Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 332 of 560 Sheet 1 of 5 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1-065 Equipment ID No. F-52B Equip. Class¹ 17 – ENGINE GENERATORS Equipment Description DG2 ENGINE MOUNTED TURBO FILTER Location: Bldg. RAB Floor El. 369 Room, Area 86 Manufacturer, Model, Etc. (optional but recommended) <u>Electro-Motive</u> Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. Anchorage 1. Is the anchorage configuration verification required (i.e., is the item one $Y \square N \boxtimes$ of the 50% of SWEL items requiring such verification)? No anchorage configuration verification required. 2. Is the anchorage free of bent, broken, missing or loose hardware? The anchorage is free of bent, broken, missing and loose hardware. 3. Is the anchorage free of corrosion that is more than mild surface oxidation? The anchorage is free of corrosion. 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? This component is anchored directly to the EDG skid. No cracks in concrete around skid observed.

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-065</u> | Status: Y⊠ N∏ U∏ | | | | |
|---|------------------|--|--|--|--|
| Equipment ID No. <u>F-52B</u> Equip. Class ² <u>17 – ENGINE GENERATORS</u> | | | | | |
| Equipment Description DG2 ENGINE MOUNTED TURBO FILTER | | | | | |
| 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.) | | | | | |
| This is not applicable since it is not part of the 50% of SWEL items requiring anchorage configuration verification. | | | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U | | | | |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | | | | | |
| Interaction Effects | · · | | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? The turbocharger filter is bolted at the rear end of the diesel engine. There were no major structures or equipment that could have any significant interaction with the filter. | 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 overhead duct work that is properly secured with steel hangers. | | | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ | | | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | | | | | |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | | | | | |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 | 5 | | | | |
|---|------------------|--|--|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-065</u> | Status: Y⊠ N□ U□ | | | | |
| Equipment ID No. F-52B Equip. Class3 17 - ENGINE GENE | ERATORS | | | | |
| Equipment Description DG2 ENGINE MOUNTED TURBO FILTER | | | | | |
| Other Adverse Conditions | | | | | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI | | | | |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. | | | | | |
| | | | | | |

Comments (Additional pages may be added as necessary)

The Turbocharger Filter is a critical component of the diesel engine. Every mounting bolt was observed to be in place. The entire engine appeared clean and well maintained. There were no visible leaks or signs of previous leaks at any location were accessory components were bolted to the main engine block.



| Evaluated by: Daniel Parker Om R R | _ Date: | 10/03/2012 |
|------------------------------------|---------|------------|
| Eric Dilbone Eric Dec | _ | 10/03/2012 |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-065</u>

Equipment ID No. F-52B Equip. Class⁵ 17 - ENGINE GENERATORS

Equipment Description DG2 ENGINE MOUNTED TURBO FILTER



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sciencie Welkdown Checklist (SWC) SWEL1 066 | | | | | |
|--|--|--|--|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-066</u> | | | | | |
| Equipment ID No. <u>M-225B</u> Equip. Class <u>1 17 – Engine Generators</u> | | | | | |
| Equipment Description DIESEL GENERATOR TURBOCHARGER | | | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</u> | | | | | |
| Manufacturer, Model, Etc. (optional but recommended) <u>Electro-Motive T2001</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 | | | | | |
| Is the anchorage configuration verification required (i.e., is the item one Y NK No f the 50% of SWEL items requiring such verification)? No anchorage configuration verification required. | | | | | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ The anchorage is free of bent, broken, missing and loose hardware. | | | | | |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? The anchorage is free of corrosion. | | | | | |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? This component is anchored directly to the EDG skid. | | | | | |

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Sheet 1 of 5

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

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| | Status: Y🛛 N🗌 U🗌 | | | | | |
|--|---------------------------------------|--|--|--|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-066</u> | | | | | | |
| Equipment ID No. <u>M-225B</u> Equip. Class ² <u>17 – Engine Generators</u> | | | | | | |
| Equipment Description DIESEL GENERATOR TURBOCHARGER | • • • • • • • • • • • • • • • • • • • | | | | | |
| 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.) | | | | | | |
| This is not applicable since it is not part of the 50% of SWEL items requiring anchorage configuration verification. | | | | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U | | | | | |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | | | | | | |
| Interaction Effects | | | | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? The turbocharger is bolted at the rear end of the diesel engine. There were no significant structures or equipment that could have any significant interaction with the turbocharger. | 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 overhead duct work that is properly secured with steel hangers. | | | | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ | | | | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI | | | | | |

Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Sheet 2 of 5

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² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-066</u> | Status: Y⊠ N⊡ U⊡ |
|--|---------------------------------------|
| Equipment ID No. <u>M-225B</u> Equip. Class ³ <u>17 – Engine Generator</u> | <u>S</u> |
| Equipment Description DEISEL GENERATOR TURBOCHARGER | · · · · · · · · · · · · · · · · · · · |
| Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. | |

Comments (Additional pages may be added as necessary)

Sheet 3 of 5

The turbocharger is a critical component of the diesel engine. Every mounting bolt was observed to be in place. The entire engine appeared clean and well maintained. There were no visible leaks or signs of previous leaks at any location were accessory components were bolted to the main engine block.



Three-Quarter Right Rear View, 16-Cylinder

| Evaluated by: <u>Daniel Parker</u> | Date: | 10/22012 | |
|------------------------------------|-------|-----------|--|
| Eric Dilbone Eric Dec | - | 10/2/2012 | |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1-066____

Equipment ID No. <u>M-225B</u> Equip. Class4<u>17 – Engine Generators</u>

Equipment Description DEISEL GENERATOR TURBOCHARGER

Photographs





⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Seismic Walkdown Checklist (SWC) SWEL 1- 067 |
|--|
| |
| Equipment ID No. <u>SS-5211</u> Equip. Class ¹ <u>18 - Instrument Racks</u> |
| Equipment Description DG1 OVERSPEED TRIP SWITCH |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>87</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N |
| Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ The bolts anchoring the switch to the EDG skid are free of bent, broken, missing and loose hardware. |
| 3. Is the anchorage free of corrosion that is more than mild surface YX N UNA |
| The anchorage had very mild surface oxidation, but is free of corrosion otherwise. No adverse seismic conditions exist because of this. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y∑ N□ U□ N/A□ anchors? |
| The switch is anchored to the EDG. No cracks around EDG skid were observed. |

Sheet 1 of 5

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

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| Solen | nic Walkdov | wn Chacklist (SWC) | SWEL 1- 06 | 37 | Status: | Y⊠ N□ U□ |
|--------|--|---|--|--|---------|-----------|
| Equip | ment ID No. | <u>SS-5211</u> | Equip. Class | 18 - Instrument Racks | | |
| Equipi | ment Descript | tion <u>DG1 OVERSPEEL</u> | TRIP SWITC | Н | | |
| 5. | Is the ancho (Note: This o an anchorag | prage configuration cons question only applies if t ge configuration verificat | istent with plar he item is one ion is required | nt documentation? of the 50% for which .) | Y N | U N/A |
| | This does no anchorage o | ot apply since this item i configuration verification | is not part of th | e 50% requiring | | |
| 6. | Based on th potentially a | e above anchorage eva dverse seismic conditio | luations, is the ns? | anchorage free of | Y⊠ N□ | U |
| | All visible ar conditions. | nchorage was free of po | tentially advers | se seismic | | |
| Intera | ction Effects | <u> </u> | | | | |
| 7. | Are soft targ There are no or structures | gets free from impact by o soft targets that could s. | nearby equipn be impacted b | nent or structures? y nearby equipment | Y N | U N/A |
| 8. | Are overhea and masonr There are no are in good | ad equipment, distribution block walls not likely to masonry block walls of condition, and do not pr | n systems, cei o collapse onto r ceiling tiles ir esent an intera | ling tiles and lighting, the equipment? the room. The lights action effect. | Y⊠N⊟ | U[] N/A[] |
| 9. | Do attached The attache | l lines have adequate fle ad lines have adequate f | exibility to avoid <i>lexibility.</i> | d damage? | Y⊠N□ | U N/A |
| 10. | Based on th of potentially | ne above seismic interac y adverse seismic intera | tion evaluation | is, is equipment free | Y⊠ N□ | U |
| | | | | | | |

Based on the above evaluation, the switch is free of potentially adverse seismic interaction effects.

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|-------|------|---|
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| Seismic Walkdown Checklist (SWC) SWEL1- 067 | Status: Y🛛 N🗍 U |
|---|--------------------------------|
| Equipment ID No. <u>SS-5211</u> Equip. Class <u>18 - Instrument Racks</u> | 5 |
| Equipment Description <u>DG1 OVERSPEED TRIP SWITCH</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX N U |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| | |
| Comments (Additional pages may be added as necessary) | |
| CC E211 is not immediately identifiable using the primary any inment ID | had A tag of "C 22" is visible |

SS-5211 is not immediately identifiable using the primary equipment ID tag. A tag of "S 23" is visible on the component, and this is listed in Asset Suite as a Component Alternate Tag for SS-5211.

| Evaluated by: Daniel Parker | Date: <u>10/11/2012</u> | |
|-----------------------------|-------------------------|--|
| Eric Dilbone Erin Dia | 10/11/2012 | |
| | | |

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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. <u>SS-5211</u> Equip. Class <u>18 - Instrument Racks</u>

Equipment Description DG1 OVERSPEED TRIP SWITCH

Photographs



Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. <u>SS-5211</u> Equip. Class<u>18 - Instrument Racks</u>

Equipment Description DG1 OVERSPEED TRIP SWITCH



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| Sheet 1 01 4 | |
| Seismic Walkdown Checklist (SWC) <u>SWE</u> | Status: Y⊠ N∐ U∐ _1-068 |
| Equipment ID No. <u>SE-5220</u> Equip. | Class1_ <u>18 - INSTRUMENT RACKS</u> |
| Equipment Description SPEED DETECTOR FOR | K-4B |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> | _ Room, Area <u>86</u> |
| Manufacturer, Model, Etc. (optional but recommend | ed) |
| 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 tions may be used to record the results of judgments and this checklist for documenting other comments. |
| Anchorage | |
| Is the anchorage configuration verification re of the 50% of SWEL items requiring such verification | equired (i.e., is the item one Y NX rification)? |
| Anchorage configuration verification is not r | equired for this component. |
| 2. Is the anchorage free of bent, broken, missi The anchorage hardware is free of bent, bro hardware. | ng or loose hardware? Y N U N/A |
| Is the anchorage free of corrosion that is mo oxidation? The anchorage is free of corrosion. | re than mild surface Y⊠ N⊡ U⊡ N/A⊡ |
| Is the anchorage free of visible cracks in the anchors? The component is not anchored into concre is not applicable. | concrete near the $Y \square N \square U \square N/A \boxtimes$ te; therefore, this question |

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

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| | Status: Y🛛 N🗌 U🗌 |
|--|------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-068</u> | |
| Equipment ID No. <u>SE-5220</u> Equip. Class <u>18 - INSTRUMENT R</u> | ACKS |
| Equipment Description SPEED DETECTOR FOR K-4B | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | |
| Anchorage configuration verification is not required for this component; therefore, this question is not applicable. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Based on the above anchorage evaluation, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? The primary soft target in the area is the electrical cable connected to SE-5220. The cable is free from impact by any nearby equipment or structures. | YX 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 are no potential interactions with overhead equipment, lighting or masonry block walls. | Y⊠ N∏ U∏ N/A∏ |
| 9. Do attached lines have adequate flexibility to avoid damage? The 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? | YX NI UI |

Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

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| | Status: Y🛛 N🗌 U |
|---|------------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-068</u> | |
| Equipment ID No. <u>SE-5220</u> Equip. Class <u>18 - INSTRUMENT R</u> | ACKS |
| Equipment Description SPEED DETECTOR FOR K-4B | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI |
| It was looked for, and no seismic conditions that could adversely affect the safety function of the equipment was found. | |
| Comments (Additional pages may be added as necessary) | |
| SE-5220, Speed Detector for K-4B does not have an equipment tag; the | component location was |

Sheet 3 of 4

SE-5220, Speed Detector for K-4B does not have an equipment tag; the component location was positively identified on design drawings and field verified by the Unit 1 Emergency Diesel Generators System Engineer. The Speed Detector is very well anchored.

| Evaluated by: Chris Johnson C.D. Be | Date: <u>11/08/12</u> |
|-------------------------------------|-----------------------|
| Ojaswi Shrestha Ojaswi Shresthe. | 11/08/12 |

Sheet 4 of 4

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-068

Equipment ID No. <u>SE-5220</u> Equip. Class <u>18 - INSTRUMENT RACKS</u>

Equipment Description SPEED DETECTOR FOR K-4B

Photographs



Note: This photo shows the relative location of SE-5220 on K-4B.



Note: SE-5220 is mounted next the flywheel as indicated by the yellow arrow.

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| Sheet 1 of 5 |
| Status: Y⊠ N⊡ U⊡ |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-069</u> |
| Equipment ID No. <u>PS-5284</u> Equip. Class ¹ <u>18 – INSTRUMENT RACKS</u> |
| Equipment Description K4B CRANKCASE PRESS HI |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</u> |
| Manufacturer, Model, Etc. (optional but recommended) <u>Electro-Motive 645E4B Turbocharged Diesel Engine</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y NX NX of the 50% of SWEL items requiring such verification)? |
| No anchorage configuration verification required. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N U N/A |
| The anchorage is free of bent, broken, missing and loose hardware. |
| |
| 3. Is the anchorage free of corrosion that is more than mild surface YX N UN/A |
| The anchorage is free of corrosion. |
| |
| 4. Is the anchorage free of visible cracks in the concrete hear the YV NU VV N/AU anchors? |
| This component is anchored directly to the EDG skid. No cracks in the concrete around the anchorage of the skid were observed. |

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-069</u> | Status: Y⊠ N⊟ U⊟ |
|---|------------------|
| Equipment ID No. <u>PS-5284</u> Equip. Class <u>2 18 – INSTRUMENT I</u> | RACKS |
| Equipment Description K4B CRANKCASE PRESS HI | |
| 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.) <i>This is not applicable since it is not part of the 50% of SWEL items</i> | |
| requiring anchorage configuration verification.6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | <u></u> |
| 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact by nearby equipment and structures. | YX N UN N/A |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead equipment, distribution systems and lighting are not likely to collapse onto the equipment. | Y⊠ N□ U□ N/A□ |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |
| based on the above seismic interaction evaluations, the equipment is | |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

free of potentially adverse seismic interaction effects.

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| Seismic Walkdown Checklist (SWC) | SWEL1-069 | Status: Y⊠ N⊡ U⊡ |
|--|---|------------------|
| Equipment ID No. <u>PS-5284</u> | Equip. Class <u>3_18 – INSTRUME</u> | NT RACKS |
| Equipment Description K4B CRANKCASE | PRESS HI | |
| Other Adverse Conditions | | |
| Have you looked for and found no o adversely affect the safety functions | ther seismic conditions that could of the equipment? | |
| It was looked for, and no other seisr affect the safety functions of the equ | nic conditions that could adverse upment were found. | ly |
| | | |

Comments (Additional pages may be added as necessary)

Sheet 3 of 5

The Crankcase Pressure Detector is a critical component of the diesel engine. Every mounting bolt was observed to be in place. The entire engine appeared clean and well maintained. There were no visible leaks or signs of previous leaks at any location were accessory components were bolted to the main engine block.

| Crankcase Pressure Detector Trae-Quarter Left Front View, 16-Cylinder | | 21463 |
|--|-------|-----------|
| | | |
| Evaluated by: Daniel Parker | Date: | 10/2/2012 |
| Eric Dilbone Eric Dec | | 10/2/2012 |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1-069

Equipment ID No. <u>PS-5284</u> Equip. Class4<u>18 – INSTRUMENT RACKS</u>

Equipment Description K4B CRANKCASE PRESS HI

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-069

Equipment ID No. <u>PS-5284</u> Equip. Class⁵ <u>18 – INSTRUMENT RACKS</u>

Equipment Description K4B CRANKCASE PRESS HI



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX NI U |
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| Equipment ID No. <u>D14</u> Equip. Class <u>118 - Instrument Racks</u> |
| Equipment Description D06 MANUAL DISCONNECT |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>98</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? This item is part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ No bent broken or missing hardware was found. |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? No corrosion was observed. |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? Concrete around anchors in support frame base plates were observed to be free of cracks. |

Sheet 1 of 5

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

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| Sheet | 2 | of | 5 |
|-------|---|----|---|
|-------|---|----|---|

| | Status: Y🛛 N🗌 U |
|---|---------------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-070</u> | |
| Equipment ID No. <u>D14</u> Equip. Class <u>18 - Instrument</u> | t Racks |
| Equipment Description D06 MANUAL DISCONNECT | |
| Is the anchorage configuration consistent with plant documentatio (Note: This question only applies if the item is one of the 50% for an anchorage configuration verification is required.) | n? YX N UNA |
| 94-SQ-1001-18, pages 19-29. | |
| 6. Based on the above anchorage evaluations, is the anchorage free potentially adverse seismic conditions? | eof Y⊠ N□ U□ |
| Anchorage was determined to be free from adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structure No soft targets were observed. | es? YX N U N/A |
| Are overhead equipment, distribution systems, ceiling tiles and lig and masonry block walls not likely to collapse onto the equipment Overhead support conditions appeared to be adequate. | hting, Y⊠ N⊡ U⊡ N/A⊡ ? |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines appear to be ok (both flexible and rigid conduits) | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment of potentially adverse seismic interaction effects? | tfree YX N U |

No adverse seismic interaction conditions were observed.

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| Sheet 3 of 5 | | | |
|---|------------------|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 070</u> | Status: Y⊠ N□ U□ | | |
| Equipment ID No. <u>D14</u> Equip. Class <u>18 - Instrument Racks</u> | | | |
| Equipment Description D06 MANUAL DISCONNECT | | | |
| Other Adverse Conditions | | | |
| 11. Have you looked for and found no other seismic conditions that could YX N U | | | |
| No other adverse seismic conditions were observed. | | | |
| <u>Comments</u> (Additional pages may be added as necessary) No adverse seismic conditions were observed. | | | |

| Evaluated by: Daniel Andon Kill All | Date: | 10/10/2012 |
|-------------------------------------|-------|------------|
| Genaro Barragan Jr. | | 10/10/2012 |

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 Status: Y⊠ N□ U□

 Seismic Walkdown Checklist (SWC) _______

 Equipment ID No. ______

 Equipment Description ______

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 Image: Status: Y⊠ N□ U□

 Equipment Description _______

 Equipment Description _______

 Photographs

 Image: Status: Y⊠ N□ U□

 Equipment Description _______

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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-070

Equipment ID No. <u>D14</u> Equip. Class <u>18 - Instrument Racks</u>

Equipment Description D06 MANUAL DISCONNECT





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| Sheet 1 of 5 |
|--|
| Status: Y⊠ N⊡ U⊡ |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-071</u> |
| Equipment ID No. PT-2667A Equip. Class ¹ 18 - Instrument Racks |
| Equipment Description E24B MAIN STM PRESS-MSLI |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>144</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N of the 50% of SWEL items requiring such verification)? |
| Yes, this is one of the 50% of SWEL items requiring anchorage configuration verification. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N UN/A |
| The anchorage is free of the conditions listed above. |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? |
| The anchorage is free of corrosion. |
| Is the anchorage free of visible cracks in the concrete near the YX N□ U□ N/A□ anchors? |
| The anchorage for the plate was inspected and there were no visible cracks in the concrete. |

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-071</u> | Status: | YX N U |
|---|---------|-----------|
| Equipment ID No. <u>PT-2667A</u> Equip. Class <u>18 - Instrument Racks</u> | | |
| Equipment Description E24B MAIN STM PRESS-MSLI | | |
| 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.) | YX N | U[] N/A[] |
| Yes, anchorage configuration is consistent with CALC-94-SQ-1001-18, pages 202-206. | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Y⊠N∏ | υ |
| Yes, the anchorage is free of potentially adverse seismic conditions. | | |
| Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? All soft targets are free from impact by nearby equipment | 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? Overhead equipment is not likely to collapse onto the pressure transmitter. This room is not crowded and items are well dispersed throughout the room. | Y⊠ N□ | |
| 9. Do attached lines have adequate flexibility to avoid damage? All attached lines appear to have adequate flexibility. | Y⊠ N□ | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | Y⊠ N□ | υ |

Equipment is free of potentially adverse interaction effects.

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| Seismic Walkdown Checklist (SWC) SWEL1-071 |] |
|--|---|
| Equipment ID No. <u>PT-2667A</u> Equip. Class <u>18 - Instrument Racks</u> Equipment Description <u>E24B MAIN STM PRESS-MSLI</u> | _ |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment? | |
| Yes, no other seismic conditions that could adversely affect the safety functions of the equipment were identified. | |
| Comments (Additional pages may be added as necessary) | |

Sheet 3 of 5

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Anchorage was consistent with the plant documentation. The anchorage of concern was the 16 x 30 x ¼ inch plate anchored to the wall. The pressure transmitter (PT-2667A) was bolted to this plate. The plate was bolted to the wall with a pair of Unistruts. Each Unistrut was anchored with two expansion anchors. See SEWS package, PT-2667A (Rev.0) for more details.

| Evaluated by: <u>Genaro Barragan Jr.</u> | Date: | 10/9/2012 |
|--|-------|-----------|
| Eric Dilbone Eric Dec | | 10/9/2012 |

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Status: YX N U

Seismic Walkdown Checklist (SWC) _ SWEL1-071_

Equipment ID No. PT-2667A Equip. Class 18 - Instrument Racks

Equipment Description E24B MAIN STM PRESS-MSLI

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-071</u>

Equipment ID No. <u>PT-2667A</u> Equip. Class_<u>18 - Instrument Racks</u>

Equipment Description E24B MAIN STM PRESS-MSLI



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| Sheet 1 of 5 | |
|---|---|
| | Status: Y N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-072</u> | |
| Equipment ID No. <u>N/A</u> Equip. Class ¹ <u>N/A</u> | |
| Equipment Description <u>NOT USED</u> | |
| Location: Bldg. <u>N/A</u> Floor El. <u>N/A</u> Room, Area <u>N/A</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 a SWEL. The space below each of the following questions may be used to record t findings. Additional space is provided at the end of this checklist for documenting | an item of equipment on the he results of judgments and other comments. |
| Anchorage | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Y N |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Y N U N/A |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Y N U VA |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Y N U N/A |

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

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| Sheet 2 of 5 | | | | |
|--|---|--|-----------|---------|
| Seismic Walkdov | wn Checklist (SWC) | SWEL1-072 | Status: ` | |
| Equipment ID No. | <u>N/A</u> | Equip. Class_ <i>N/A</i> | | |
| Equipment Descript | tion <u>NOT USED</u> | | | |
| 5. Is the ancho (Note: This c an anchorag | rage configuration cons question only applies if t le configuration verificat | istent with plant documentation? the item is one of the 50% for which tion is required.) | Y N U | □ N/A□ |
| 6. Based on the above anchorage evaluations, is the anchorage free of Y N U U potentially adverse seismic conditions? | | | | |
| Interaction Effects 7. Are soft targ | ets free from impact by | nearby equipment or structures? | Y N U | □ N/A□ |
| 8. Are overhea and masonry | d equipment, distributio y block walls not likely t | n systems, ceiling tiles and lighting, o collapse onto the equipment? | Y N U | □ N/A□ |
| 9. Do attached | lines have adequate fle | exibility to avoid damage? | Y N U | I∏ N/A∏ |
| 10. Based on th | e above seismic interac | tion evaluations, is equipment free | Y NU U | |

of potentially adverse seismic interaction effects?
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| Sheet 3 of 5 | I age 5 |
|---|---------------|
| | Status: Y N N |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-072</u> | |
| Equipment ID No. <u>N/A</u> Equip. Class <u>N/A</u> | |
| Equipment Description <u>NOT USED</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | Y N U |
| | |
| <u>Comments (</u> Additional pages may be added as necessary) | |
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| Sheet 4 of 5 | | | |
|------------------------------------|-------------|---------------|---------------------------------------|
| | | | Status: Y N U |
| Seismic Walkdown Checklist (SWC) _ | SWEL1-0 | 72 | |
| Equipment ID No. <u>N/A</u> | Equip. Clas | s_ <u>N/A</u> | |
| Equipment Description NOT USED | | | · · · · · · · · · · · · · · · · · · · |
| Photographs | | | |
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| Sheet | 5 | of | 5 |
|-------|---|----|---|
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| Seismic Walkdown Checklist (SWC) <u>SWEL1-072</u> | | Status: Y N I | |
|---|-------------|---------------|---------------------------------------|
| Equipment ID No. <u>N/A</u> | Equip. Clas | s_ <u>N/A</u> | |
| Equipment Description NOT USED | | | |
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| Seismic Walkdown Checklist (SWC) <u>SWEL1-073</u> Status: YX N |
|--|
| Equipment ID No. LSL-5206 Equip. Class ¹ _18 - Instrument Racks |
| Equipment Description LOW LEVEL DIESEL SWITCH |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>87</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ The bolts anchoring the switch to the EDG skid are free of bent, broken, missing and loose hardware. |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? |
| The anchorage had very mild surface oxidation, but is free of corrosion otherwise. |
| Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? |
| The switch is anchored to the EDG skid. No cracks in concrete were observed around the skid anchorage. |

Sheet 1 of 5

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

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| Sheet | 2 | of | 5 |
|-------|---|----|---|
|-------|---|----|---|

| | Status: Y🛛 N🗌 U🔲 |
|---|------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 073</u> | |
| Equipment ID No. <u>LSL-5206</u> Equip. Class² <u>18 - Instrument Rac</u> | ks |
| Equipment Description LOW LEVEL DIESEL SWITCH | |
| 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.) <i>This does not apply since this item is not part of the 50% requiring</i> | |
| anchorage configuration | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| All anchorage was free of potentially adverse seismic conditions. | |
| | |
| Interaction Effects | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted by nearby equipment or structures. | Y N N U N/A |
| | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | Y N N U N/A |
| There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect. | 5 |
| 9. Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | YX N U N/A |
| | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |
| Based on the above evaluation, the component is free of potentially adverse seismic interaction effects. | |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 | |
|---|---------------------------|
| | Status: Y🛛 N🗌 U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 073</u> | |
| Equipment ID No. <u>LSL-5206</u> Equip. Class <u>3_18 - Instrument Rack</u> | (S |
| Equipment Description LOW LEVEL DIESEL SWITCH | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | YX NI UI |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: Daniel Parker | _ Date: <u>10/11/2012</u> |
| Eric Dilbone Eric Dec | <u>10/11/2012</u> |
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³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. <u>LSL-5206</u> Equip. Class4<u>18 - Instrument Racks</u>

Equipment Description LOW LEVEL DIESEL SWITCH

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-073</u>

Equipment ID No. LSL-5206 Equip. Class⁵ 18 - Instrument Racks

Equipment Description <u>LOW LEVEL DIESEL SWITCH</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Seiemie Welkdeum Checklist (SWC) SWEL1 074 | Status: Y⊠ N∏ U∏ | | | |
|--|------------------|--|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-074</u> | | | | |
| Equipment ID No. <u>PT-2812</u> Equip. Class ¹ <u>18 – INSTRUMENT F</u> | ACKS | | | |
| Equipment Description EFWP P-7B DISCHARGE PRESSURE | | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>38</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 | | | | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Y N | | | |
| No anchorage configuration verification required. | | | | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? The observed anchorage is free of bent, broken, missing and loose hardware. | Y⊠ N□ U□ N/A□ | | | |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? The observed anchorage is free of corrosion | Y⊠ N□ U□ N/A□ | | | |
| | | | | |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | Y□ N□ U□ N/A⊠ | | | |
| The component is anchored by a bracket to a clamp on a pipe, so concrete near the anchorage is not applicable. | | | | |

Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-074</u> | Status: Y⊠ N⊟ U⊟ | | | | |
|---|------------------|--|--|--|--|
| Equipment ID No. PT-2812 Equip. Class ² 18 – INSTRUMENT RACKS | | | | | |
| Equipment Description EFWP P-7B DISCHARGE PRESSURE | | | | | |
| 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.) <i>This is not part of the 50%.</i> | Y N UNAX | | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U | | | | |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | | | | | |
| Interaction Effects | | | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? All adjacent equipment are adequately spaced apart from each other where this component is mounted. | YX N U N/A | | | | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All overhead piping systems and electrical conduit are adequately secured. | Y⊠ N□ U□ N/A□ | | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ | | | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI | | | | |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | | | | | |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX N U |
|---|
| Equipment ID No. <u>PT-2812</u> Equip. Class <u>3 18 – INSTRUMENT RACKS</u> |
| Equipment Description EFWP P-7B DISCHARGE PRESSURE |
| Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? A fire extinguisher is mounted on the wall near this component. |
| Comments (Additional pages may be added as necessary) |
| The PT-2812 component is clamped to an ~ 1 ½ " diameter pipe support bolted into the adjacent RC wall. This pipe support and clamp appear to be adequately secure to support the equipment during a seismic event. |

| Evaluated by: Michael E. Perez | Date: <u>10/8/2012</u> | |
|--------------------------------|------------------------|--|
| Daniel Parker Daul R R | 10/8/2012 | |

Sheet 3 of 5

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-074</u>

Equipment ID No. <u>PT-2812</u> Equip. Class4 <u>18 – INSTRUMENT RACKS</u>

Equipment Description EFWP P-7B DISCHARGE PRESSURE

Photographs



Note: *PT-2812 with equipment identification tag.*



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-074</u>

Equipment ID No. PT-2812 Equip. Class⁵ 18 - INSTRUMENT RACKS

Equipment Description EFWP P-7B DISCHARGE PRESSURE





⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 1 of 5 | |
|---|---|
| | Status: Y N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-075</u> | |
| Equipment ID No. <u>N/A</u> Equip. Class <u>1 N/A</u> | |
| Equipment Description NOT USED | · |
| Location: Bldg. <u>N/A</u> Floor El. <u>N/A</u> Room, Area <u>N/A</u> | |
| Manufacturer, Model, Etc. (optional but recommended) | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting | an item of equipment on the the results of judgments and gother comments. |
| Anchorage | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Y N |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Y N N U N/A |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | |

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

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| Sheet 2 of 5 | rage 362 01 500 |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-07</u> | Status: Y N U |
| Equipment ID No. <u>N/A</u> Equip. Class | Ν/Α |
| Equipment Description NOT USED | |
| Is the anchorage configuration consistent with pla (Note: This question only applies if the item is one an anchorage configuration verification is required | nt documentation? Y N U N/A of the 50% for which I.) |
| 6. Based on the above anchorage evaluations, is the potentially adverse seismic conditions? | e anchorage free of Y N U |
| Interaction Effects 7. Are soft targets free from impact by nearby equip | ment or structures? Y N U N/A |
| Are overhead equipment, distribution systems, ce and masonry block walls not likely to collapse ont | iling tiles and lighting, Y N N U N/A ↓ |
| 9. Do attached lines have adequate flexibility to avoi | d damage? Y N U N/A |
| 10. Based on the above seismic interaction evaluation of potentially adverse seismic interaction effects? | ns, is equipment free Y N U |

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|---|----------------------------|--------------------|---|
| Sheet 3 of 5 | | | <u>0</u> |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-075</u> | <u></u> | Status: Y | |
| Equipment ID No. <u>N/A</u> Equip. Class_ <u>N</u> | I/A | | |
| Equipment Description <u>NOT USED</u> | | | |
| Other Adverse Conditions | | | |
| Have you looked for and found no other seismic cor adversely affect the safety functions of the equipme | nditions that could nt? | Y N U | |
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| Comments (Additional pages may be added as necessary |) | | |
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| Sheet 4 of 5 | | | |
|----------------------------------|--|-----------|--|
| | | Status: Y | |
| Seismic Walkdown Checklist (SWC) | SWEL1-07 | i | |
| Equipment ID No. <u>N/A</u> | Equip. Class_ | V/A | |
| Equipment Description NOT USED | •••••••••••••••••••••••••••••••••••••• | | |
| Photographs | · | | |
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Status: Y N U

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|-------|--------|
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| Seismic Walkdown Checklist (SWC) <u>SWEL1-075</u> | | | |
|---|--------------------------|--|--|
| Equipment ID No. <u>N/A</u> | Equip. Class_ <i>N/A</i> | | |
| Equipment Description NOT USED | | | |
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Note: Note:

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| | |
| Status: Y NX U | |

| Seismic Walkdown Checklist (SWC) <u>SWEL1-076</u> | |
|---|---|
| Equipment ID No. <u>TE-1139</u> Equip. Class <u>1 19 – Temperature Se</u> | nșors |
| Equipment Description 'B' LOOP TH TEMP | |
| Location: Bldg. <u>RB</u> Floor El. <u>410</u> Room, Area <u>150</u> | |
| Manufacturer, Model, Etc. (optional but recommended) | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting | an item of equipment on the the results of judgments and gother comments. |
| Anchorage | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Y NX |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? | Y□ N□ U⊠ N/A□ |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | Y |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | |

Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) SWEL1-076 | Status: Y N⊠ U |
|---|----------------|
| Equipment ID No. TE-1139 Equip. Class 19 – Temperature Ser | nsors |
| Equipment Description <u>'B' LOOP TH TEMP</u> | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Y NU UX |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? | Y N UX N/A |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | |
| 9. Do attached lines have adequate flexibility to avoid damage? | Y□ N□ U⊠ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |

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|---|---|
| | Status: VI NM UI |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-076</u> | |
| Equipment ID No. <u>TE-1139</u> Equip. Class <u>19 – Temperature Se</u> | ensors |
| Equipment Description <u>B' LOOP TH TEMP</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | Y NUV |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: | Date: |
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| Status | vП | NΜ | uП |
|---------|----|----|----|
| Status. | | | |

Seismic Walkdown Checklist (SWC) SWEL1-076

Equipment ID No. <u>TE-1139</u> Equip. Class <u>19 – Temperature Sensors</u>

Equipment Description <u>'B' LOOP TH TEMP</u>

 Photographs

 Note:
 Note:

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Sheet 5 of 5

Status: Y NX U

Seismic Walkdown Checklist (SWC) <u>SWEL1-076</u>

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Equipment ID No. <u>TE-1139</u> Equip. Class <u>19 – Temperature Sensors</u>

Equipment Description <u>'B' LOOP TH TEMP</u>

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| Status: Y N U |
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| Seismic Walkdown Checklist (SWC) <u>SWEL1-077</u> |
| Equipment ID No. <u>TS-7904</u> Equip. Class ¹ <u>19 – TEMPERATURE SENSORS</u> |
| Equipment Description H&V EMGCY D-G RM FAN D |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? |
| This item is part of the 50% configuration check. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ The anchorage is free of bent, broken, missing and loose hardware. |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? The anchorage is free of corrosion. |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? Mounted to Unistrut. Unistrut anchorage to concrete. Concrete is free |

Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-077</u> | Status: Y⊠ N∏ U∏ |
|--|------------------|
| Equipment ID No. <u>TS-7904</u> Equip. Class <u>2_19 – TEMPERATUR</u> | E SENSORS |
| Equipment Description <u>H&V EMGCY D-G RM FAN D</u> | |
| 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.) | |
| TS-7904 temperature sensor is mounted to piece of Unistrut which is adequately anchored to the north wall near the center of the room. The anchorage configuration is consistent with CALC-94-SQ-1001-19, page 32. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? All components mounted on the wall near TS-7904 are mounted similarly on anchored uni-strut. Overhead fluorescent lighting fixtures are adequately secured to prevent falling during a seismic event. | Y⊠ N∏ U∏ N/A∏ |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? All rigid electrical conduit, piping, and exhaust ducts overhead are adequately secured to prevent any seismic interaction with the component. | Y⊠ N□ U□ N/A□ |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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|---|
| Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-077</u> |
| Equipment ID No. <u>TS-7904</u> Equip. Class <u>3_19 – TEMPERATURE SENSORS</u> |
| Equipment Description <u>H&V EMGCY D-G RM FAN D</u> |
| Other Adverse Conditions |
| 11. Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment? |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. |
| Comments (Additional pages may be added as necessary) |
| The component was mounted to a piece of uni-strut anchored to the RC wall. The anchorage was judged to be adequate and sufficient as per ANO documentation, 6030.113 Seismic Raceway Supports, Attachment 3, Support Mounting Details, Attachment 10, Box Supports. |
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| Evaluated by: Eric Dilbone Eric Dec | Date: | 10/2/2012 |
|-------------------------------------|-------|-----------|
| Daniel Parker Oak Rham | | 10/2/2012 |
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| ³ Enter the equipment class nat | me from Appendix B: | Classes of Equipment. |
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Equipment ID No. <u>TS-7904</u> Equip. Class4<u>19 – TEMPERATURE SENSORS</u>

Equipment Description <u>H&V EMGCY D-G RM FAN D</u>

Seismic Walkdown Checklist (SWC) <u>SWEL1-077</u>

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-077</u>

Equipment ID No. <u>TS-7904</u> Equip. Class⁵<u>19 – TEMPERATURE SENSORS</u>

Equipment Description <u>H&V EMGCY D-G RM FAN D</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Engineering Report No. CALC-ANO1-CS-12-00002 t 5 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1-078 _____ Equip. Class¹_20 - Instrumentation and Control Panels Equipment ID No. <u>C10</u> Equipment Description VERT BD - ELEC AUX Location: Bldg. RAB ____ Floor El. <u>386</u> Room, Area 129 Manufacturer, Model, Etc. (optional but recommended) Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. Anchorage 1. Is the anchorage configuration verification required (i.e., is the item one $Y \square N \boxtimes$ of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. 2. Is the anchorage free of bent, broken, missing or loose hardware? Visual confirmation of 7 welds on front of cabinet in good condition. It was confirmed that 2 anchor bolts in the front of the cabinet are in good shape. The 2 corresponding anchor bolts in the rear of the cabinet were not visible due to wires on floor.

3. Is the anchorage free of corrosion that is more than mild surface oxidation?

No mild surface oxidation present.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Cabinet is welded to an embedded steel channel, but the concrete

surrounding the channel was free of cracks.

| ¹ Enter the equipment class name | from Appendix B: | Classes of Equipment |
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| YΠ | N | UΠ | N/A |
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| Y⊠ | N | υ | N/A |
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| Engineering | g Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 397 of 560 |
|--|---|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-078</u> | Status: YX N U |
| Equipment ID No. <u>C10</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description VERT BD – ELEC AUX | |
| 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.) All anchorage that was visible was confirmed against CALC-94-SW- 1001-20, pages 39-52, but not all anchorage could be seen. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U |
| All visible anchorage was free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted 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? | |
| Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | |
| 9. Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI |
| adverse seismic interaciton effects. | |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 | |
|--|--------------------------|
| | Status: Y⊠ N∏ U∏ |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-078</u> | |
| Equipment ID No. <u>C10</u> Equip. Class <u>3</u> 20 - Instrumentation | and Control Panels |
| Equipment Description VERT BD – ELEC AUX | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX N U |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: Roy Berryman | _ Date: <u>10/4/2012</u> |
| Eric Dilbone Crin Dec | 10/4/2012 |
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³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-078</u>

Equipment ID No. <u>C10</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description VERT BD - ELEC AUX

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-078</u>

Equipment ID No. <u>C10</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description VERT BD - ELEC AUX



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 079</u> |
| Equipment ID No. <u>PY-2618-A1</u> Equip. Class ¹ 20 - Instrumentation and Control Panels |
| Equipment Description I/V CONVERTER STM GEN A PRESS |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)? |
| This item is not part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N UN N/A |
| This component is located in a nest in cabinet C539A. No bent, broken, missing or loose hardware was observed. |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? |
| No corrosion was observed. |
| Is the anchorage free of visible cracks in the concrete near the YX N□ U□ N/A□ anchors? |
| The component is located in a nest of cabinet C539A. No cracks in the concrete were observed around the panel anchorage |

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

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| | Status: Y🛛 N 🗌 U 🗌 |
|--|--------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 079</u> | |
| Equipment ID No. <u>PY-2618-A1</u> Equip. Class ² <u>20 - Instrumentation a</u> | and Control Panels |
| Equipment Description I/V CONVERTER STM GEN A PRESS | |
| 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.) <i>This item is not part of the 50%.</i> | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Y⊠ N□ U□ |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact since they are in a cabinet that is latched closed. | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? <i>This does not apply since the component is located inside of a cabinet.</i> | Y□ N□ U□ N/A⊠ |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | YX NI UI |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 | |
|---|--------------------|
| Sciemic Welkdown Checklist (SWC) SWEL1 070 | Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-079</u> | |
| Equipment ID No. <u>PY-2618-A1</u> Equip. Class ³ <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description <u>I/V CONVERTER STM GEN A PRESS</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YM NO UO |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| <u>Comments</u> (Additional pages may be added as necessary) | |
| Evaluated by: Eria Dilhona trin Die | Date: 10/10/2012 |
| | Date. 10/10/2012 |

Daniel Parker Dank R

10/10/2012

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.
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Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1-079 Equipment ID No. PY-2618-A1 Equip. Class4 20 - Instrumentation and Control Panels Equipment Description I/V CONVERTER STM GEN A PRESS **Photographs** WINGSHIE & WASHERS MAINTAIN SEISMIC OUALIFICATIONS. OD NOT REMOVE Note: Sign on cabinet door. Note: Front view of component.

⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

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Seismic Walkdown Checklist (SWC) SWEL1-079

Equipment ID No. PY-2618-A1 Equip. Class⁵ 20 - Instrumentation and Control Panels

Equipment Description <u>I/V CONVERTER STM GEN A PRESS</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-080</u> Status: YX N |
| Equipment ID No. <u>PB-0144</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description START BUTTON FOR DIESEL GENERATOR #1 |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y NX N of the 50% of SWEL items requiring such verification)? |
| This item is not part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N UN N/A |
| This component is face mounted to a cabinet. No bent, broken, missing or loose hardware was observed. |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? |
| This component is face mounted to a cabinet. No corrosion was observed. |
| Is the anchorage free of visible cracks in the concrete near the YX N□ U□ N/A□ anchors? |
| This component is face mounted to a cabinet. No cracks in concrete were observed. |

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

| Seismic Walkdown Checklist (SWC) <u>SWEL1-080</u> | Status: Y⊠ N⊡ U⊡ | | | |
|--|--------------------|--|--|--|
| Equipment ID No. <u>PB-0144</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels | | | |
| Equipment Description START BUTTON FOR DIESEL GENERATOR #1 | | | | |
| 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.) <i>This item is not part of the 50%.</i> | Y□ N□ U□ N/A⊠ | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U | | | |
| The anchorage is not visible since it is mounted in the face of a panel. The cabinet could not be opened due to Control Room Operations. However, the button appears to be installed properly and there is no apparent reason why it would be adversely affected in a seismic event. | | | | |
| Interaction Effects | | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted 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? | | | | |
| Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? There are no visible attached lines, since the button is mounted on the face of a panel. | Y⊠ N∏ U∏ N/A∏ | | | |
| Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Based on the above evaluation, the button is free of potentially adverse seismic interaction effects. | YX NI UI | | | |

Sheet 2 of 4

 $^{^{\}rm 2}$ Enter the equipment class \underline{name} from Appendix B: Classes of Equipment.

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|--|
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| Sheet 3 of 4 |
|---|
| Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-080</u> |
| Equipment ID No. <u>PB-0144</u> Equip. Class <u>3 20 - Instrumentation and Control Panels</u> |
| Equipment Description START BUTTON FOR DIESEL GENERATOR #1 |
| Other Adverse Conditions |
| 11. Have you looked for and found no other seismic conditions that could YX NUU |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. |
| <u>Comments</u> (Additional pages may be added as necessary) |

| | 2012 |
|--------------------------------|------|
| Eric Dilbone Eric Decen 10/4/2 | 2012 |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 4 of 4

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-080</u>

Equipment ID No. <u>PB-0144</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description START BUTTON FOR DIESEL GENERATOR #1

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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|---|--|--|--|
| Seismic Walkdown Checklist (SWC) SWEL 1- 081 | | | |
| Equipment ID No. <u>C539A</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> Equipment Description EFIC SIGNAL CONDITIONING CABINET | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</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 1. Is the anchorage configuration verification required (i.e., is the item one Y□ N⊠ of the 50% of SWEL items requiring such verification)? This is not part of the 50%. | | | |
| Is the anchorage free of bent, broken, missing or loose hardware? Y N□ U□ N/A□ The visible anchorage is free of bent, broken and loose hardware. However, only half of the anchorage was visible. | | | |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? The visible anchorage is free of corrosion. | | | |

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| 4. | Is the anchorage free of visible cracks in the concrete near the anchors? | |
|----|---|--|
| | The cabinet anchorage is free of cracks in the concrete near the anchors. | |

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

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| Seismic Walkdown Checklist (SWC) SWEL1- 081 | Status: Y⊠ N⊡ U⊡ | | | |
|---|------------------|--|--|--|
| Equipment ID No. C539A Equip. Class 20 - Instrumentation and Control Panels | | | | |
| Equipment Description EFIC SIGNAL CONDITIONING CABINET | | | | |
| 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.) This item is not part of the 50%. However, visible anchorage is consistent with CALC-94-SQ-1001-20, pages 235-246. | | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NO UO | | | |
| All visible anchorage was free of potentially adverse seismic conditions. | | | | |
| Interaction Effects | | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact by nearby equipment and structures. | YX N U 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 are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect. | | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | | | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX N U | | | |

adverse seismic interaction effects.

Sheet 2 of 5

| Sheet 3 of 5 |
|--|
| Status: YX N U |
| Equipment ID No. <u>C539A</u> Equip. Class <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description EFIC SIGNAL CONDITIONING CABINET |
| Other Adverse Conditions |
| 11. Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment? |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. |
| Comments (Additional pages may be added as necessary) |

| Evaluated by: Eric Dilbone Eric Dec | _ Date: | 10/10/2012 |
|-------------------------------------|---------|------------|
| Daniel Parker Dalk R | _ | 10/10/2012 |

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Sheet 4 of 5

Status: YX N U Seismic Walkdown Checklist (SWC) _____ SWEL1- 081 Equipment ID No. <u>C539A</u> Equip. Class <u>20 - Instrumentation and Control Panels</u> Equipment Description EFIC SIGNAL CONDITIONING CABINET **Photographs** 054074 Note: General view of the front of C539A. Note: View of the inside of the front of C539A.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-081</u>

Equipment ID No. <u>C539A</u> Equip. Class <u>20 - Instrumentation and Control Panels</u>

Equipment Description EFIC SIGNAL CONDITIONING CABINET



Note: View of bottom of C539A from the rear.



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| Sheet 1 of 5 | |
|---|---|
| Seismic Walkdown Checklist (SWC) SWEI 1-082 | Status: Y N U |
| Equipment ID No. N/A Equip. Class ¹ N/A | |
| Equipment Description NOT USED | |
| Location: Bldg. N/A Floor El. N/A Room, Area N/A | |
| Manufacturer, Model, Etc. (optional but recommended) | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting | an item of equipment on the the results of judgments and gother comments. |
| Anchorage | |
| 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? | |
| 3. Is the anchorage free of 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? | |
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¹ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 2 of 5 | |
|---|---------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-082</u> | Status: Y N U |
| Equipment ID No. <u>N/A</u> Equip. Class <u>N/A</u> | |
| Equipment Description <u>NOT USED</u> | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Y N U N/A |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | |
| Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? | |
| 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? | |
| 10. Based on the above seismic interaction evaluations, is equipment free | |

of potentially adverse seismic interaction effects?

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| | | Pa | Rev. 0 age 417 of 560 |
| Sheet 3 of 5 | | Status: Y N | u m |
| Seismic Walkdown Checklist (SWC) <u>SWEL</u> | 1-082 | | |
| Equipment ID No. <u>N/A</u> Equip. C | lass_ <u>N/A</u> | | |
| Equipment Description <u>NOT USED</u> | | | |
| Other Adverse Conditions | | | |
| 11. Have you looked for and found no other seise adversely affect the safety functions of the ed | nic conditions that could uipment? | | |
| <u>Comments</u> (Additional pages may be added as nec | essary) | | |
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| Evaluated by: | | Date: | |
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| Seismic Walkdown | Checklist (SWC) | SWEL1-082 |
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Status: Y N U

Equipment ID No. N/A _____ Equip. Class_ <u>N/A</u>

Equipment Description NOT USED

| Photographs | |
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| Sheet | 5 | of | 5 |
|-------|---|----|---|
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| Seismic Walkdown Checklist (SWC) <u>SWEL1-082</u> | | Status: Y N U | |
|---|------------------------------|---------------|--|
| Equipment ID No. <u>N/A</u> | Equip. Class_ <i>N/A</i> | | |
| Equipment Description NOT USED | | | |
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| Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 |
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| Page 420 of 560 Sheet 1 of 5 |
| Status: Y NU |
| Equipment ID No. <u>N/A</u> Equip. Class ¹ <u>N/A</u> |
| Equipment Description NOT USED |
| Location: Bldg. <u>N/A</u> Floor El. <u>N/A</u> Room, Area <u>N/A</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 1. Is the anchorage configuration verification required (i.e., is the item one Y N N of the 50% of SWEL items requiring such verification)? |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A |
| 3. Is the anchorage free of corrosion that is more than mild surface Y N U N/A oxidation? |
| Is the anchorage free of visible cracks in the concrete near the Y N U N/A NA Y N U N/A |

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

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| Sheet 2 of 5 | |
|---|---------------|
| | Status: Y N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-083</u> | |
| Equipment ID No. <u>N/A</u> Equip. Class <u>N/A</u> | |
| Equipment Description <u>NOT USED</u> | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Y N U N/A |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | |
| 9. Do attached lines have adequate flexibility to avoid damage? | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |

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|---|---|
| Sheet 3 of 5 | C C |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-083</u> | Status: Y N U |
| Equipment ID No. <u>N/A</u> Equip. Class <u>N/A</u> | |
| Other Adverse Conditions | 1 |
| 11. Have you looked for and found no other seismic conditions that adversely affect the safety functions of the equipment? | at could Y N U |
| | |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: | Date: |
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| Sheet 4 of 5 | | | |
| Saismia Walkdown Chaoklist (SWC) | SWEL10 | Status: Y N U | |
| Seisinic Walkdown Checklist (SWC) | SVVEL 1-0 | <u></u> | |
| Equipment ID No. <u>N/A</u> | Equip. Class | ss_N/A | |
| Equipment Description <u>NOT USED</u> | | | |
| Photographs | | | |
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| Seismic Walkdown Checklist (SWC) _ | SWEL1-083 | us: Y N N |
|------------------------------------|--------------------------|-----------|
| Equipment ID No. <u>N/A</u> | Equip. Class_ <i>N/A</i> | |
| Equipment Description NOT USED | | |
| | | |
| | | |
| Note: | Note: | |

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| Status: YX NU U | | |
|--|--|--|
| Equipment ID No. <u>PI-2811A</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> | | |
| Equipment Description EFWP P-7A DISCH PRESS | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>38</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 | | |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? Verification is required for this item. There are four anchor bolts in the | | |
| item, and thus, this item is part of the 50%. | | |
| Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ Anchorage in the item appears to be free from the conditions stated above. | | |
| 3. Is the anchorage free of corrosion that is more than mild surface Y N U N/A oxidation? | | |
| There was no sign of corrosion found anywhere in the item. | | |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? No visible cracks have been found | | |

Sheet 1 of 5

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

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|---|--|
| Sheet 2 of 5 | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-084</u> | Status: Y⊠ N⊡ U⊡ |
| Equipment ID.No. <u>PI-2811A</u> Equip. Class <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description EFWP P-7A DISCH PRESS | |
| 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 matches with the description specified in CALC-94-SQ-1001-20, pages 1048 to 1051. | Y⊠ N□ U□ N/A□ |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YN NU |
| No potentially adverse seismic conditions have been found. | |
| Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? All soft targets appear to be free from any impact by nearby equipment and structures. | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead equipment is properly placed. Therefore, it is very unlikely that they would collapse onto this item. | Y⊠ N□ U□ N/A□ |
| 9. Do attached lines have adequate flexibility to avoid damage? All attached lines appear to have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YN N U |

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Because all the mass is found near the anchor, it is very unlikely that it will seismically interact with other equipment.

| Status: YX N U |
|--|
| Equipment ID No. <u>PI-2811A</u> Equip. Class <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description EFWP P-7A DISCH PRESS |
| Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? No other seismic conditions were found in the area to affect the equipment's safety functions. |
| <u>Comments</u> (Additional pages may be added as necessary) |
| Component is found to be in adequate conditions with respect to anchorage, soft targets, overhead |

Sheet 3 of 5

Component is found to be in adequate conditions with respect to anchorage, soft targets, overhead equipment, flexibility in attached lines, and seismic interaction. No severe issues have been found to affect the component's integrity.

| Evaluated by: Daniel Parker Oml R R | Date: | 10/8/2012 |
|-------------------------------------|-------|-----------|
| Michael E. Perez | | 10/8/2012 |

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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-084

Equipment ID No. <u>PI-2811A</u> Equip. Class <u>20 - Instrumentation and Control Panels</u>

Equipment Description EFWP P-7A DISCH PRESS

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-084</u>

Equipment ID No. PI-2811A Equip. Class 20 - Instrumentation and Control Panels

Equipment Description EFWP P-7A DISCH PRESS



| Engineering Report No. CALC-ANO1-CS-12-0000 Attachment Rev. |
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| Page 430 of 56 Sheet 1 of 5 |
| Status: YX N U |
| Equipment ID No. <u>C88</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 1 |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? |
| Not part of the 50% anchorage configuration verification. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N UNA |
| All anchorage is visible, and is free of bent, broken, missing and loose hardware. |
| 3. Is the anchorage free of corrosion that is more than mild surface YX N UN/A |
| There was no observable corrosion, or even mild surface oxidation on the anchorage. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y∑ N□ U□ N/A□ anchors? |
| The anchorage is free of visible cracks in the concrete near the anchors. |

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

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| | Status: Y🛛 N🗌 U |
|--|--------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-085</u> | |
| Equipment ID No. <u>C88</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 1 | |
| 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 documentation. The anchorage is in accordance with the description in CALC-94-SQ- 1001-20, page 299. Additionally, the configuration is consistent with Drawing C-264, Detail 4. | YX N U N/A |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that are susceptible to impact by nearby equipment or structures. All soft targets are contained within the cabinet, and the cabinet is latched closed. | 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? None of the overhead equipment, ceiling tiles or lighting are likely to collapse onto the equipment. The masonry block walls in the room are seismically gualified. | Y⊠ N∏ U∏ N/A∏ |
| 9. Do attached lines have adequate flexibility to avoid damage? 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? | YX NI UI |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX N U[| | |
|--|---|--|
| Equipment ID No. <u>C88</u> Equip. Class3_20 - Instrumentation and Control Panels | | |
| Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 1 | _ | |
| Other Adverse Conditions | | |
| 11. Have you looked for and found no other seismic conditions that could Y N U U adversely affect the safety functions of the equipment? | | |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. It was observed that neighboring cabinets were appropriately bolted together to avoid interaction effects. | | |
| Comments (Additional pages may be added as necessary) | | |

Sheet 3 of 5

| Evaluated by: Roy Berryman | Date: | 10/4/2012 |
|----------------------------|-------|-----------|
| Eric Dilbone Eric Dec | | 10/4/2012 |
| | | |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 433 of 560 Sheet 4 of 5 Status: YX N U Seismic Walkdown Checklist (SWC) __SWEL1-085_ Equipment ID No. <u>C88</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u> Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 1 Photographs **C88** 881 SYSTEM **Expansion anchors** Note: View inside the bottom of the front of Note: Equipment ID tag identifying the cabinet. the cabinet with the door open. Two of the four expansion anchors are visible.

⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1-085____

Equipment ID No. <u>C88</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 1



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. (|
|--|
| Page 435 of 560 Sheet 1 of 5 |
| Status: YX NI U |
| Equipment ID No. <u>C89</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description ESAS ANALOG SUBSYSTEM No. 2 |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? |
| This item is part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ All anchorage is visible, and is free of bent, broken, missing and loose |
| hardware. |
| 3. Is the anchorage free of corrosion that is more than mild surface YX N UNA |
| There was no observable corrosion, or even mild surface oxidation on the anchorage. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? |
| The anchorage is free of visible cracks in the concrete near the anchors. |

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

| Engineerin | g Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 436 of 560 |
|--|---|
| Sheet 2 of 5 | 1 age 450 01 500 |
| | Status: VX NI III |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-086</u> | |
| Equipment ID No. <u>C89</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description ESAS ANALOG SUBSYSTEM No. 2 | |
| 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.) | YX NI UI N/AI |
| The anchorage configuration is consistent with plant documentation. The anchorage is in accordance with the description in CALC-94-SQ- 1001-20, page 303. Additionally, the configuration is consistent with Drawing C-264, Detail 4. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? | YX N UN N/A |
| There are no soft targets that are susceptible to impact by nearby equipment or structures. All soft targets are contained within the cabinet, and the cabinet is latched closed. | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | |
| None of the overhead equipment, ceiling tiles or lighting are likely to collapse onto the equipment. The masonry block walls in the room are seismically qualified. | |
| 9. Do attached lines have adequate flexibility to avoid damage? | |
| Attached lines have adequate flexibility to avoid damage. | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | |

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² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX N U |
|--|
| Equipment ID No. <u>C89</u> Equip. Class3 <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description ESAS ANALOG SUBSYSTEM No. 2 |
| Other Adverse Conditions 11. Have you looked for and found no other seismic conditions that could YX N□ U□ adversely affect the safety functions of the equipment? |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. It was observed that neighboring cabinets were appropriately bolted together to avoid interaction effects. |
| Comments (Additional pages may be added as necessary) |

Sheet 3 of 5

| Evaluated by: Roy Berryman | Date: | 10/4/2012 |
|----------------------------|-------|------------------|
| | | |
| Eric Dilbone Eric Dece | | <u>10/4/2012</u> |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| | Status: Y🛛 N🗌 U |
|---|--|
| Seismic Walkdown Checklist (SWC) _ | SWEL1-086 |
| Equipment ID No. <u>C89</u> | Equip. Class4_20 - Instrumentation and Control Panels |
| Equipment Description ESAS ANALOG SL | IBSYSTEM No. 2 |
| Photographs | |
| Bailey Bailey Bailey Bailey Baily | |
| Note: Equipment ID tag identifying the cabinet. | Note: View inside the bottom of the front of the cabinet. |

⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) ____SWEL1-086

Equipment ID No. <u>C89</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description ESAS ANALOG SUBSYSTEM No. 2



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.
| Status: YX NI U | | | |
|--|--|--|--|
| Equipment ID No. <u>C90</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> | | | |
| Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 3 | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 | | | |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? This item is part of the 50%. | | | |
| Is the anchorage free of bent, broken, missing or loose hardware? Y N□ U□ N/A□ All anchorage is visible, and is free of bent, broken, missing and loose hardware. | | | |
| 3. Is the anchorage free of corrosion that is more than mild surface Y N U N/A voidation? | | | |
| There was no observable corrosion, or even mild surface oxidation on the anchorage. | | | |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? | | | |
| The anchorage is free of visible cracks in the concrete near the anchors. | | | |

Sheet 1 of 5

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

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| | Status: Y🛛 N🗌 U🔲 |
|---|--------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-087</u> | |
| Equipment ID No. <u>C90</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 3 | |
| 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 documentation. The anchorage is in accordance with the description in CALC-94-SQ- 1001-20, page 307. Additionally, the configuration is consistent with Drawing C-264, Detail 4. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that are susceptible to impact by nearby equipment or structures. All soft targets are contained within the cabinet, and the cabinet is latched closed. | 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? None of the overhead equipment, ceiling tiles or lighting are likely to collapse onto the equipment. The masonry block walls in the room are seismically gualified. | Y⊠ N∏ U∏ N/A∏ |
| 9. Do attached lines have adequate flexibility to avoid damage? 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? | YX NI UI |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-087</u> | Status: Y🛛 N 🗍 U 🗌 |
|--|--------------------|
| Equipment ID No. <u>C90</u> Equip. Class <u>3</u> 20 - Instrumentation | and Control Panels |
| Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 3 | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. It was observed that neighboring cabinets were appropriately bolted together to avoid interaction effects. | |
| Comments (Additional pages may be added as necessary) | |

Sheet 3 of 5

| Evaluated by: Roy Berryman | Date: | 10/4/2012 |
|----------------------------|-------|-----------|
| | | |
| Eric Dilbone Eric Dec | | 10/4/2012 |
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| ³ Enter the equipment class <u>name</u> | from Appendix B: | Classes of Equipment. |
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|--|------------------|-----------------------|

Sheet 4 of 5



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-087</u>

Equipment ID No. <u>C90</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description ESAS CABINET ANALOG SUBSYSTEM No. 3



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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|--|---|--|
| Sheet 1 of 4 | | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-088</u> | Status: Y⊠ N⊡ U⊡ | |
| Equipment ID No. <u>PWR-2406</u> Equip. Class ¹ <u>20 - Instrumentation</u> | and Control Panels | |
| Equipment Description <u>REACTOR BLDG SPRAY ENG SAFEG'D POWER SU</u> | PPLY | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 | | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. | Y NX | |
| | | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Item is mounted in a cabinet. No adverse hardware conditions were observed. | Y⊠ N∏ U∏ N/A∏ | |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Item is mounted in a cabinet. No oxidation was observed | Y⊠ N□ U□ N/A□ | |
| | | |

anchors? Item is mounted in a cabinet. No cracks in concrete were observed

4. Is the anchorage free of visible cracks in the concrete near the

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

| Engineering | g Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 446 of 560 |
|---|---|
| Sheet 2 of 4 | 1 age 440 01 500 |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-088</u> | Status: Y⊠ N∏ U∏ |
| Equipment ID No. <u>PWR-2406</u> Equip. Class <u>2 20 - Instrumentation</u> | and Control Panels |
| Equipment Description REACTOR BLDG SPRAY ENG SAFEG'D POWER SU | PPLY |
| 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.) This item is not part of the 50%. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted by nearby equipment or structures. | YX N U U N/A |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | |
| Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | |
| 9. Do attached lines have adequate flexibility to avoid damage? | |
| There are no visible attached lines, since the power supply is rack- mounted in a cabinet that can only be opened from the front without disassembling the cabinet. | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI |
| Based on the above evaluation, the power supply is free of potentially adverse seismic interaciton effects. | |

 $^{^{\}rm 2}$ Enter the equipment class \underline{name} from Appendix B: Classes of Equipment.

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|---|--|-------------------------|---|
| Sheet 3 of 4 | | | |
| Seismic Walkdown Checklist (SWC) | SWEL1-088 | Status: Y |] N UU |
| Equipment ID No. PWR-2406 | _ Equip. Class <u>3_20 - Instrumentation</u> | and Control Pane | als |
| Equipment Description <u>REACTOR BLDG</u> | SPRAY ENG SAFEG'D POWER SU | PPLY | |
| Other Adverse Conditions | | | |
| 11. Have you looked for and found no or adversely affect the safety function It was looked for, and no other seis affect the safety functions were fou | other seismic conditions that could s of the equipment? mic conditions that could adversely nd. | Y⊠ N∏ U∏ | |
| Comments (Additional pages may be add | ed as necessary) | | |
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| | | | |
| | | | |
| Evaluated by: Roy Berryman | | _ Date: <u>10/4/201</u> | 12 |
| Eric Dilbone Erin De | | <u>10/4/20</u> | 12 |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-088

Equipment ID No. <u>PWR-2406</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description REACTOR BLDG SPRAY ENG SAFEG'D POWER SUPPLY

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 449 of 560 Sheet 1 of 5 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1-089 Equipment ID No. C14 Equip. Class¹ 20 - Instrumentation and Control Panels Equipment Description VERTICAL BOARD, PRIMARY COOLANT Location: Bldg. RAB Floor El. 386 Room, Area 129 Manufacturer, Model, Etc. (optional but recommended) Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. Anchorage 1. Is the anchorage configuration verification required (i.e., is the item one $Y \square N \boxtimes$ of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. 2. Is the anchorage free of bent, broken, missing or loose hardware? There were no missing bolts or welds. 3. Is the anchorage free of corrosion that is more than mild surface oxidation? There were no signs of oxidation on hardware. 4. Is the anchorage free of visible cracks in the concrete near the anchors? The concrete was free of cracks near anchors.

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

| Engineering | g Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 450 of 560 |
|--|---|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-089</u> | Status: Y⊠ N⊡ U⊡ |
| Equipment ID No. <u>C14</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description VERTICAL BOARD, PRIMARY COOLANT | |
| 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 |
| verification, but one of the anchors was not visible due to cables on the ground. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Based on the above anchorage evaluation, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There were no soft targets to be impacted by equipment in the area. | 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□ |
| Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | |
| 9. Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NO UO |
| based on the above evaluation, the cabinet is nee of potentially | |

adverse seismic interaciton effects.

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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|--|------------------------|
| | Status: Y🛛 N 🗌 U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-089</u> | |
| Equipment ID No. <u>C14</u> Equip. Class <u>3</u> 20 - Instrumentation | and Control Panels |
| Equipment Description VERTICAL BOARD, PRIMARY COOLANT | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI |
| affect the safety functions were found. | |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: Roy Berryman | Date: <u>10/4/2012</u> |
| | |
| Eric Dilbone the View | 10/4/2012 |
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³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

obscured the view of the last anchor bolt.

Sheet 4 of 5

 Status: Y⊠ N□ U□

 Seismic Walkdown Checklist (SWC) <u>SWEL1-089</u>

 Equipment ID No. <u>C14</u>
 Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

 Equipment Description <u>VERTICAL BOARD, PRIMARY COOLANT</u>

 Photographs

 The control of the control panels

 Note: Cabinet C14 from the front.

Note: Cabinet C14 from the front.

Status: Y⊠ N□ U□

⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-089

Equipment ID No. <u>C14</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description VERTICAL BOARD, PRIMARY COOLANT



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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|--|---|
| Sheet 1 of 5 | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-090</u> | Status: Y⊠ N⊡ U⊡ |
| Equipment ID No. <u>C42</u> Equip. Class ¹ <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description <u>NI & RPS SYSTEM B</u> | <u> </u> |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</u> | · · · · · · · · · · · · · · · · · · · |
| Manufacturer, Model, Etc. (optional but recommended) | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Seismic Walkdown o 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 | f an item of equipment on the I the results of judgments and Ig other comments. |
| Anchorage | |
| 1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? | Y NX |
| Anchorage configuration verification is not possible because only two of the four documented anchors are visible due to fireboard covering. | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? All hardware visible was present, tight and in good condition. | |
| 3. Is the anchorage free of corrosion that is more than mild surface | |
| Mild surface oxidation was observed on some of the anchorage in the bottom of the cabinet. There is no adverse conditions as a result | |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | |
| No cracks in concrete were observed. | |

Engineering Report No. CALC-ANO1-CS-12-00002

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

| | Engineering | g Report No. CALC-AN | O1-CS-12-00002 Attachment C Rev. 0 |
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| Sheet 2 of 5 | | | rage 455 01 500 |
| Seismic Walkdown Checklist (SWC | ;)SWEL1-090 | Status: Y🛛 N[| _ U[] |
| Equipment ID No. <u>C42</u> | _ Equip. Class ² 20 - Instrumentation | and Control Panels | |
| Equipment Description <u>NI & RPS SYST</u> | EMB | | |
| 5. Is the anchorage configuration co (Note: This question only applies an anchorage configuration verific <i>This cabinet was not part of the 5</i> | nsistent with plant documentation? If the item is one of the 50% for which ation is required.) 0%, so this is not applicable. | Y N U N/A | |
| Based on the above anchorage endoted potentially adverse seismic condition | valuations, is the anchorage free of ions? | YX N U | |
| Based on the above anchorage e potentially adverse seismic condit | valuations, the anchorage is free of ions. | | |
| Interaction Effects | | | |
| 7. Are soft targets free from impact to Soft targets are free from impact to | by nearby equipment or structures? by nearby equipment and structures. | Y⊠ N∏ U∏ N/A | |
| Are overhead equipment, distribu and masonry block walls not likely | tion systems, ceiling tiles and lighting, / to collapse onto the equipment? | Y⊠ N∏ U∏ N/A | |
| The masonry block wall in the roc tiles and lighting in the room are i collapse onto the cabinet. | m is seismically qualified. The ceiling n good condition, and are not likely to | | |
| 9. Do attached lines have adequate Attached lines have adequate flex | flexibility to avoid damage? <i>«ibility</i> . | Y⊠ N∏ U∏ N/A | |
| 10. Based on the above seismic inter of potentially adverse seismic inte | action evaluations, is equipment free eraction effects? | Y⊠ N□ U□ | |

Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 |
|--|
| Status: YX N U |
| Equipment ID No. <u>C42</u> Equip. Class3 <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description <u>NI & RPS SYSTEM B</u> |
| Other Adverse Conditions |
| 11. Have you looked for and found no other seismic conditions that could YX N□ U□ adversely affect the safety functions of the equipment? |
| It was looked for, and no other seismic conditions that could adversely affect the safety funcitons of the equipment were found. |
| Comments (Additional pages may be added as necessary) |
| |
| |
| |

| Evaluated by: Roy Berryman | Date: | 10/4/2012 |
|----------------------------|---------|-----------|
| Evaluated by Rey Denyman | _ Date. | 10/4/2012 |
| Eric Dilbone | - | 10/4/2012 |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-090</u>

Equipment ID No. <u>C42</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description NI & RPS SYSTEM B

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-090

Equipment ID No. <u>C42</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description <u>NI & RPS SYSTEM B</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 459 of 560 Sheet 1 of 5 Status: YX N U Seismic Walkdown Checklist (SWC) SWEL1-091 Equip. Class¹ 20 - Instrumentation and Control Panels Equipment ID No. C44 Equipment Description NI & RPS SYSTEM D Location: Bldg. RAB Floor El. 386 Room, Area 129 Manufacturer, Model, Etc. (optional but recommended) Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments. Anchorage 1. Is the anchorage configuration verification required (i.e., is the item one $Y \square N \boxtimes$ of the 50% of SWEL items requiring such verification)? Anchorage configuration verification is not possible because only two of the four documented anchors are visible due to fireboard covering. 2. Is the anchorage free of bent, broken, missing or loose hardware? All hardware visible was present, tight and in good condition. 3. Is the anchorage free of corrosion that is more than mild surface YX N UNA oxidation? Mild surface oxidation was observed on some of the anchorage in the bottom of the cabinet. 4. Is the anchorage free of visible cracks in the concrete near the anchors? No cracks in concrete were observed.

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

| Engine | eering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 460 of 560 |
|--|--|
| Sheet 2 of 5 | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-091</u> | Status: Y⊠ N∏ U∏ |
| Equipment ID No. <u>C44</u> Equip. Class ² <u>20 - Instrumenta</u> | tion and Control Panels |
| Equipment Description <u>NI & RPS SYSTEM D</u> | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for wh an anchorage configuration verification is required.) | Y N UNA⊠ nich |
| This cabinet was not part of the 50%, so this is not applicable. | |
| 6. Based on the above anchorage evaluations, is the anchorage free o potentially adverse seismic conditions? | f Y⊠ N∏ U∏ |
| Based on the above anchorage evaluations, the anchorage is free o potentially adverse seismic conditions. | f |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures' Soft targets are free from impact by nearby equipment and structure | ? Y⊠ N∏ U∏ N/A∏ es. |
| 8. Are overhead equipment, distribution systems, ceiling tiles and light and masonry block walls not likely to collapse onto the equipment? | ing, YX N U UN/A |
| The masonry block wall in the room is seismically qualified. The cein tiles and lighting in the room are in good condition, and are not likely collapse onto the cabinet. | lling / to |
| Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | |
| | |
| 10. Based on the above seismic interaction evaluations, is equipment fr of potentially adverse seismic interaction effects? | |
| Based on the above seismic interaction evaluations, the equipment free of potentially adverse seismic interaction effects. | is |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 | |
|---|--|
| Colomia Mallalaum Chaolaliat (CMC) - CMCI 4 004 | Status: Y⊠ N⊟ U⊟ |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-091</u> | |
| Equipment ID No. <u>C44</u> Equip. Class ³ <u>20 - Instrumentation an</u> | d Control Panels |
| Equipment Description <u>NI & RPS SYSTEM D</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX N U |
| It was looked for, and no other seismic conditions that could adversely affect the safety funcitons of the equipment were found. | |
| Comments (Additional pages may be added as necessary) | |
| It was noted that a bolt on top of the cabinet was not screwed in all the way cabinet anchorage, and was tightened at the time of inspection by Oper image below. | Y. This bolt is not part of the rations personnel. See |
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| | |
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| Kay Baya | |

| Evaluated by: Roy Berryman | Date: | 10/4/2012 |
|----------------------------|-------|------------------|
| Eric Dilbone Eric Dec | - | <u>10/4/2012</u> |

| ³ Enter the equipment class | name from Appendix | B: Classes of Equipment. |
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|--|--------------------|--------------------------|

Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-091</u>

Equipment ID No. <u>C44</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description <u>NI & RPS SYSTEM D</u>

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-091</u>

Equipment ID No. <u>C44</u> Equip. Class⁵ <u>20 - Instrumentation and Control Panels</u>

Equipment Description NI & RPS SYSTEM D



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Engineering Report No. CALC-ANO1-CS-12-0000 Attachment Rev. |
|--|
| Sheet 1 of 5 |
| Status: YX N U |
| Equipment ID No. <u>C26</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description <u>VERT BD – SUP ENGR SFGO</u> |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N∑ of the 50% of SWEL items requiring such verification)? |
| Not part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N UN N/A |
| The welds on the underside of the front of the cabinet are all in good condition, and are consistent with plant documentation. The back cabinet doors were opened, but the rear welds were not visible without crossing the plane of the cabinet. |
| Is the anchorage free of corrosion that is more than mild surface Y N□ U□ N/A□ oxidation? |
| There were no signs of any oxidation on the visible anchorage. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y∑ N□ U□ N/A□ anchors? |
| There were no visible cracks in the concrete near the vicinity of the cabinet. |

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

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| Seismic Walkdown Checklist (SWC) SWEI 1-092 | Status: Y⊠ N⊡ U⊡ |
|--|--------------------|
| Equipment ID No. <u>C26</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description VERT BD – SUP ENGR SFGO | |
| 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.) All visible anchorage is consistent with plant documentation. However, not all anchorage could be verified without extensive cabinet | |
| disassembly.6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | |
| Based on the above anchorage evaluations, all visible anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could potentially be impacted 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? Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | Y⊠ N□ U□ N/A□ |
| Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |
| Based on the above evaluation, the cabinet is free of potentially adverse seismic interaciton effects. | |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Stat Seismic Walkdown Checklist (SWC) <u>SWEL1-092</u> | us: YX N U |
|--|---|
| Equipment ID No. <u>C26</u> Equip. Class3 <u>20 - Instrumentation and Cont</u> | trol Panels |
| Equipment Description VERT BD – SUP ENGR SFGO | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could Y⊠ N adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| <u>Comments (</u> Additional pages may be added as necessary) | |
| Additionally, it was noted that there were four emergency respiratory protective ed were stacked upon one another and were not secured. The cases were deem the cabinet not to present an interaction effect. | วุuipment cases that ied far enough from |

| Evaluated by: Roy Berryman | _ Date: | 10/4/2012 |
|----------------------------|---------|-----------|
| Eric Dilbone Eric Decen | _ | 10/4/2012 |
| | - | |

Sheet 3 of 5

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 $^{^3}$ Enter the equipment class \underline{name} from Appendix B: Classes of Equipment.

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Sheet 4 of 5

Photographs

Status: YX N U Seismic Walkdown Checklist (SWC) <u>SWEL1-092</u> Equipment ID No. C26 Equip. Class4 20 - Instrumentation and Control Panels Equipment Description <u>VERT BD – SUP ENGR SFGO</u>



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-0</u> | Status: Y⊠ N∏ U∏ 92 |
|---|---|
| Equipment ID No. <u>C26</u> Equip. Class | 5_20 - Instrumentation and Control Panels |
| Equipment Description <u>VERT BD – SUP ENGR SFGO</u> | |
| | |
| Note: Shown above are the louvers on the rear doors of cabinet C-26. No anchorage is visible from the rear of the cabinet. | Note: |
| | |

⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Rev. 0 |
| Page 469 of 560 |
| Status: YX NUU |
| Equipment ID No. <u>PY-1042A</u> Equip. Class ¹ 20 - Instrumentation and Control Panels |
| Equipment Description <u>RCS PRESSURE</u> |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ This component is located in a nest in cabinet C539A. No bent, broken, missing or loose hardware was observed. |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? No corrosion was observed |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? No cracks in concrete were observed near cabinet |

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

| E | ingineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 |
|---|--|
| Sheet 2 of 5 | Page 470 01 300 |
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 093</u> | Status: Y⊠ N⊡ U⊡ |
| Equipment ID No. <u>PY-1042A</u> Equip. Class ² <u>20 - Instrum</u> | nentation and Control Panels |
| Equipment Description <u>RCS PRESSURE</u> | |
| 5. 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.) <i>This item is not part of the 50%.</i> | ition? Y N U N/A⊠ or which |
| Based on the above anchorage evaluations, is the anchorage f potentially adverse seismic conditions? Based on the above anchorage evaluations, the anchorage is f potentially adverse seismic conditions. | ree of YX NI U |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or struct Soft targets are free from impact since they are in a cabinet tha latched closed. | ures? Y⊠ N⊡ U⊡ N/A⊡ ht is |
| 8. Are overhead equipment, distribution systems, ceiling tiles and and masonry block walls not likely to collapse onto the equipment <i>This does not apply since the component is located inside of a</i> | lighting, Y☐ N☐ U☐ N/A⊠ ent? <i>cabinet.</i> |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | |
| 10. Based on the above seismic interaction evaluations, is equipment of potentially adverse seismic interaction effects? Based on the above seismic interaction evaluations, the equipment of potentially adverse seismic interaction effects. | ent free Y⊠ N⊡ U⊡ |

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² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Sheet 3 of 5 | |
|--|-------------------------|
| | Status: Y⊠ N⊟ U⊟ |
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 093</u> | |
| Equipment ID No. <u>PY-1042A</u> Equip. Class <u>3</u> 20 - Instrumentation | and Control Panels |
| Equipment Description <u>RCS PRESSURE</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| <u>Comments (</u> Additional pages may be added as necessary) | |
| Evaluated by: Eric Dilbone Eric Dece | Date: <u>10/10/2012</u> |

Daniel Parker Sal R P

10/10/2012

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-093</u>

Equipment ID No. <u>PY-1042A</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description <u>RCS PRESSURE</u>

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1- 093

Equipment ID No. PY-1042A Equip. Class⁵ 20 - Instrumentation and Control Panels

Equipment Description RCS PRESSURE



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Engineering Report No. CALC-ANO1-CS-12-0 Attachme R Page 474 of Sheet 1 of 5 |
|--|
| Seismic Walkdown Checklist (SWC)SWEL1-094 |
| Equipment ID No. LY-1411A Equip. Class ¹ _20 – Instruments and Control Panels |
| Equipment Description BWST LEVEL #1 |
| Location: Bldg. <u>RAB</u> Floor El. <u>374</u> Room, Area <u>96</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. |
| |

| 2. Is the anchorage free of bent, broken, missing or loose hardware? | |
|---|--|
| The bolts holding the component into the cabinet are free of all of the above conditions. | |

No cracks in concrete were observed near anchorage of cabinet.

anchors?

| 3. Is the oxida | anchorage free of corrosion that is more than mild surface tion? | YX NI UI N/AI |
|-----------------|---|---------------|
| The t | olts holding the component into the cabinet are free of corrosion. | |
| 4. Is the | anchorage free of visible cracks in the concrete near the | |

| ¹ Enter the equipment class <u>nam</u> | e from Appendix B: | Classes of Equipment. |
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| Engineeri | ing Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 |
|--|--|
| Sheet 2 of 5 | Page 475 of 560 |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-094</u> | Status: YX N U |
| Equipment ID No. LY-1411A Equip. Class ² 20 – Instruments a | nd Control Panels |
| Equipment Description BWST LEVEL #1 | |
| 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.) Item is not part of the 50%. | Y□ N□ U□ N/A⊠ 1 |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Component mounted inside cabinet C543. Located in "grey" nest box 3. All mounting bolts for component and support box were identified and adequate. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact since the component is located inside of a cabinet. | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting and masonry block walls not likely to collapse onto the equipment? | I, Y⊠ N∏ U∏ N/A∏ |
| The component is located in cabinet C543. It is protected from any intrusion from adjacent equipment when the door panel is in the norma closed and locked position. | al |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.
| | Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 476 of 560 |
|---|---|
| Sheet 3 of 5 | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-094</u> | Status: Y⊠ N⊡ U⊡ |
| Equipment ID No. <u>LY-1411A</u> Equip. Class <u>3</u> 20 – Inst | ruments and Control Panels |
| Equipment Description BWST LEVEL #1 | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions t adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could affect the safety functions of the equipment were found. | hat could Y⊠ N⊡ U⊡ adversely |
| <u>Comments (Additional pages may be added as necessary)</u> | |
| | Date: <u>10/10/2012</u> |

Eric Dilbone Eric Dece

<u>10/10/2012</u>

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-094

Equipment ID No. LY-1411A Equip. Class⁴ 20 - Instruments and Control Panels

Equipment Description BWST LEVEL #1

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1-094

Equipment ID No. LY-1411A Equip. Class⁵ 20 - Instruments and Control Panels

Equipment Description <u>BWST LEVEL #1</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| | |

| Seismic Walkdown Checklist (SWC) <u>SWEL1- 095</u> | Status: Y⊠ N∏ U∏ |
|---|--|
| Equipment ID No. <u>LY-4204A</u> Equip. Class <u>1_20 - Instrumentation a</u> | and Control Panels |
| Equipment Description CST T41B LEVEL REDI/V | |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</u> | · · · · · |
| Manufacturer, Model, Etc. (optional but recommended) | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting | an item of equipment on the the results of judgments and g other comments. |
| Anchorage | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. | Y N |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? No adverse hardware conditions were observed. | YX N U N/A |
| Is the anchorage free of corrosion that is more than mild surface oxidation? | |
| No corrosion observed. | |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | |
| No cracks in concrete observed | |

Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1- 095</u> | Status: Y⊠ N∏ U∏ |
|--|--------------------|
| Equipment ID No. <u>LY-4204A</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description CST T41B LEVEL REDI/V | |
| 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.) <i>This item is not part of the 50%.</i> | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact since they are in a cabinet that is latched closed. | YX N UN N/A |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? This does not apply since the component is located inside of a cabinet. | |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX N U |
| Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects. | |

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Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 | |
|--|-------------------------|
| | Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 095</u> | |
| Equipment ID No. <u>LY-4204A</u> Equip. Class <u>3</u> 20 - Instrumentation | and Control Panels |
| Equipment Description CST T41B LEVEL REDI/V | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX N U |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| Comments (Additional pages may be added as necessary) | |
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| | |
| Evaluated by: Eric Dilbone Eric Dec | Date: <u>10/10/2012</u> |
| Daniel Parker Danl R Ru | 10/10/2012 |
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³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-095

Equipment ID No. LY-4204A Equip. Class4 20 - Instrumentation and Control Panels

Equipment Description <u>CST T41B LEVEL REDI/V</u>

Photographs Note: View of equipment ID tag identifying the component. Note: Alternate view of the component.

⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

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Seismic Walkdown Checklist (SWC) SWEL1-095

Equipment ID No. LY-4204A Equip. Class⁵ 20 - Instrumentation and Control Panels

Equipment Description <u>CST T41B LEVEL REDI/V</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX NUU Seismic Walkdown Checklist (SWC) <u>SWEL1- 096</u> | | |
|--|--|--|
| Equipment ID No. <u>PY-2667-A1</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> | | |
| Equipment Description I/V CONVERTER STM GEN B PRESS | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</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 | | |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N | | |
| Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ No adverse hardware conditions were observed. | | |
| Is the anchorage free of corrosion that is more than mild surface Y N U N/A NA No corrosion observed. | | |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? No cracks in concrete observed | | |

Sheet 1 of 5

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

| | Status: Y🛛 N🗌 U🗌 |
|--|--------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 096</u> | |
| Equipment ID No. <u>PY-2667-A1</u> Equip. Class <u>20 - Instrumentation a</u> | and Control Panels |
| Equipment Description I/V CONVERTER STM GEN B PRESS | |
| 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.) <i>This item is not part of the 50%.</i> | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact since they are in a cabinet that is latched closed. | 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? <i>This does not apply since the component is located inside of a cabinet.</i> | Y□ N□ U□ N/A⊠ |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |

Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

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| | Status: Y🛛 N 🗍 U |
|--|--------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 096</u> | |
| Equipment ID No. <u>PY-2667-A1</u> Equip. Class <u>20 - Instrumentation a</u> | and Control Panels |
| Equipment Description I/V CONVERTER STM GEN B PRESS | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| | |
| <u>Comments (Auditional pages may be added as necessary)</u> | |
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Sheet 3 of 5

| Evaluated by: Eric Dilbone Eric Dec | Date: | 10/10/2012 |
|-------------------------------------|-------|------------|
| Daniel Parker Dould Rom | | 10/10/2012 |

Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-096</u>

Equipment ID No. PY-2667-A1 Equip. Class 20 - Instrumentation and Control Panels

Equipment Description I/V CONVERTER STM GEN B PRESS

Photographs



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Sheet 5 of 5

Seismic Walkdown Checklist (SWC) SWEL1-096

Status: YX N U

Equipment ID No. PY-2667-A1_____ Equip. Class_20 - Instrumentation and Control Panels

Equipment Description I/V CONVERTER STM GEN B PRESS



| Seismic Walkdown Checklist (SWC) <u>SWEL1-097</u> | Status: Y⊠ N⊡ U⊡ | |
|--|--------------------|--|
| Equipment ID No. <u>PB-2670</u> Equip. Class <u>1 20 - Instrumentation a</u> | and Control Panels | |
| Equipment Description EMERG EW TO SG A FROM P7B VLV CV-2670 | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 | | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? This item is not part of the 50%. | Y N | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? No adverse hardware conditions were observed. | Y⊠ N∏ U∏ N/A∏ | |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? <i>No corrosion observed.</i> | | |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? No cracks in concrete observed | YX NI UI N/AI | |

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Sheet 1 of 4

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

| | Status: Y🛛 N🗌 U | | |
|---|--------------------|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-097</u> | | | |
| Equipment ID No. <u>PB-2670</u> Equip. Class2 <u>20 - Instrumentation a</u> | and Control Panels | | |
| Equipment Description EMERG EW TO SG A FROM P7B VLV CV-2670 | | | |
| 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.) <i>This item is not part of the 50%.</i> | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U | | |
| The anchorage is not visible since it is mounted in the face of a panel. The cabinet could not be opened due to Control Room Operations. However, the button appears to be installed properly and there is no apparent reason why it would be adversely affected in a seismic event. | | | |
| Interaction Effects | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted 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? Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | | | |
| Do attached lines have adequate flexibility to avoid damage? There are no visible attached lines, since the button is mounted on the face of a panel. | Y⊠ N□ U□ N/A□ | | |
| Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Based on the above evaluation, the button is free of potentially adverse seismic interaciton effects. | YX N U | | |

Sheet 2 of 4

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Seismic Walkdown Checklist (SWC) SWEI 1-097 | Status: Y⊠ N□ U□ |
|--|------------------------|
| | |
| Equipment ID No. <u>PB-2670</u> Equip. Class <u>3</u> 20 - Instrumentation a | and Control Panels |
| Equipment Description EMERG EW TO SG A FROM P7B VLV CV-2670 | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX N U |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: Pay Paraman Res Baya | Data: 10/4/2012 |
| | Dale. <u>10/4/2012</u> |
| Eric Dilbone Eric Dec | 10/4/2012 |
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Sheet 3 of 4

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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 Seismic Walkdown Checklist (SWC)
 SWEL1-097

 Equipment ID No.
 PB-2670

 Equipment Description
 EMERG EW TO SG A FROM P7B VLV CV-2670

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| |
| Status: YX N_ U |
| Equipment ID No. <u>SS-1220</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description HPI ISO VV CV 1220 |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N |
| This item is not part of the 50%. |
| Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A No adverse hardware conditions were observed. |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? No corrosion observed. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? No cracks in concrete observed |

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

| | Engineerin | g Report No. CALC-ANO1-CS-12-000 Attachmen Rev Page 494 of 5 | 102 t C 7. 0 |
|--------|---|---|--------------------|
| Sheet | 2 of 4 | 0 | |
| Seism | nic Walkdown Checklist (SWC) <u>SWEL1-098</u> | Status: Y⊠ N∏ U∏ | |
| Equipr | nent ID No. <u>SS-1220</u> Equip. Class2 <u>20 - Instrumentation</u> | and Control Panels | |
| Equipr | nent Description HPLISO VV CV 1220 | | |
| 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.) Not part of the 50%. | | |
| 6. | Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI | |
| | The cabinet was opened from the back, and no adverse seismic conditions were observed. | | |
| Intera | ction Effects | | |
| 7. | Are soft targets free from impact by nearby equipment or structures? | Y⊠ N□ U□ N/A□ | |
| | There are no soft targets that could be impacted by nearby equipment or structures. | | |
| 8. | Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | | |
| | Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported. | | |
| 9. | Do attached lines have adequate flexibility to avoid damage? | | |
| | | | |
| 10. | Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NL UL | |

Based on the above evaluation, the switch is free of potentially adverse seismic interaciton effects.

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 4 | |
|---|--------------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-098</u> | Status: Y⊠ N∏ U∏ |
| Equipment ID No. <u>SS-1220</u> Equip. Class <u>3 20 - Instrumentation</u> | and Control Panels |
| Equipment Description HPI ISO VV CV 1220 | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | Y⊠ N□ U□ |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: Roy Berryman | _ Date: <u>10/4/2012</u> |
| Eric Dilbone Eric Dece | 10/4/2012 |
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³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 4 of 4

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-098</u>

Equipment ID No. <u>SS-1220</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description HPI ISO VV CV 1220

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Status: YX NU U |
|--|
| Equipment ID No. <u>TR-1139</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description RC LOOP B WR HOT LEG TEMP |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ No adverse hardware conditions were observed. |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? No corrosion observed. |
| Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? No cracks in concrete observed |

Sheet 1 of 4

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

| | Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 498 of 560 |
|--|---|
| Sheet 2 of 4 | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-099</u> | Status: YX N U |
| Equipment ID No. <u>TR-1139</u> Equip. Class ² <u>20 - Instru</u> | umentation and Control Panels |
| Equipment Description <u>RC LOOP B WR HOT LEG TEMP</u> | |
| 5. Is the anchorage configuration consistent with plant documer (Note: This question only applies if the item is one of the 50% an anchorage configuration verification is required.) Not part of the 50%. | ntation? Y N U V N/A |
| Based on the above anchorage evaluations, is the anchorage potentially adverse seismic conditions? No other adverse seismic conditions were observed. | e free of Y⊠ N□ U□ |
| Interaction Effects | |
| Are soft targets free from impact by nearby equipment or structures are no soft targets that could be impacted by nearby export structures. | nctures? Y⊠ N⊡ U⊡ N/A⊡ quipment |
| Are overhead equipment, distribution systems, ceiling tiles ar and masonry block walls not likely to collapse onto the equip | nd lighting, YX N UN/A |
| Masonry block walls in the room are seismically qualified, and with a qualification number. Ceiling tiles and lights are all in g condition, and are adequately supported. | d painted good |
| 9. Do attached lines have adequate flexibility to avoid damage? | |
| The attached lines have adequate flexibility. 10. Based on the above seismic interaction evaluations, is equipated of potentially adverse seismic interaction effects? | ment free Y⊠ N□ U□ |
| Based on the above evaluation, the temperature recorder is the potentially adverse seismic interaciton effects. | free of |

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 4 |
|--|
| Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-099</u> |
| Equipment ID No. <u>TR-1139</u> Equip. Class ³ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description RC LOOP B WR HOT LEG TEMP |
| Other Adverse Conditions |
| 11. Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment? |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. |
| <u>Comments (</u> Additional pages may be added as necessary) |

| Evaluated by: Roy Berryman | Date: | 10/4/2012 |
|----------------------------|-------|-----------|
| Eric Dilbone Eric Dec | - | 10/4/2012 |
| | - | |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Sheet 4 of 4

 Status: Y⊠ N□ U□

 Seismic Walkdown Checklist (SWC) __SWEL1-099

 Equipment ID No. <u>TR-1139</u> Equip. Class4_20 - Instrumentation and Control Panels

 Equipment Description <u>RC LOOP B WR HOT LEG TEMP</u>

 Photographs

 Image: Status in the panel containing TR-1139.

 Note: View of the panel containing TR-1139.

⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX NI U |
| Equipment ID No. <u>LIS-1421</u> Equip. Class ¹ <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description BWST LEVEL No. 2 |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N UN N/A |
| The level indicator is mounted in cabinet C18, and the hardware is visible from inside the rear of the cabinet. The anchorage is free of bent, broken and loose hardware. |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? |
| No mild surface oxidation present on anchorage. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y∑ N□ U□ N/A□ anchors? |
| The level indicator is mounted in the front face of the cabinet. No cracks in concrete around cabinet anchorage. |

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

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| Seismic Walkdown Checklist (SWC) SWEL1-100 | Status: Y⊠ N⊡ U⊡ |
|---|--------------------|
| Equipment ID No. <u>LIS-1421</u> Equip. Class ² <u>20 - Instrumentation</u> | and Control Panels |
| Equipment Description BWST LEVEL No. 2 | |
| 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.) This item is not part of the 50%. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NO UO |
| All visible anchorage was free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted by nearby equipment or structures. | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? <i>Masonry block walls in the room are seismically qualified, and painted</i> <i>with a qualification number. Ceiling tiles and lights are all in good</i> <i>condition, and are adequately supported</i> | Y⊠ N∏ U∏ N/A∏ |
| Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | YX N U N/A |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |
| Based on the above evaluation, the level indicator in the cabinet is free of potentially adverse seismic interaciton effects. | |

Sheet 2 of 5

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 5 |
|--|
| Status: Y⊠ N⊡ U⊡ |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-100</u> |
| Equipment ID No. <u>LIS-1421</u> Equip. Class3 <u>20 - Instrumentation and Control Panels</u> |
| Equipment Description BWST LEVEL No. 2 |
| Other Adverse Conditions |
| 11. Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment? |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. |
| Comments (Additional pages may be added as necessary) |

| Evaluated by: Roy Berryman | _ Date: | 10/4/2012 |
|----------------------------|---------|-----------|
| Eric Dilbone Eric Dice | | 10/4/2012 |

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Status: YX N U

Sheet 4 of 5

Seismic Walkdown Checklist (SWC) SWEL1-100

Equipment ID No. <u>LIS-1421</u> Equip. Class4 <u>20 - Instrumentation and Control Panels</u>

Equipment Description BWST LEVEL No. 2

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-100</u>

Equipment ID No. LIS-1421 Equip. Class⁵ 20 - Instrumentation and Control Panels

Equipment Description <u>BWST LEVEL No. 2</u>



⁵ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

| Status: YX N U | | | | |
|--|--|--|--|--|
| Equipment ID No. <u>T-78A</u> Equip. Class ¹ <u>21 - Tanks and Heat Exchangers</u> | | | | |
| Equipment Description EMERG. DIESEL GEN (K4A) COOLING WATER EXP TANK | | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>87</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 | | | | |
| Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)? Item is part of the 50%. | | | | |
| Is the anchorage free of bent, broken, missing or loose hardware? Y∑ N□ U□ N/A□ The bolts anchoring the tank to the EDG skid are free of bent, broken, missing and loose hardware. Additionally, the welds were all in good condition. | | | | |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? | | | | |
| The anchorage is free of corrosion and is painted blue without any chipped paint. | | | | |
| Is the anchorage free of visible cracks in the concrete near the YX N□ U□ N/A□ anchors? | | | | |
| The tank is anchored to a steel frame on the EDG skid. No cracks around EDG skid anchorage | | | | |

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Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1- 101</u> | Status: Y⊠ N∏ U∏ | | | |
|---|------------------|--|--|--|
| Equipment ID No. T-78A Equip. Class 21 - Tanks and Heat Exchangers | | | | |
| Equipment Description <u>EMERG. DIESEL GEN (K4A) COOLING WATER EXP</u> | 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.) | | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI | | | |
| All visible anchorage was free of potentially adverse seismic conditions. | | | | |
| Interaction Effects | | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted by nearby equipment or structures. | YX N UN N/A | | | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect. | Y⊠ N□ U□ N/A□ | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | | | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | | | | |

Based on the above evaluation, the level switch is free of potentially adverse seismic interaction effects.

Sheet 2 of 5

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| Seismic Walkdown Checklist (SWC) <u>SWEL1- 101</u> | Stat | tus: Y⊠ N∏ U∏ |
|--|-------------|---------------|
| Equipment ID No. <u>T-78A</u> Equip. Class <u>21 - Tanks and Heat B</u> | Exchang | ers |
| Equipment Description EMERG. DIESEL GEN (K4A) COOLING WATER EXP | <u>TANK</u> | |
| Other Adverse Conditions | | |
| Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could adversely affect the safety functions were found. | YM N | |
| Comments (Additional pages may be added as necessary) | | |
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| Evaluated by: Daniel Parker Dank R R | _ Date: | 10/11/2012 |
| Eric Dilbone Eric Decen | _ | 10/11/2012 |
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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-101

Equipment ID No. <u>T-78A</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u>

Equipment Description EMERG. DIESEL GEN (K4A) COOLING WATER EXP TANK

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-101

Equipment ID No. <u>T-78A</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u>

Equipment Description EMERG. DIESEL GEN (K4A) COOLING WATER EXP TANK



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| Soismia Walkdown Chocklist (SWC) SWEL1 102 | Status: Y⊠ N⊡ U⊡ | | |
|--|------------------|--|--|
| Seisinic Walkdown Checklist (SWC) <u>SWELT-102</u> | | | |
| Equipment ID No. <u>T-78B</u> Equip. Class <u>1_21 – Tanks and Heat</u> | Exchangers | | |
| Equipment Description EMERG. DIESEL GEN (K4B) COOLING WATER EXP. | TANK | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</u> | | | |
| Manufacturer, Model, Etc. (optional but recommended) <u>Electro-Motive</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 | | | |
| Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Item is part of the 50% configuration. | YX N | | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? The anchorage is free of bent, broken, missing and loose hardware. | Y⊠ N□ U□ N/A□ | | |
| Is the anchorage free of corrosion that is more than mild surface oxidation? The anchorage is free of corrosion. | YX N UN N/A | | |
| | | | |
| Is the anchorage free of visible cracks in the concrete near the anchors? | | | |
| Component mounted to EDG skid. No cracks around skid anchorage. | | | |

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Sheet 1 of 4

¹ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.
| Sheet | Engineerir 2 of 4 | ng Report No. CALC-ANO1-CS-12-0000 Attachment Rev. Page 512 of 56 | 12 C 0 50 |
|---------------------|--|--|--------------------|
| Seisn | nic Walkdown Checklist (SWC) <u>SWEL1-102</u> | Status: Y⊠ N⊡ U⊡ | |
| Equip | nent ID No. <u>T-78B</u> Equip. Class² <u>21 – Tanks`and Hea</u> | at Exchangers | |
| Equip | nent Description EMERG. DIESEL GEN (K4B) COOLING WATER EXI | P. TANK | |
| 5. 6. | 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.) <i>Anchorage is consistent with calculation 6600-M12AC-117-1.</i> Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Based on the above anchorage evaluations, the anchorage is free of potentially adverse aciemic conditions. | | |
| <u>Intera</u> 7. | ction Effects Are soft targets free from impact by nearby equipment or structures? The water expansion tank was mounted to the accessory end of the diesel generator. A large air-duct mounted overhead adequately supported with steel hangers. There is no other equipment overhead or nearby that could have a credible significant interaction with the tank during a seismic event. | Y⊠ N□ U□ N/A□ | |

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, YX N UNA and masonry block walls not likely to collapse onto the equipment? There is overhead duct work that is properly secured with steel hangers.

- 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility.
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

² Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Sheet 3 of 4 | |
|--|---|
| | Status: YX N U |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-102</u> | |
| Equipment ID No. <u>T-78B</u> Equip. Class <u>3</u> 21 – Tanks and Heat | Exchangers |
| Equipment Description EMERG. DIESEL GEN (K4B) COOLING WATER EXP | . TANK |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. | Y⊠N□U□ |
| <u>Comments (</u> Additional pages may be added as necessary) The cooling water expansion tank was mounted horizontally at the access generator. The tank was welded directly to support brackets on either support brackets were bolted directly to the structural frame of the directly | ssory end of the diesel r side of the tanks. The esel engine. |
| Evaluated by: Eric Dilbone Eric Dece | Date: <u>10/2/2012</u> |
| Daniel Parker Dank Kham | 10/2/2012 |

³ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-102</u>

Equipment ID No. <u>T-78B</u> Equip. Class4 <u>21 – Tanks and Heat Exchangers</u>

Equipment Description EMERG. DIESEL GEN (K4B) COOLING WATER EXP. TANK

Photographs



⁴ Enter the equipment class <u>name</u> from Appendix B: Classes of Equipment.

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| Status: YX N U | | |
|--|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-103</u> | | |
| Equipment ID No. <u>E-197A</u> Equip. Class ¹ <u>21 - Tanks and Exchangers</u> | | |
| Equipment Description A EDG LUBE OIL HEAT EXCHANGER | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>87</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 | | |
| Is the anchorage configuration verification required (i.e., is the item one Y N N N N N N N N N N N N N N N N N N | | |
| Is the anchorage free of bent, broken, missing or loose hardware? Y N□ U□ N/A□ The bolts anchoring the heat exchanger to the EDG skid are free of bent, broken, missing and loose hardware. | | |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? Some of the blue paint is cracked, but there are no signs of corrosion. | | |
| 4. Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? The heat exchanger is anchored to a steel frame on the EDG skid. No cracks in concrete around skid observed. | | |

Sheet 1 of 5

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

| | Status: Y🛛 N🗌 U🗌 |
|---|------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1- 103</u> | |
| Equipment ID No. <u>E-197A</u> Equip. Class <u>21 - Tanks and Exchan</u> | ngers |
| Equipment Description A EDG LUBE OIL HEAT EXCHANGER | |
| 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.) | |
| This does not apply since this item is not part of the 50% requiring anchorage configuration. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| All visible anchorage was free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets that could be impacted 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? There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect. | Y⊠ N∏ U∏ N/A∏ |
| 9. Do attached lines have adequate flexibility to avoid damage? The attached lines have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI |
| | |

Based on the above evaluation, the heat exchanger is free of potentially adverse seismic interaction effects.

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| | Status: Y🛛 N 🗍 U 🗌 | | |
|---|-------------------------|--|--|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-103</u> | | | |
| Equipment ID No. <u>E-197A</u> Equip. Class <u>21 - Tanks and Excha</u> | ngers | | |
| Equipment Description A EDG LUBE OIL HEAT EXCHANGER | | | |
| Other Adverse Conditions | | | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? <i>It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.</i> | Y⊠ N□ U□ | | |
| Comments (Additional pages may be added as necessary) | | | |
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| Evaluated by: <u>Daniel Parker</u> Oml R R | Date: <u>10/11/2012</u> | | |
| Eric Dilbone Erin Dec | 10/11/2012 | | |

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-103

Equipment ID No. E-197A Equip. Class 21 - Tanks and Exchangers

Equipment Description <u>A EDG LUBE OIL HEAT EXCHANGER</u>

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-103

Equipment ID No. <u>E-197A</u> Equip. Class <u>21 - Tanks and Exchangers</u>

Equipment Description <u>A EDG LUBE OIL HEAT EXCHANGER</u>





Engineering Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 520 of 560 Sheet 1 of 5 Status: YX N U Seismic Walkdown Checklist (SWC) __<u>SWEL1-104</u> Equip. Class¹ 21 - Tanks and Heat Exchangers Equipment ID No. E-109 Equipment Description OIL COOLER Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>38</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 1. Is the anchorage configuration verification required (i.e., is the item one YX N of the 50% of SWEL items requiring such verification)? This equipment item is part of the 50% of SWEL items requiring anchorage configuration verification. 2. Is the anchorage free of bent, broken, missing or loose hardware? All anchorage was free of the conditions listed above. 3. Is the anchorage free of corrosion that is more than mild surface oxidation? No corrosion was observed. 4. Is the anchorage free of visible cracks in the concrete near the anchors? No visible cracks were observed in the concrete.

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

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| Seismic Walkdown Checklist (SWC) SWEL1- 104 | Status: Y⊠ N⊡ U⊡ | | |
|--|------------------|--|--|
| Equipment ID No. E-109 Equip. Class 21 - Tanks and Heat Exchangers | | | |
| Equipment Description OIL COOLER | | | |
| 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.) | | | |
| 2008-01239 pg. 103. The anchorage configuration was taken from CR-ANO-1- 2008-01239 pg. 103. The anchorage configuration consists of four bolts, two per angle beam support and each .625 inch in diameter. The anchorage configuration in the equipment drawing was consistent with what was evident in the seismic inspection. | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | | | |
| All anchorage is free of adverse seismic conditions. | | | |
| Interaction Effects | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? All soft targets are free from impact by nearby equipment. | Y⊠ N□ U□ N/A□ | | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead equipment is not likely to collapse onto the equipment item. | Y⊠ N□ U□ N/A□ | | |
| 9. Do attached lines have adequate flexibility to avoid damage? All attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | | | |
| Equipment is free of potentially adverse seismic interaction effects. Item is well anchored to the floor. | | | |

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| Seismic Walkdown Checklist (SWC) <u>SWEL1- 104</u> | |
|--|------------------------------|
| Equipment ID No. <u>E-109</u> Equip. Class <u>21 - Tanks and Heat Ex</u> | changers |
| Equipment Description <u>OIL COOLER</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NI UI |
| Yes, no other seismic conditions that could affect the safety functions of the equipment were discovered. | |
| <u> </u> | , |
| Comments (Additional pages may be added as necessary) | |
| Equipment item, E-109, had no clear visible tag number. Although this wa | s evident in the inspection, |

Equipment item, E-109, had no clear visible tag number. Although this was evident in the inspection, the oil cooler was clearly identified through an image in the SEWS package and also through the tag on the component feeding into the Oil Cooler.

| Evaluated by: <u>Genaro Barragan Jr.</u> | Date: | 10/9/2012 |
|--|-------|-----------|
| Eric Dilbone Eric Dec | | 10/9/2012 |
| | | |

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Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-104

Equipment ID No. E-109 Equip. Class 21 - Tanks and Heat Exchangers

Equipment Description OIL COOLER

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1- 104

Equipment ID No. <u>E-109</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u>

Equipment Description OIL COOLER



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| Seismic Walkdown Checklist (SWC) <u>SWEL1-105</u> | Status: Y N U | |
|--|---------------|--|
| Equipment ID No. <u>N/A</u> Equip. Class ¹ <u>N/A</u> | | |
| Equipment Description <u>NOT USED</u> | | |
| Location: Bldg. <u>N/A</u> Floor El. <u>N/A</u> Room, Area <u>N/A</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 | | |
| 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? | | |
| 3. Is the anchorage free of corrosion that is more than mild surface oxidation? | | |
| 4. Is the anchorage free of visible cracks in the concrete near the anchors? | | |

Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-105</u> | Status: Y N U |
|---|---------------|
| Equipment ID No. <u>N/A</u> Equip. Class_ <u>N/A</u> | |
| Equipment Description <u>NOT USED</u> | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | |
| 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? | |
| 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? | |

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| | Engineerii | ng Report No. CALC-ANO1-CS-12-000 Attachmen Rev |
|---|---|---|
| Sheet 3 of 5 | | Page 527 of 5 |
| Seismic Walkdown Checklis | et (SWC) <u>SWEL1-105</u> | Status: Y N U |
| Equipment ID No. <u>N/A</u> | Equip. Class <u>///</u> | |
| Equipment Description <u>NOT US</u> | ED | <u> </u> |
| Other Adverse Conditions | | |
| Have you looked for and f adversely affect the safety | found no other seismic conditions that could y functions of the equipment? | Y N U |
| <u>Comments (</u> Additional pages ma | ay be added as necessary) | |
| Evaluated by: | | Date: |
| | | |

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|----------------------------------|--------------------------|---------------|
| | | Status: Y N U |
| Seismic Walkdown Checklist (SWC) | SWEL1-105 | _ |
| Equipment ID No. <u>N/A</u> | Equip. Class <u>_N/A</u> | |
| Equipment Description NOT USED | | |
| Photographs | | |
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| | | Status: Y N U |
|----------------------------------|-----------------------------|---------------|
| Seismic Walkdown Checklist (SWC) | SWEL1-105 | |
| Equipment ID No. <u>N/A</u> | _ Equip. Class_ <i>N/</i> A | |
| Equipment Description NOT USED | | |
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| Sciencie Wellsdeum Checkliet (SMC) - SMEL4 400 |
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| Seismic Walkdown Checklist (SWC) |
| Equipment ID No. <u>T-208</u> Equip. Class ¹ <u>21-Tanks and Heat Exchangers</u> |
| Equipment Description ACCUM TANK FOR CV-2234 AIR OPERATOR |
| Location: Bldg. <u>RAB</u> Floor El. <u>356</u> Room, Area <u>77</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N |
| This item is anchored to Item CV-2234 using steel frames. This item is also not part of the 50%. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ It appears that one of the anchored bolts is slightly loose. However, there are no signs for this being an adverse seismic condition for the equipment item. Other than this minor issue, all other anchorage is free of the conditions listed above. |
| 3. Is the anchorage free of corrosion that is more than mild surface YX NI UI N/AI oxidation? |
| No corrosion was observed. |
| 4. Is the anchorage free of visible cracks in the concrete near the Y□ N□ U□ N/A⊠ anchors? |
| Equipment is attached to a metal frame in Item CV-2234. |

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Sheet 1 of 6

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-106</u> | Status: Y⊠ N⊡ U⊡ |
|---|------------------|
| Equipment ID No. <u>T-208</u> Equip. Class <u>21-Tanks and Heat E</u> | xchangers |
| Equipment Description ACCUM TANK FOR CV-2234 AIR OPERATOR | |
| 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.) <i>Item is not part of the 50%.</i> | |
| Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Anchorage is free of potentially adverse seismic conditions. | YX NI UI |
| Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? Soft targets are free from impact by nearby equipment. | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Steel frame protects the tank from overhead hazards. | Y⊠ N∏ U∏ N/A∏ |
| 9. Do attached lines have adequate flexibility to avoid damage? Lines appear to have adequate flexibility. | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Equipment has enough space in its surroundings to avoid negative | Y⊠ N□ U□ |

ngs to avoid nega interaction effects.

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-106</u> | Status: Y⊠ N⊡ U⊡ |
|---|---|
| Equipment ID No. <u>T-208</u> Equip. Class <u>21-Tanks and Heat E</u> | xchangers |
| Equipment Description ACCUM TANK FOR CV-2234 AIR OPERATOR | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? No other seismic conditions that could adversely affect the safety | Y⊠ N□ U□ |
| functions of the equipment were observed. | |
| Comments (Additional pages may be added as necessary) Accumulator tank did not have an equipment ID tag. Tank ID was noted above the tank. Also, one of the anchored bolts was slightly loose; th seismic concern for the accumulator. See images below. | on the tee fitting directly ere are no signs of it being a |
| Evaluated by: <u>Genaro Barragan Jr.</u> | _ Date: <u>10/3/2012</u> |
| Michael E. Perez | 10/3/2012 |

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Status: YX N U

Seismic Walkdown Checklist (SWC) _____SWEL1-106

Equipment ID No. <u>T-208</u> Equip. Class <u>21-Tanks and Heat Exchangers</u>

Equipment Description ACCUM TANK FOR CV-2234 AIR OPERATOR

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-106</u>

Equipment ID No. <u>T-208</u> Equip. Class <u>21-Tanks and Heat Exchangers</u>

Equipment Description ACCUM TANK FOR CV-2234 AIR OPERATOR



Note: General image of Accumulator Tank.



Note: Image shows the anchorage configuration of the accumulator tank.

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-106</u>

Equipment ID No. <u>T-208</u> Equip. Class <u>21-Tanks and Heat Exchangers</u>

Equipment Description ACCUM TANK FOR CV-2234 AIR OPERATOR



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|--|
| Sheet 1 of 5 |
| Status: Y NUU |
| Equipment ID No. <u>N/A</u> Equip. Class ¹ <u>N/A</u> |
| Equipment Description NOT USED |
| Location: Bldg. <u>N/A</u> Floor El. <u>N/A</u> Room, Area <u>N/A</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N of the 50% of SWEL items requiring such verification)? |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A |
| 3. Is the anchorage free of corrosion that is more than mild surface Y N U N/A oxidation? |
| 4. Is the anchorage free of visible cracks in the concrete near the Y N U N/A anchors? |

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

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|---|---|
| Sheet 2 of 5 | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-107</u> | Status: Y N U |
| Equipment ID No. <u>N/A</u> Equip. Class <u>N/A</u> | |
| Equipment Description NOT USED | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) | Y N U N/A |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | Y N U |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? | |
| 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? | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | |

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|--|---|
| Sheet 3 of 5 | C |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-107</u> | Status: Y N U |
| Equipment ID No. <u>N/A</u> Equip. Class <u>N/A</u> | |
| Equipment Description NOT USED | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | Y N U |
| | |
| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: | Date: |
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| Sheet 4 of 5 | | | |
|---------------------------------------|--------------|-------|---------------|
| | | | Status: Y N U |
| Seismic Walkdown Checklist (SWC) _ | SWEL1-1 | 07 | |
| Equipment ID No. <u>N/A</u> E | Equip. Class | s_N/A | |
| Equipment Description <u>NOT USED</u> | | | ····· |
| Photographs | | | |
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| Sheet | 5 | of | 5 | |
|-------|---|----|---|--|
|-------|---|----|---|--|

| Seismic Walkdown Checklist (SWC) <u>SWEL1-107</u> | | | Status: Y N U |
|---|--------------------------|-------|---------------|
| Equipment ID No. <u>N/A</u> | Equip. Class_ <i>N/A</i> | | |
| Equipment Description NOT USED | | | |
| Note: | | Note: | |
| | | | |

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| Status: YX N U |
|--|
| Equipment ID No. E-35A Equip. Class ¹ 21 - Tanks and Heat Exchangers |
| Equipment Description <u>'A' LOOP DH CLR</u> |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>14</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 |
| Is the anchorage configuration verification required (i.e., is the item one Y N N |
| This equipment is anchored to two concrete pedestals. Anchorage configuration verification is required for this equipment. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? YX N UNA |
| Anchorage appears to be free from the conditions stated above. |
| |
| 3. Is the anchorage free of corrosion that is more than mild surface YX N U N/A |
| No signs of any type of corrosion have been found on the anchorage of the component. |
| Is the anchorage free of visible cracks in the concrete near the Y⊠ N□ U□ N/A□ anchors? |
| No cracks were observed in the concrete piers in the vicinity of the anchor bolts. Concrete piers (3ft high) appeared to be in sound condition. |

Sheet 1 of 5

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

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| Seismic Walkdown Checklist (SWC) <u>SWEL1-108</u> | Status: Y⊠ N∏ U∏ |
|--|------------------|
| Equipment ID No. <u>E-35A</u> Equip. Class <u>21 - Tanks and Heat I</u> | Exchangers |
| Equipment Description ' <u>A' LOOP DH CLR</u> | |
| 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 that has been found during the inspection complied with the specifications stated in the documentation (CALC-94-SQ-1001-21, page 25 and Drawing C-261, Sht. 1, Rev. 15). | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX NI UI |
| All anchorage supporting the system was found to be free from adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? None of the soft targets found in the equipment have been shown to potentially suffer impact by nearby equipment. | Y⊠ N∏ U∏ N/A∏ |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Overhead equipment near Item E-35B appeared to be properly secured so as to avoid any collapse during a seismic hazard. | Y⊠ N∏ U∏ N/A∏ |
| 9. Do attached lines have adequate flexibility to avoid damage? All attached lines have been ruled to have adequate flexibility. | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI |

Equipment appears to be free from seismic interaction effects.

Sheet 2 of 5

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| Status: YX NUU Seismic Walkdown Checklist (SWC) <u>SWEL1-108</u> |
|--|
| Equipment ID No. <u>E-35A</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u> |
| Equipment Description <u>'A' LOOP DH CLR</u> |
| Other Adverse Conditions |
| Have you looked for and found no other seismic conditions that could Y⊠ N□ U□ adversely affect the safety functions of the equipment? No other seismic conditions were found to affect the equipment's integrity. |
| Comments (Additional pages may be added as necessary) |
| The anchorage found in the system appeared to be in very good condition. There was no sign of oxidation. Additionally, no cracks in the concrete were observed. |

Sheet 3 of 5

| Evaluated by: Michael Perez | Date: 10/11/2012 |
|-----------------------------|------------------|
| Sean Smolarek San Suit | 10/11/2012 |
| | |

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) __SWEL1-108

Equipment ID No. E-35A Equip. Class 21 - Tanks and Heat Exchangers

Equipment Description <u>'A' LOOP DH CLR</u>

Photographs



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Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-108</u>

Equipment ID No. <u>E-35A</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u>

Equipment Description <u>'A' LOOP DH CLR</u>



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| Status: YX NI U |
|--|
| Equipment ID No. <u>E-35B</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u> |
| Equipment Description 'B' LOOP DH CLR |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>11</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 |
| Is the anchorage configuration verification required (i.e., is the item one YX N YX N of the 50% of SWEL items requiring such verification)? |
| This equipment is anchored to two concrete pedestals. Anchorage configuration verification is required for this equipment. |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ Anchorage appears to be free from the conditions stated above. |
| 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? |
| No signs of any type of corrosion have been found on the anchorage of the component. |
| Is the anchorage free of visible cracks in the concrete near the YX N□ U□ N/A□ anchors? |
| No cracks were observed in the concrete piers in the vicinity of the anchor bolts. Concrete piers (3ft high) appeared to be in sound condition. |

Sheet 1 of 5

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

| Engineering | g Report No. CALC-ANO1-CS-12-00002 Attachment C Rev. 0 Page 547 of 560 | | |
|---|---|--|--|
| | Status: Y🛛 N 🗍 U 🗌 | | |
| Seismic Walkdown Checklist (SWC) <u>SWEL1-109</u> | | | |
| Equipment ID No. <u>E-35B</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u> | | | |
| Equipment Description <u>'B' LOOP DH CLR</u> | | | |
| 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 that has been found during the inspection complied with the specifications stated in the documentation (CALC-94-SQ-1001-21, page 25 and Drawing C-261, Sht. 1, Rev. 15). | | | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U | | |
| All anchorage supporting the system was found to be free from adverse seismic conditions. | | | |
| Interaction Effects | | | |
| 7. Are soft targets free from impact by nearby equipment or structures? None of the soft targets found in the equipment have been shown to potentially suffer impact by nearby equipment. | Y⊠ N∏ U∏ N/A∏ | | |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? | | | |
| Overhead equipment near Item E-35B appeared to be properly secured so as to avoid any collapse during a seismic hazard. | | | |
| 9. Do attached lines have adequate flexibility to avoid damage? All attached lines have been ruled to have adequate flexibility. | | | |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI | | |

Equipment appears to be free from seismic interaction effects.

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| | Status: Y🛛 N🗌 U |
|---|-----------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-109</u> | |
| Equipment ID No. <u>E-35B</u> Equip. Class <u>21 - Tanks and Heat</u> | Exchangers |
| Equipment Description <u>'B' LOOP DH CLR</u> | |
| Other Adverse Conditions | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX NO UO |
| No other seismic conditions were found to affect the equipment's integrity. | |
| | |
| <u>Comments (Additional pages may be added as necessary)</u> | |

Sheet 3 of 5

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The anchorage found in the system appeared to be in very good conditions. Anchor bolts did not show any signs of oxidation, nor were cracks in the concrete piers detected. No tag ID was found for this component, but it was clear to determine the identity of this equipment item due to its description and large size.

| Evaluated by: Daniel Andon Dan Kill Pl, | Date: <u>10/4/2012</u> | |
|---|------------------------|--|
| Michael E. Perez | 10/4/2012 | |
| Michael E. Perez | <u>10/4/2012</u> | |

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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-109</u>

Equipment ID No. E-35B Equip. Class 21 - Tanks and Heat Exchangers

Equipment Description <u>'B' LOOP DH CLR</u>

Photographs



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Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL1-109

Equipment ID No. <u>E-35B</u> Equip. Class <u>21 - Tanks and Heat Exchangers</u>

Equipment Description <u>'B' LOOP DH CLR</u>



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| Seismic Walkdown Checklist (SWC) SWEL1-110 | | |
|--|--|--|
| | | |
| Equipment ID No. <u>P-107B</u> Equip. Class ¹ <u>5 – Horizontal Pumps</u> | | |
| Equipment Description LUBE OIL SCAVENGING PUMP | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</u> | | |
| Manufacturer, Model, Etc. (optional but recommended) <u>Electro-Motive 645E4B Turbocharged Diesel Engine</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 | | |
| Is the anchorage configuration verification required (i.e., is the item one Y NX NX NK NK | | |
| Items is not part of the 50% anchorage configuration verification. | | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□ The anchorage is free of bent, broken, missing and loose hardware. | | |
| Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation? The anchorage is free of corrosion. | | |
| 4. Is the anchorage free of visible cracks in the concrete near the Y N□ U□ N/A□ anchors? Component mounted to EDG skid. No cracks in concrete around skid anchorage. | | |

Sheet 1 of 5

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

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| | Status: Y🛛 N🗌 U🗌 |
|---|------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-110</u> | |
| Equipment ID No. <u>P-107B</u> Equip. Class <u>5 – Horizontal Pumps</u> | |
| Equipment Description LUBE OIL SCAVENGING PUMP | |
| 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.) | |
| This is not applicable since it is not part of the 50% of SWEL items requiring anchorage configuration verification. | |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | YX N U |
| Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? The Lube Oil Scavenger Pump is bolted low at the accessory end of the diesel engine. This component is shielded by additional engine components attached above on the accessory end. | 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 overhead duct work that is properly secured with steel hangers. | Y⊠ N□ U□ N/A□ |
| 9. Do attached lines have adequate flexibility to avoid damage? <i>Attached lines have adequate flexibility.</i> | Y⊠ N∏ U∏ N/A∏ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | YX NI UI |

Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Sheet 2 of 5

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| | Status: | YX N U |
|---|---------|--------|
| Seismic Walkdown Checklist (SWC) <u>SWEL1-110</u> | | |
| Equipment ID No. P-107B Equip. Class 5 - Horizontal Pumps | | |
| Equipment Description <u>LUBE OIL SCAVENGING PUMP</u> | | |
| Other Adverse Conditions | | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | Y⊠ N∏ U | ЪП |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found. | | |
| · · · · · · · · · · · · · · · · · · · | | |

<u>Comments</u> (Additional pages may be added as necessary)

Sheet 3 of 5

The Lube Oil Scavenger Pump is a critical component of the diesel engine. Every mounting bolt was observed to be in place. The entire engine appeared clean and well maintained. There were no visible leaks or signs of previous leaks at any location were accessory components were bolted to the main engine block.

| Lube Of Scavenger Pump The Charter Left Front View, 16 Cylinder | | 3) |
|--|-------|-----------|
| Evaluated by: <u>Daniel Parker</u> | Date: | 10/2/2012 |
| Fric Dilbone Eris OEcon | | 10/2/2012 |

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) _____ SWEL1-110___

Equipment ID No. P-107B Equip. Class 5 - Horizontal Pumps

Equipment Description <u>LUBE OIL SCAVENGING PUMP</u>

Photographs



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Status: YX N U

Seismic Walkdown Checklist (SWC) <u>SWEL1-110</u>

Equipment ID No. <u>P-107B</u> Equip. Class <u>5 – Horizontal Pumps</u>

Equipment Description <u>LUBE OIL SCAVENGING PUMP</u>



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| Status: Seismic Walkdown Checklist (SWC) SWEL2-001 | YX NU U |
|--|--|
| Equipment ID No. <u>SW-72</u> Equip. Class <u>7 - Pneumatic-Operated Valves</u> | |
| Equipment Description SW TO SFP EL 404' SERV CONN | |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>159</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 e SWEL. The space below each of the following questions may be used to record the results findings. Additional space is provided at the end of this checklist for documenting other com | equipment on the of judgments and ments. |
| Anchorage | |
| Is the anchorage configuration verification required (i.e., is the item one Y N N∑ of the 50% of SWEL items requiring such verification)? | |
| Anchorage verification is not required since this is an in-line component. | |
| 2. Is the anchorage free of bent, broken, missing or loose hardware? Y \square N \square | |
| This is not applicable since this is an in-line component. | |
| | |
| 3. Is the anchorage free of corrosion that is more than mild surface Y □ N □ oxidation? | U N/A |
| This is not applicable since this is an in-line component. | |
| | |
| Is the anchorage free of visible cracks in the concrete near the Y N N anchors? | U N/A |
| This is not applicable since this is an in-line component. | |

Sheet 1 of 5

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

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| | Status: Y🛛 N 🗌 U |
|--|-----------------------|
| Seismic Walkdown Checklist (SWC) <u>SWEL2-001</u> | |
| Equipment ID No. <u>SW-72</u> Equip. Class <u>7 - Pneumatic-Op</u> | perated Valves |
| Equipment Description SW TO SFP EL 404' SERV CONN | |
| Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for wh an anchorage configuration verification is required.) This item is not part of the 50%. | Y N U N/A⊠ ich |
| 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? | f Y⊠ N□ U□ |
| The anchorage is free of potentially adverse seismic conditions. | |
| | |
| Interaction Effects | |
| 7. Are soft targets free from impact by nearby equipment or structures? There are no soft targets to be affected by nearby equipment or structures. | ? Y⊠ N∏ U∏ N/A∏ |
| 8. Are overhead equipment, distribution systems, ceiling tiles and lighti and masonry block walls not likely to collapse onto the equipment? There is a masonry block wall next to the component, but it is seismically qualified. | ng, Y 🔀 N 🗌 U 🗌 N/A 🗌 |
| 9. Do attached lines have adequate flexibility to avoid damage? Attached lines have adequate flexibility. | Y⊠ N□ U□ N/A□ |
| 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? | ee Y⊠N□U□ |
| Report on the above exismic interaction evaluations, the equipment is | |

Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Sheet 2 of 5

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| Seismic Walkdown Checklist (SWC) <u>SWEL2-001</u> | Status: Y⊠ N⊡ U⊡ | |
|--|------------------|--|
| Equipment ID No. <u>SW-72</u> Equip. Class <u>7 - Pneumatic-Operat</u> | ed Valves | |
| Equipment Description SW TO SFP EL 404' SERV CONN | | |
| Other Adverse Conditions | | |
| 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? | YX N U | |
| It was looked for, and no other seismic conditions that could adversely affect the safety fuctions were found. | | |
| | | |
| Comments (Additional pages may be added as necessary) | | |

Sheet 3 of 5

| Evaluated by: Sean Smolarek Seur Such | Date: | 10/12/2012 |
|---------------------------------------|-------|------------|
| Eric Dilbone Erin Decen | | 10/12/2012 |
| | | |

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Sheet 4 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL2-001

Equipment ID No. <u>SW-72</u> Equip. Class 7 - Pneumatic-Operated Valves

Equipment Description SW TO SFP EL 404' SERV CONN

Photographs



Sheet 5 of 5

Status: YX N U

Seismic Walkdown Checklist (SWC) SWEL2-001

Equipment ID No. <u>SW-72</u> Equip. Class <u>7 - Pneumatic-Operated Valves</u>

Equipment Description SW TO SFP EL 404' SERV CONN



Attachment D

Area Walk-By Checklists (AWCs)

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| Engine | ring Report No. CALC-ANOI-CS-12-00002 Attachment D Rev. 0 Page 2 of 152 | | |
|--|--|--|--|
| Sheet 1 of 5 | Status: Y⊠ N□ U□ | | |
| Area Walk-By Checklist (AWC) <u>AWC- 001</u> | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area ¹ <u>87</u> | <u> </u> | | |
| SWEL Components: <u>SWEL1- 001 (M-112A), 011 (P-108A), 015 (P-104A), 016 (CV-5218), 046</u> (SV-5218), 056 (KMA-1), 057 (TV-7901B), 062 (F-50A), 063 (M-227A), 067 (SS-5211), 073 (LSL- 5206), 101 (T-78A), 103 (E-197A) | | | |
| 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 | ar one or more SWEL items. The Its of judgments and findings. er comments. | | |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | YX N UNA | | |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area is 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)? <i>From the floor, cable/conduit raceways and HVAC ducting appears be free of potentially adverse seismic conditions.</i> | Y⊠ N∏ U∏ N/A∏ Э | | |

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¹ 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.

| Engineering | Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 3 of 152 |
|--|---|
| Sheet 2 of 5 | Status: Y🛛 N 🗌 U |
| Area Walk-By Checklist (AWC) <u>AWC-001</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>87</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)? The area is free of potentially adverse seismic spatial interactions with | Y 🛛 N 🗌 U 🗌 N/A 🗌 |
| other equipment in the area. | |
| 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 fire water system in the room, in addition to service water piping. The room is equipped with floor drains to mitigate a release of water in the room. | 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area. | Y⊠ N□ U□ N/A□ |
| 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)? It was noted that engineering-approved scaffolding is assembled on the North, East and West sides of the room at the time of inspection. | Y⊠ N□ U□ N/A□ |

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|---|---|
| Sheet 3 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 001</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>87</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? <i>It was looked for, and no other seismic conditions that could affect the</i> | YX N U |
| safety functions of equipment in the area were found. | |
| | |
| | |
| Comments (Additional pages may be added as necessary) | |
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| | |
| Evaluated by: <u>Daniel Parker</u> Oak R. R. | Date: <u>10/11/2012</u> |
| Eric Dilbone trin Ozer | 10/11/2012 |
| | |

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Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-001</u>

Location: Bldg. RAB Floor El. 369 Roo/m, Area² 87

SWEL Components: SWEL1- 001 (M-112A), 011 (P-108A), 015 (P-104A), 016 (CV-5218), 046 (SV-5218), 056 (KMA-1), 057 (TV-7901B), 062 (F-50A), 063 (M-227A), 067 (SS-5211), 073 (LSL-5206), 101 (T-78A), 103 (E-197A)

Photographs



² 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.

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Status: YX N U

Area Walk-By Checklist (AWC) ____AWC-001__

Location: Bldg. RAB Floor El. 369 Room, Area3 87

SWEL Components: <u>SWEL1- 001 (M-112A), 011 (P-108A), 015 (P-104A), 016 (CV-5218), 046</u> (SV-5218), 056 (KMA-1), 057 (TV-7901B), 062 (F-50A), 063 (M-227A), 067 (SS-5211), 073 (LSL-5206), 101 (T-78A), 103 (E-197A)



³ 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.

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| Sheet 1 of 6 | Status: VIX NIL III |
| Area Walk-By Checklist (AWC) <u>AWC- 002</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> | Room, Area¹ <u>38 (Entire Room)</u> |
| SWEL Components: <u>SWEL1- 002(K-3), 004(C</u> 043(CV-2806), 025(CV-2800), 074(PIT-2812) | V-6601A), 012(P-7A), 084(PI-2811A), 104(E-109), |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results or space below each of the following questions may be Additional space is provided at the end of this checkli | f the Area Walk-By near one or more SWEL items. The used to record the results of judgments and findings. st for documenting other comments. |
| Does anchorage of equipment in the area app potentially adverse seismic conditions (if visib opening cabinets)? Anchorage of equipment in the area appears adverse seismic conditions. | ear to be free of Y⊠ N□ U□ N/A□ le without necessarily to be free of potentially |
| 2. Does anchorage of equipment in the area app significant degraded conditions? Anchorage of equipment in the area appears degraded conditions. | bear to be free of Y⊠ N□ U□ N/A□ to be free of significant |
| 3. Based on a visual inspection from the floor, duraceways and HVAC ducting appear to be freseismic conditions (e.g., condition of supports conditions of cable trays appear to be inside a <i>All rigid electrical conduit is adequately anchor the walls. Overhead piping and ducts appear</i> | to the cable/conduit $Y \boxtimes N \square U \square N/A \square$ e of potentially adverse is adequate and fill acceptable limits)? ared to the overhead and to be properly secured. |

¹ 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.

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| Sheet 2 of 6 | Status: YX N U |
|---|----------------|
| Area Walk-By Checklist (AWC) <u>AWC- 002</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>38 (Entire Ro</u> | oom) |
| 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)? | |
| There is unique connection in a lighting fixture above Item P-7B. It seems that the support of the lighting fixture has broken and to remedy the missing piece, a metal tie was applied to tie the broken support. However, this is acceptable considering the weight of the light and since it can't be disconnected from the support. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | |
| The area appears to be free of potentially adverse seismic conditions that could cause flooding or spray in the area. | |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | |
| One pipe has insulation which has been soaked in oil. However, this has already been acknowledged by maintenance. A "caution" sign is placed near the insulated pipe. | |
| 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∏ |
| The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | |

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|--|---|
| Sheet 3 of 6 | Status: Y⊠ N□ U□ |
| Area Walk-By Checklist (AWC) <u>AWC- 002</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Ar | a <u>38 (Entire Room)</u> |
| 8. Have you looked for and found no other seismic conditionadversely affect the safety functions of the equipment in There are no other seismic conditions that were identified the seismic conditions the seismic conditions the seismic conditions that were identified the seismic conditions the seismic condi | ns that could Y⊠ N∏ U∏ the area? <i>d.</i> |
| Comments (Additional pages may be added as necessary) | |
| Anchorages in the area are found to be in adequate cor | ditions. There is a fire extinguisher in the area |

Inchorages in the area are found to be in adequate conditions. There is a fire extinguisher in the area that may come loose, but there are no credible targets. There is one overhead equipment item (VUC-6) that may potentially affect the area. But because it is well supported by 2 thread rods (one on each side) as well as 4 welded angle sections, it is very unlikely for a seismic hazard to occur.

Evaluated by: Daniel Parker m Date: 10/8/2012 Michael E. Perez 10/8/2012

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 10 of 152 Sheet 4 of 6 Status: YX N U Area Walk-By Checklist (AWC) ____AWC- 002___ Location: Bldg. RAB Floor El. 335 Room, Area 38 (Entire Room) SWEL Components: <u>SWEL1- 002(K-3), 004(CV-6601A), 012(P-7A), 084(PI-2811A), 104(E-109),</u> 043(CV-2806), 025(CV-2800), 074(PIT-2812) Photographs Note: Anchorage in the area appears to be in Note: Observe unusual light support, good condition. however, this will induce no motion during a seismic event.

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Status: YX N U

Area Walk-By Checklist (AWC) ____AWC-002___

Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>38 (Entire Room)</u>

SWEL Components: <u>SWEL1- 002(K-3), 004(CV-6601A), 012(P-7A), 084(PI-2811A), 104(E-109),</u> 043(CV-2806), 025(CV-2800), 074(PIT-2812)



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Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-002</u>

Location: Bldg. RAB Floor El. 335 Room, Area 38 (Entire Room)

SWEL Components: <u>SWEL1- 002(K-3), 004(CV-6601A), 012(P-7A), 084(PI-2811A), 104(E-109),</u> 043(CV-2806), 025(CV-2800), 074(PIT-2812)



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| | Status: Y🛛 N 🗌 U |
| Area Walk-By Checklist (AWC) <u>AWC- 003</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area ¹ <u>56</u> | |
| SWEL Components: <u>SWEL- 003(F-57A), 030(CV-1276)</u> | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Area Walk-By near o | ne or more SWEL items. 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 t | omments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | |
| Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area appears 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)? HVAC ductwork is in good general condition. | Y⊠ N□ U□ N/A□ |

¹ 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.

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| Sheet 2 of 5 | |
|---|------------------|
| Area Walk-By Checklist (AWC) <u>AWC- 003</u> | Status: YX NU UU |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area ² <u>56</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)? The area is free of potentially adverse seismic spatial interactions with other equipment 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? The area appears to be free of potentially adverse seismic conditions 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? A vertical pipe near CV-1276 was wrapped in clear plastic. | Y⊠ N∏ U∏ N/A∏ |
| 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 area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | Y⊠ N⊡ U⊡ N/A⊡ |

² 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.

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| Sheet 3 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 003</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area ₃ <u>56</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? | YX NI UI |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. | |
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| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: <u>Daniel Parker</u> David R Ru | _ Date: <u>10/12/2012</u> |
| Eric Dilbone Grin Decen | <u>10/12/2012</u> |
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³ 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.

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Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) ____AWC- 003___ Location: Bldg. RAB Floor El. 335 Room, Area4 56 SWEL Components: SWEL- 003(F-57A), 030(CV-1276) Photographs Note: Room 56 Overhead ducting. Note: Room 56 overhead insulated pipes.

⁴ 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.

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⁵ 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.

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| Sheet 1 of 5 | Status: YX NI UI |
| Area Walk-By Checklist (AWC) <u>AWC- 004</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> | Room, Area ¹ <u>104</u> |
| SWEL Components: <u>SWEL1- 005 (D-15), 079</u> 096 (PY-2667-A1), 081 (C539A) | 9 (PY-2618-A1), 093 (PY-1042A), 095 (LY-4204A), |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of space below each of the following questions may be Additional space is provided at the end of this checkling | of the Area Walk-By near one or more SWEL items. The e used to record the results of judgments and findings. dist for documenting other comments. |
| Does anchorage of equipment in the area ap potentially adverse seismic conditions (if visit opening cabinets)? | opear to be free of YX N UNA |
| Anchorage of equipment in the area appears adverse seismic conditions. | s to be free of potentially |
| Does anchorage of equipment in the area ap significant degraded conditions? | opear to be free of YX N UN/A |
| Anchorage in the area appears to be free of a conditions. | significant degraded |
| Based on a visual inspection from the floor, or raceways and HVAC ducting appear to be free seismic conditions (e.g., condition of supports conditions of cable trays appear to be inside Based on visual inspection from the floor, the and HVAC ducting appear to be free of poter | do the cable/conduit Y N U N/A ee of potentially adverse ts is adequate and fill acceptable limits)? e cable/conduit raceways ntially adverse seismic |
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¹ 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.

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| Sheet 2 of 5 Area Walk-By Checklist (AWC) <u>AWC- 004</u> | Status: Y⊠ N⊟ U⊟ |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</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)? | |
| The area appears to be free of potentially adverse seismic spatial interactions with other equipment. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? A room cooler is present in the room. It appears to be adequately installed and will not present a source of flooding or spray. It is located far enough away from safety related equipment that if it were to induce spray, it would not adversely impact the safe shutdown of the plant. Floor drains are present. | 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | 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 area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment and temporary installations. | |

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| Sheet 3 of 5 | Status: VX N U | |
| Area Walk-By Checklist (AWC) <u>AWC- 004</u> | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>368</u> Room, Area <u>104</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? | | |
| It was looked for and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. | | |
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| Comments (Additional pages may be added as necessary) | • | |
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| Evaluated by: Eric Dilbone Eric Occore | Date: <u>10/10/2012</u> | |
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| Daniel Parker | 10/10/2012 | |

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Status: YX N U

Area Walk-By Checklist (AWC) __AWC-004__

Location: Bldg. RAB Floor El. 368 Room, Area 104

SWEL Components: <u>SWEL1- 005 (D-15), 079 (PY-2618-A1), 093 (PY-1042A), 095 (LY-4204A),</u> 096 (PY-2667-A1), 081 (C539A)



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|--|---|
| Sheet 1 of 5 Area Walk-By Checklist (AWC) <u>AWC- 005</u> | Status: Y⊠ N∏ U∏ |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area ¹ <u>99</u> | |
| SWEL Components: <u>SWEL1- 007 (B-6)</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 Additional space is provided at the end of this checklist for documenting other of | ne or more SWEL items. The 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)? Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | YX N UNA |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage in the area appears 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)? Based on visual inspection from the floor, the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions. | |

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¹ 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.
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| | Status: Y🛛 N🗌 U | | |
| Area Walk-By Checklist (AWC) <u>AWC- 005</u> | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>99</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)? | YX N U U N/A | | |
| The area appears to be free of potentially adverse seismic spatial interactions with other equipment. Lighting near sensitive equipment is mounted on unistrut, and near non-sensitive equipment is on chains and closed S-hooks. | | | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? A room cooler is present in the room. It appears to be adequately installed and will not present a source of flooding or spray. It is located far enough away from safety related equipment that if it were to induce spray, it would not adversely impact the safe shutdown of the plant. Floor drains are present. | | | |
| Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | 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 area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment and temporary installations. It was noted that a ladder in the room is stored on the floor and chained to the wall. | Y⊠ N□ U□ N/A□ | | |

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| Sheet 3 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 005</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>99</u> | |
| Have you looked for and found no other seismic conditions tha adversely affect the safety functions of the equipment in the art | t could Y⊠ N⊟ U⊟ ea? |
| It was looked for and no other seismic conditions that could ad affect the safety functions of the equipment in the area were fo | versely und. |
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| Comments (Additional pages may be added as necessary) | |
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| Evaluated by: <u>Daniel Parker</u> Dank K | Date: <u>10/11/2012</u> |
| Eric Dilbone Eric Decen | 10/11/2012 |

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Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) <u>AWC-005</u> Location: Bldg. RAB Floor El. 372 Room, Area 99 SWEL Components: SWEL1-007 (B-6) Photographs VUC-2D 3-6 <u>c</u> Crash B 110.00 Note: View of equipment in Room 99, Note: Equipment ID tag of the room cooler including SWEL item, B-6. identified in the room.

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Status: YX N U

Area Walk-By Checklist (AWC) _____AWC-005___

Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>99</u>

SWEL Components: SWEL1-007 (B-6)



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| Area Walk-By Checklist (AWC) <u>AWC- 006</u> | _ | · · · · · | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> | _ Room, Area ¹ <u>1</u> | 00 | | |
| SWEL Components: <u>SWEL1- 008 (X-52), 06</u> | 1 (Y-03) | | | |
| Instructions for Completing Checklist | | | | |
| This checklist may be used to document the results space below each of the following questions may be Additional space is provided at the end of this check | of the Area Wall e used to record klist for documen | c-By near one or the results of jud ting other comm | more SWEL i gments and fi ents. | tems. The ndings. |
| Does anchorage of equipment in the area appotentially adverse seismic conditions (if visiopening cabinets)? No potentially adverse seismic conditions was anchorage in the area. | ppear to be free o ible without nece vere observed in e | of Y∑ ssarily equipment | 3 N UUI | N/A |
| 2. Does anchorage of equipment in the area and significant degraded conditions? Anchor bolts in surrounding equipment were cracks in the concrete were found. | ppear to be free o | of Y∑ ok. No | אם עם ו מווים ע | N/A |
| 3. Based on a visual inspection from the floor, raceways and HVAC ducting appear to be fr seismic conditions (e.g., condition of suppor conditions of cable trays appear to be inside HVAC and pipe supports appeared to be an condition. Cable trays were not overfilled an supported. | do the cable/con ree of potentially rts is adequate ar e acceptable limit dequate and in go ad appear to be a | duit Y∑ adverse nd fill s)? od dequately | 3 n[] u[] I | N/A 🗌 |

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¹ 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.

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|--|--|
| Sheet 2 of 6 | 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)? | |
| The area appears to be free of potentially adverse spatial interactions with other equipment in the area. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? The area appears to be 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area. | Y⊠ N□ U□ N/A□ |
| 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)? No potentially adverse seismic interactions were observed. | Y⊠ N□ U□ N/A□ |

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| | Attachr | ment D |
| | Page 30 | Rev. 0 |
| Sheet 3 of 6 | Tuge 50 | 01 152 |
| | Status: YX N U | |
| Area Walk-By Checklist (AWC) <u>AWC- 006</u> | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>100</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? <i>No other adverse seismic conditions were observed.</i> | YX NI UI | |
| | | |
| | | |
| <u>Comments (Additional pages may be added as necessary)</u> | | |
| <u>Comments (</u> Additional pages may be added as necessary) In general the area was observed to be free of degraded conditions. An condition. | nchorage appears to be in good | - |
| <u>Comments (</u> Additional pages may be added as necessary) In general the area was observed to be free of degraded conditions. An condition. | nchorage appears to be in good | - |
| Comments (Additional pages may be added as necessary) In general the area was observed to be free of degraded conditions. An condition. | chorage appears to be in good | |
| <u>Comments (</u> Additional pages may be added as necessary) In general the area was observed to be free of degraded conditions. An condition. | nchorage appears to be in good | - |
| Comments (Additional pages may be added as necessary) In general the area was observed to be free of degraded conditions. An condition. Evaluated by: Daniel Andoh | chorage appears to be in good Date: <u>10/12/2012</u> | |

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Sheet 4 of 6

Area Walk-By Checklist (AWC) _AWC- 006______

Location: Bldg. RAB _____ Floor El. 372 _____ Room, Area 100______

SWEL Components: SWEL1- 008 (X-52), 061 (Y-03)

Photographs

Note: Overhead supports

Note: Surrounding conditions

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Sheet 5 of 6 Status: YX N U Area Walk-By Checklist (AWC) _____AWC-006___ Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>100</u> SWEL Components: SWEL1-008 (X-52), 061 (Y-03) in the second Note: Overhead supports Note: Overhead supports

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Sheet 6 of 6

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC- 006___

Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>100</u>

SWEL Components: SWEL1-008 (X-52), 061 (Y-03)



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| Sheet 1 of 5 | Status: Y⊠ N∏ U∏ |
| Area Walk-By Checklist (AWC) <u>AWC- 007</u> | |
| Location: Bldg. <u>DSB</u> Floor El. <u>YARD</u> Room, Area ¹ <u>252</u> | |
| SWEL Components: <u>SWEL1- 010 (P-16A)</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 | one or more SWEL items. The of judgments and findings. comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? No potential adverse anchorage issues. | Y⊠ N□ U□ N/A□ |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchor bolts below F0-10A have significant degradation. CR-ANO-1-2012-1536 is initiated. | 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)? There is no tray in room, conduit supports and HVAC ducting are supported well. | Y⊠ N□ U□ N/A□ |

¹ 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.

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|--|
| Status: YX N U |
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| Y⊠ N⊡ U⊡ N/A⊡ |
| Y⊠ N□ U□ N/A□ |
| Y⊠ N□ U□ N/A□ |
| Y⊠ N□ U□ N/A□ |
| |

² 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.

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|---|--|
| | Page 36 of 152 |
| Sheet 3 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 007</u> | |
| Location: <u>DSB</u> Floor El. <u>YARD</u> Room, Area ³ <u>252</u> Bldg. | |
| 8. Have you looked for and found no other seismic conditions that co adversely affect the safety functions of the equipment in the area? | puld Y X N U |
| Rust on pipe support for fire suppression system. | × |
| | |
| | |
| <u>Comments (Additional pages may be added as necessary)</u> | ······································ |
| Degradation has been found for the anchor bolts within Item FO-1 Housekeeping appeared to be adequate in the area. | 0A, which needs further inspection. |
| Nuts on a personnel platform were loose. CR-ANO-1-2012-0153 | 7 initiated |
| | |
| | |
| Evaluated Roy Berryman | Date: <u>10/10/2012</u> |
| Michael E. Perez | 10/10/2012 |
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³ 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.

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⁴ 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.

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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC-007___

Location: Bldg. <u>DSB</u> Floor El. <u>YARD</u> Room, Area⁵ <u>252</u>

SWEL Components: SWEL1- 010 (P-16A)



⁵ 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.

| Enginee | ring Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 |
|---|---|
| Sheet 1 of 5 | Page 39 of 152 |
| Area Walk-By Checklist (AWC) AWC- 008 | Status: Y⊠ N⊡ U⊡ |
| Location: Bldg DSB Eloor EL YARD Room Area: 251 | |
| SWEL Components: SWEL1- 014 (P-16B) | |
| 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 othe | r one or more SWEL items. The ts of judgments and findings. r comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Tank equipment ID T-57B in room has an anchor bolt that appears to be bent and is not tightened fully. No other anchorage issues identifie CR-ANO-1-2012-1537 has been initiated. | Y N ⊠_ U N/A d. |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchor bolts below FO-10B have significant degradation. 2 anchor bolts have significant degradation on tank (T-57B). CR-ANO-1-2012- 1536 is initiated. | |
| 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)? There is no tray in room, conduit supports and HVAC ducting are supported well. | Y⊠ N□ U□ N/A□ |

¹ 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.

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|---|--|
| Sheet 2 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 008</u> | Status: YX N U |
| Location: Bldg. <u>DSB</u> Floor El. <u>YARD</u> Room, Area ² <u>251</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)? No tiles in room, lights are supported well. | 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? <i>Large tank is a source of potential flooding also fire suppresion system</i> . | 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? The only fire source is the tank in room. | Y⊠ N□ U□ N/A□ |
| 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)? No portable equipment in room. No other housekeeping issues identified. | Y⊠ N□ U□ N/A□ |

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² 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.

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| Sheet 3 of 5 | |
|--|---|
| Area Walk-By Checklist (AWC) <u>AWC- 008</u> | |
| Location: <u>DSB</u> Floor El. <u>YARD</u> Room, Area ³ <u>251</u> Bldg. | |
| 8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? <i>No other adverse seismic conditions were identified.</i> | Y⊠N□U□ |
| <u>Comments</u> (Additional pages may be added as necessary) Most of the issues in the area occur at the anchorage of the tank. The fi anchor bolt that appears to be slightly bent. This may need to be adj 1536). The second issue is that for two anchor bolts for this fuel tank degradation for both the steel plate and the concrete below that that | rst issue is that there is one usted (Ref. CR-ANO-1-2012- r, there is significant is evident. All other items in |

the area appear to be free from potentially adverse seismic conditions.

| Evaluated by: | Roy Berryman Roy Bay | Date: | 10/10/2012 |
|---------------|----------------------|-------|------------|
| · | Michael E. Perez | | 10/10/2012 |

³ 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.

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Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) ____AWC-008 Location: Bldg. DSB Floor El. YARD Room, Area4 251 SWEL Components: SWEL1-014 (P-16B) **Photographs** Note: There is one anchor bolt supporting the Note: Significant degradation has been tank in the room that is slightly bent and is also observed on two anchor bolts supporting the not tightened fully. tank in the area. The degradation is evident in the steel plate below it.

⁴ 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.

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Status: YX N U

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Area Walk-By Checklist (AWC) <u>AWC-008</u> Location: Bldg. DSB Floor El. YARD Room, Areas 251



⁵ 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.

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|---|--|
| Sheet 1 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 009</u> | Status: Y⊠ N_ U_ |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Ro | om, Area ¹ <u>170 (Entire Room)</u> |
| SWEL Components: <u>SWEL1- 017 (PSV-2684)</u> | |
| Instructions for Completing Checklist This checklist may be used to document the results of th space below each of the following questions may be use Additional space is provided at the end of this checklist f | e Area Walk-By near one or more SWEL items. The d to record the results of judgments and findings. or documenting other comments. |
| Does anchorage of equipment in the area appear potentially adverse seismic conditions (if visible w opening cabinets)? Anchorage of equipment in the area appears to b adverse seismic conditions. | r to be free of YX NU UNA |
| 2. Does anchorage of equipment in the area appear significant degraded conditions? Anchorage of equipment in the area appears to b degraded conditions. | r to be free of $Y \boxtimes N \square U \square N/A \square$ |
| 3. Based on a visual inspection from the floor, do the raceways and HVAC ducting appear to be free of seismic conditions (e.g., condition of supports is conditions of cable trays appear to be inside according All rigid electrical conduit is adequately anchored the walls. Overhead piping and ducts appear to be | re cable/conduit Y N U N/A f potentially adverse adequate and fill eptable limits)? If to the overhead and be properly secured. |

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¹ 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.

| Engineering | Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 |
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| Shoot 2 of 5 | Page 45 of 152 |
| Area Walk-By Checklist (AWC) <u>AWC- 009</u> | Status: Y⊠ N⊡ U⊡ |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>170 (Entire R</u> | oom) |
| 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 area appears to be free of potentially adverse seismic spatial interactions with other equipment. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? The area appears to be free of potentially adverse seismic conditions. | |
| that could cause flooding or spray in the area. | |
| Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area. | Y⊠ N∐ U∐ N/AL |
| 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 area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | Y⊠ N□ U□ N/A□ |

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|---|--|
| Sheet 3 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 009</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area | 170 (Entire Room) |
| 8. Have you looked for and found no other seismic conditions the adversely affect the safety functions of the equipment in the <i>It was looked for, and no other seismic conditions that could affect the safety functions of the equipment in the area were</i> | hat could Y N IU |
| Commonte (Additional pages may be added as posssary) | |

<u>Comments</u> (Additional pages may be added as necessary)

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Room 170 was found to be in appropriate conditions. There was no issue with housekeeping practices and only mild surface oxidation was observed on the valves. The temperature in the room was high, but only due to the normal operating condition of the system.

| Evaluated by: <u>Genaro Barragan Jr.</u> | Date: | 10/9/2012 |
|--|-------|-----------|
| Eric Dilbone Eric Dec | | 10/9/2012 |

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 47 of 152 Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) __AWC-009_ Location: Bidg. RAB Floor El. 404 ____ Room, Area <u>170 (Entire Room)</u> SWEL Components: SWEL1-017 (PSV-2684) Photographs Note: General image of the anchorage in the Note: General image of the anchorage in the area. area.

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 48 of 152 Sheet 5 of 5 Status: YX N U Area Walk-By Checklist (AWC) <u>AWC-009</u> Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>170 (Entire Room)</u> SWEL Components: SWEL1-017 (PSV-2684) Note: This image shows the different valves in Note: This is a general image of the area. No housekeeping concerns were observed. the room.

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| Sheet 1 of 5 | Page 49 of 152 |
| Area Walk-By Checklist (AWC) <u>AWC- 010</u> | Status: YX N_ UL |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area ¹ <u>11</u> | |
| SWEL Components: <u>SWEL1-018 (CV-1432), 109 (E-35B), 03</u> | <u>3 (CV-1437)</u> |
| Instructions for Completing Checklist This checklist may be used to document the results of the Area Walk-E space below each of the following questions may be used to record the Additional space is provided at the end of this checklist for documentin | By near one or more SWEL items. The eresults of judgments and findings. In other comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necession opening cabinets)? Anchorage of equipment in the area appears to be free of poten adverse seismic conditions. | Y⊠ N⊡ U⊡ N/A⊡ arily ntially |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area appears to be free of signit degraded conditions. | Y⊠ N⊡ U⊡ N/A⊡ |
| 3. Based on a visual inspection from the floor, do the cable/conduraceways and HVAC ducting appear to be free of potentially ad seismic conditions (e.g., condition of supports is adequate and conditions of cable trays appear to be inside acceptable limits)? All rigid electrical conduit is adequately anchored to the overhe the walls. Overhead piping and ducts appear to be properly see | nit YX NU UNA Iverse fill ? vad and cured. |

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¹ 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.

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| Sheet 2 of 5 | |
|--|---------------|
| Area Walk-By Checklist (AWC) <u>AWC- 010</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>11</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)? | |
| There is one lighting fixture in the area, and it is properly secured and free from spatial interactions with other nearby equipment. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? The area appears to be free of potentially adverse seismic conditions 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? The area appears to be 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 area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | Y⊠ N□ U□ N/A□ |

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|---|--|
| Sheet 3 of 5 | Status: Y🛛 N |
| Area Walk-By Checklist (AWC) <u>AWC- 010</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>11</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? | YX NI UI |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. | |
| | |
| | |
| Comments (Additional pages may be added as necessary) | |
| Equipment in the area is found to be in adequate conditions. Anchorage concrete cracks. Cables and conduits are properly installed on walls scaffolding found in the area has an engineering-approved tag. Good throughout the room. Overall, all items in the area are free from seisn their safety functions. | is free from corrosion and and ceilings. The temporary I housekeeping is evident nic conditions that could affect |
| | |
| Evaluated by: Daniel Andon Hill Pl, | Date: <u>10/04/2012</u> |
| mal | |
| Michael E. Perez | 10/04/2012 |
| | |

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 Sheet 4 of 5

 Area Walk-By Checklist (AWC) _AWC-010_

 Location: Bldg. RAB
 Floor El. 317
 Room, Area 11

 SWEL Components: SWEL1-018 (CV-1432), 109 (E-35B), 033 (CV-1437)

 Photographs

 Note: Archorage in the area has been shown to be in proper conditions. No signs of corrosion and concrete cracking have been found.

 Note: Cables, conduits, and pipe supports in the area are shown to be properly secured.

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 53 of 152 Sheet 5 of 5 Status: YX N U Area Walk-By Checklist (AWC) <u>AWC-010</u> Location: Bldg. RAB Floor El. 317 Room, Area 11 SWEL Components: SWEL1- 018 (CV-1432), 109 (E-35B), 033 (CV-1437) Note: Temporary scaffolding in the area Note: appears to be properly secured and placed in the adequate location. It is also free from damaging any nearby equipment.

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| Sheet | 1 of 5 | | | | Ctatura | |
|-----------------------------|--|---|------------------------------------|---|---|------------------------------|
| Area | Walk-By Checkli | st (AWC) <u>AW</u> | <u>C- 011</u> | _ | Status: | |
| Locati | on: Bldg. <u>RAB</u> | Floor El. <u>31</u> | 7 | Room, Area ¹ <u>13</u> | | |
| SWEI | Components: | SWEL1- 019 (CV | /-1052) | ····· | | |
| Instru | ctions for Comple | ting Checklist | | | | |
| This cl space Additic | hecklist may be use below each of the onal space is provic | ed to document the following questions led at the end of th | e results s may be his check | of the Area Walk-By nea a used to record the resu list for documenting othe | r one or more S Its of judgments er comments. | WEL items. The and findings. |
| 1. | Does anchorage of potentially adverse opening cabinets) | of equipment in the e seismic conditior ? | e area ap ns (if visi | pear to be free of ble without necessarily | YX N | U N/A |
| | Anchorage of equ adverse seismic c | ipment in the area onditions. | appears | to be free of potentially | | |
| 2. | Does anchorage of significant degrad | of equipment in the ed conditions? | e area ap | ppear to be free of | Y⊠ N□ | |
| | Anchorage of equ degraded conditic | ipment in the area ns. | appears | to be free of significant | | |
| 3. | Based on a visual | inspection from th | ne floor, o | do the cable/conduit | Y⊠ N□ | U N/A |
| | seismic conditions | s (e.g., condition of | fsupport | is is adequate and fill | | |

conditions of cable trays appear to be inside acceptable limits)? All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured.

_

¹ 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.

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| Sheet 2 of 5 | |
|---|---------------------------------------|
| Area Walk-By Checklist (AWC) <u>AWC- 011</u> | Status: YX N U |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>13</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)? There several lighting fixtures in the area and they appear to be properly secured. | YX N UNA |
| 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 drain present in the room, making it highly unlikely that flooding would to occur 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area. | Y⊠ N□ U□ N/A□ |
| 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 area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | Y⊠ N∏ U∏ N/A∏ |

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| | Page 56 of 152 |
| Sheet 3 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 011</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area | 13 |
| Have you looked for and found no other seismic conditions t adversely affect the safety functions of the equipment in the | hat could YX N U |
| It was looked for, and no other seismic conditions that could affect the safety functions of the equipment in the area were | adversely found. |
| | |
| | |
| Comments (Additional pages may be added as necessary) | |
| Equipment in the area is found to be in adequate conditions concrete cracks. Cables and conduits are properly instal housekeeping is evident throughout the room. Overall, a conditions that could affect their safety functions. | . Anchorage is free from corrosion and led on walls and ceilings. Good I items in the area are free from seismic |
| | |
| Evaluated by: Daniel Andon Kill Al, | Date: <u>10/4/2012</u> |

Michael E. Perez

10/4/2012

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Status: Y🛛 N🗌 U

Area Walk-By Checklist (AWC) <u>AWC-011</u>

Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>13</u>

SWEL Components: SWEL1-019 (CV-1052)

Photographs



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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-011</u>

Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area <u>13</u>

SWEL Components: SWEL1-019 (CV-1052)



Note: Floor drains are present to the area in order to mitigate flooding hazards, if they were ever to occur. This would not be the case here since all equipment items in the area do not show signs that promote these hazards.



Note: Good housekeeping is evident in the area.

| | Attachment D Rev. 0 |
|--|--|
| | Page 59 of 152 |
| Sheet 1 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC-012</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>356</u> Room, Area ¹ <u>77 (Entire R</u> | <u>oom)</u> |
| SWEL Components: <u>SWEL1- 020(CV-2214), 021(CV-2233), 022(CV-2</u> 047(SV-2243B), 048(SV-2233A), 049(SV-2234B),106(T-208) | <u>234), 036(CV-2235),</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 Additional space is provided at the end of this checklist for documenting other c | ne or more SWEL items. The of judgments and findings. omments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? | YX NI UI N/AI |
| Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? | |
| Anchorage of equipment in the area appears to be free of 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)? <i>All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured.</i> | Y⊠ N□ U□ N/A□ |

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¹ 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.
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|--|---------------------------------|
| Sheet 2 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 012</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>356</u> Room, Area <u>77 (Entire Room)</u> | |
| 4. 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)? | |
| The area appears to be free of potentially adverse seismic spatial interactions with other equipment. | |
| 5. Does it appear that the area is free of potentially adverse seismic YXN UNANA interactions that could cause flooding or spray in the area? The area appears to be free of potentially adverse seismic conditions that could cause flooding or spray in the area. | |
| Does it appear that the area is free of potentially adverse seismic Y N□ U□ N/A□ interactions that could cause a fire in the area? The area appears to be 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 YX N UNA YX N UNA YX N UNA N/A No adverse conditions were observed related to housekeeping practices. | |
| practices. | |

| Engineering Report No. CALC-ANO1-CS-12-000 Attachment Rev Page 61 of 1 Sheet 3 of 5 Status: YX NUU | 02 t D r. 0 .52 |
|---|--------------------------|
| Area Walk-By Checklist (AWC) <u>AWC- 012</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>356</u> Room, Area <u>77 (Entire Room)</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? It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. Comments (Additional pages may be added as necessary) | |
| Evaluated by: Genaro Barragan Jr. Date: 10/03/12 | |
| Michael E. Perez 10/03/12 | |

Attachment D Rev. 0 Page 62 of 152 Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) __AWC- 012__ Location: Bldg. <u>RAB</u> Floor El. <u>356</u> Room, Area 77 (Entire Room) SWEL Components: SWEL1- 020(CV-2214), 021(CV-2233), 022(CV-2234), 036(CV-2235), 047(SV-2243B), 048(SV-2233A), 049(SV-2234B),106(T-208) Photographs Note: Feedwater Isolation Valve had a minor Note: Image of the area with rust colored leak. water from the feedwater valve overhead.

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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC- 012

Location: Bldg. <u>RAB</u> Floor El. <u>356</u> Room, Area <u>77 (Entire Room)</u>

SWEL Components: <u>SWEL1- 020(CV-2214), 021(CV-2233), 022(CV-2234), 036(CV-2235),</u> 047(SV-2243B), 048(SV-2233A), 049(SV-2234B),106(T-208)



| | Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 64 of 152 |
|---|--|
| Sheet 1 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 013</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> R | oom, Area¹ <u>46</u> |
| SWEL Components: <u>SWEL1- 024 (CV-2620)</u> | |
| Instructions for Completing Checklist This checklist may be used to document the results of space below each of the following questions may be us Additional space is provided at the end of this checklist | the Area Walk-By near one or more SWEL items. The sed to record the results of judgments and findings. for documenting other comments. |
| Does anchorage of equipment in the area appe potentially adverse seismic conditions (if visible opening cabinets)? Nearby support (PI-3812A) was observed to be bolts. CR-ANO-1-2012-01611 initiated. | ar to be free of Y N⊠ U N/A without necessarily missing two anchor |
| 2. Does anchorage of equipment in the area appe significant degraded conditions? Anchorage present appears to be in good cond | ar to be free of Y⊠ N⊡ U⊡ N/A⊡ ition. |
| Based on a visual inspection from the floor, do raceways and HVAC ducting appear to be free seismic conditions (e.g., condition of supports is conditions of cable trays appear to be inside ac HVAC in corner of room. Appears to be in gene | the cable/conduit YX NUN/A of potentially adverse s adequate and fill ceptable limits)? eral conformance. |

¹ 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.

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| Sheet 2 of 5 | |
|---|----------------|
| Area Walk-By Checklist (AWC) <u>AWC- 013</u> | Status: YX N U |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>46</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)? Lights observed may sway. However, they would impact piping insulation, absorbing the impact. Additionally, the piping is inherently rugged when compared to the light. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? <i>Floor drains present. No sources of flood or spray were observed.</i> | 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | Y⊠ N□ U□ N/A□ |
| 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)? No scaffolding present. Ladders observed to be secured. See image below. | Y⊠ N□ U□ N/A□ |

| Engineering | Report N | √o. CALC-A | NO1-CS-12- Attachn Page 66 | 00002 nent D Rev. 0 of 152 |
|---|-------------|-------------------|----------------------------------|-------------------------------------|
| Sheet 3 of 5 | Stat | us: Y🛛 I | | |
| Area waik-by Checklist (AwC) <u>AwC-015</u> | | | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>46</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? No other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. | YX N | · U | | |
| <u>Comments (</u> Additional pages may be added as necessary) Anchorage for support for Item PI-3812A was observed to be missing a b | polt. | | | |
| · · | | | | |
| Evaluated by: <u>Michael E. Perez</u> | Date: | <u>10/10/2012</u> | 2 | |
| Sean Smolarek Sem Smilt | | <u>10/10/2012</u> | 2 | |
| | | | | |

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Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) ____AWC- 013___ Location: Bldg. RAB Floor El. 335 Room, Area 46 SWEL Components: SWEL1-024 (CV-2620) Photographs Note: Ladder adequately secured. Note: General area overview.

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Note: Component with Support Missing

Status: YX N U Area Walk-By Checklist (AWC) _____AWC- 013 ____ Location: Bldg. RAB Floor El. 335 Room, Area 46 SWEL Components: SWEL1-024 (CV-2620)

Anchor Bolt

Sheet 5 of 5

Note: Support Missing Anchor Bolt

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|--|---|
| Sheet 1 of 4 | |
| Area Walk-By Checklist (AWC) <u>AWC- 014</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area ¹ <u>35 (Entire</u> | Room) |
| SWEL Components: <u>SWEL1- 026 (CV-2646)</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 | one or more SWEL items. The s of judgments and findings. comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | YN UU N/AU |
| 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area appears to be free of significant degraded conditions. | YX NO UO N/AO |
| 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)? All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured. | |

¹ 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.

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| Sheet 2 of 4 Area Walk-By Checklist (AWC) <u>AWC- 014</u> | Status: Y⊠ N⊟ U⊟ |
|---|------------------|
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>35 (Entire Ro</u> | oom) |
| 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)? | YX N UN N/A |
| Overhead fluorescent lighting was secured with chain supports. No open S hooks were observed. Nylon zip ties were present to take up excess chain. | |
| 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□ |
| The area appears to be free of potentially adverse seismic conditions that could cause flooding or spray in the area. | |
| 6. Does it appear that the area is free of potentially adverse seismic | Y⊠ N□ U□ N/A□ |
| The area appears to be 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)? | Y⊠ N□ U□ N/A□ |
| The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | |
| | |

| Engineerir | ng Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 71 of 152 |
|---|---|
| Sheet 3 of 4 Area Walk-By Checklist (AWC) <u>AWC- 014</u> | Status: Y⊠ N⊡ U⊡ |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>35 (Entire F</u> | Room) |
| 8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? <i>It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found.</i> | Y⊠ N□ U□ |
| <u>Comments</u> (Additional pages may be added as necessary) Room 35 was found to be in great housekeeping practices. Area was cl | ean and well organized. |
| | |
| Evaluated by: Genaro Barragan Jr. | Date: <u>10/9/2012</u> |
| Eric Dilbone Eric Dec | <u> </u> |
| | |

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Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 72 of 152 Sheet 4 of 4 Status: YX N U Area Walk-By Checklist (AWC) __AWC- 014_ Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area 35 (Entire Room) SWEL Components: SWEL1-026 (CV-2646) Photographs Note: Note: General image of the area. This room was exceptional in house-keeping practices.

| | Eng | tineering Report No. CALC-ANO1-CS-12-0000 Attachment Rev. Page 73 of 15 |
|--|---|--|
| Sheet 1 of 6 Area Walk-By Checklist (A) | WC) AWC- 015 | Status: YX N U |
| Location: Bldg. <u>RAB</u> F | | 5' Radius) |
| SWEL Components: SWEL | .1- 027 (CV-1407) | |
| Instructions for Completing C This checklist may be used to d space below each of the followin Additional space is provided at | hecklist ocument the results of the Area Walk-By ng questions may be used to record the n the end of this checklist for documenting o | near one or more SWEL items. The esults of judgments and findings. other comments. |
| Does anchorage of equi potentially adverse seisr opening cabinets)? Anchorage of equipmen adverse seismic condition | pment in the area appear to be free of nic conditions (if visible without necessari t in the area appears to be free of potentia ons. | Y⊠ N∏ U∏ N/A∏ ily ally |
| 2. Does anchorage of equi significant degraded cor Anchorage of equipmen degraded conditions. | pment in the area appear to be free of iditions? <i>t in the area appears to be free of significa</i> | Y⊠ N⊡ U⊡ N/A⊡ |
| Based on a visual insper raceways and HVAC du seismic conditions (e.g., conditions of cable trays HVAC ductwork is in good | ction from the floor, do the cable/conduit cting appear to be free of potentially adve condition of supports is adequate and fill appear to be inside acceptable limits)? od condition. | Y⊠ N∏ U∏ N/A∏ erse |

¹ 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.

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| Sheet 2 of 6 | |
|---|------------------|
| Area Walk-By Checklist (AWC) <u>AWC- 015</u> | Status: Y⊠ N_ U_ |
| Location: Bldg. <u>RAB</u> Floor El. <u>354</u> Room, Area <u>63</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)? Open S-hooks on light over 1A3-1101 next to GCH-43. Open S-hooks were observed above cabinet C115. This must be corrected to meet the IPEEE commitments. CR-ANO-1-2012-01613 initiated. | 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? Fire Piping is present. Drains are on the adjacent concrete, but grating is below the component such that any water released would flow down to the lower levels. | 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | Y⊠ N∏ U∏ N/A∏ |
| 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)? Ladder was secured. Computer stored nearby, but could not fall onto safety related equipment. | Y⊠ N∏ U∏ N/A∏ |

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| Sheet 3 of 6 | |
|---|-------------------------|
| Area Walk-By Checklist (AWC) <u>AWC- 015</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>354</u> Room, Area <u>63</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? <i>It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found.</i> | Y⊠ N□ U□ |
| <u>Comments</u> (Additional pages may be added as necessary) Seismic block walls (6-B-45 and 6-B-49) were observed in the area. | |
| Evaluated by: <u>Michael E. Perez</u> | Date: <u>10/10/2012</u> |
| Sean Smolarek | 10/10/2012 |

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Sheet 4 of 6

Status: YX N U

Area Walk-By Checklist (AWC) ____AWC- 015___

Location: Bldg. RAB Floor El. 354 Room, Area 63

SWEL Components: SWEL1-027 (CV-1407)

Photographs



Note: There appear to be some open S-hooks on some of the lighting fixtures in the area.

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Sheet 5 of 6

Area Walk-By Checklist (AWC) _AWC-015_

Location: Bldg. RAB

Floor El. 354

Room, Area 63

SWEL Components: SWEL1- 027 (CV-1407)

Image: Components: SWEL1- 027 (CV-1407)</t

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Sheet 6 of 6

Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC- 015</u>

Location: Bldg. <u>RAB</u> Floor El. <u>354</u> Room, Area <u>63</u>

SWEL Components: SWEL1-027 (CV-1407)



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|---|--|
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| Sheet 1 of 5 | Status: VX NI LI |
| Area Walk-By Checklist (AWC) <u>AWC- 016</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area ¹ <u>94</u> | |
| SWEL Components: <u>SWEL1- 028 (CV-1300)</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 result Additional space is provided at the end of this checklist for documenting other | one or more SWEL items. The s of judgments and findings. comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? No adverse seismic conditions were observed in anchorage | |
| 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? No significant degraded conditions were observed in the area | Y⊠ N□ U□ N/A□ |
| 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)? HVAC and conduit appear to be in good condition | YX NI UI N/AI |

¹ 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.

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|---|--|---|---------------------|
| Sneet 2 of 5 | | | Status: Y🛛 N 🗌 U |
| Area Walk-By Checkli | st (AWC) <u>AWC- 0</u> | <u>16</u> | |
| Location: Bldg. <u>RAB</u> | Floor El. <u>372</u> | Room, Area <u>94</u> | |
| Does it appear that spatial interactions and lighting)? | t the area is free of pot with other equipment i | entially adverse seismic in the area (e.g., ceiling tile: | Y⊠ N□ U□ N/A□ s |
| An open S-hook w would fall to a Uni | as observed. However, strut support. | , if this light were to fall, it | |
| 5. Does it appear that interactions that cr | t the area is free of pot ould cause flooding or s | entially adverse seismic spray in the area? | |
| No fire piping obse | erved. | | |
| Does it appear the interactions that c | t the area is free of pot ould cause a fire in the | entially adverse seismic area? | |
| No sources of fire | were observed. | | |
| Does it appear than interactions assoct portable equipments shielding)? | it the area is free of pot iated with housekeepin it, and temporary instal | entially adverse seismic g practices, storage of lations (e.g., scaffolding, le | Y⊠ N□ U□ N/A□ ad |
| No temporary inst | allations were observed | 1. | |

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|---|--|
| Sheet 3 of 5 | Page 81 01 152 |
| Area Walk-By Checklist (AWC) <u>AWC- 016</u> | Status: YX N U |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>94</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? No other adverse seismic conditions were observed | YX NI UI |
| | |
| Comments (Additional pages may be added as necessary) | |
| | |
| Evaluated by: Michael Perez | Date: <u>10/10/2012</u> |
| Sean Smolarek Sun Such | 10/10/2012 |
| | |

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Sheet 4 of 5 Area Walk-By Checklist (AWC) _AWC-016_ Location: Bldg. RAB ______ Flor El. 372 ______ Room, Area 94________ SWEL Components: SWEL1-028 (CV-1300) Photographs Image: Component in the image: CV-1300 in the image

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 83 of 152 Sheet 5 of 5 Status: YX N U Area Walk-By Checklist (AWC) ____AWC-016___ Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>94</u> SWEL Components: SWEL1- 028 (CV-1300) Note: Observe anchorage in good condition Note: Observe overhead

| | Engi | neering Report No. CALC-ANO1-CS-12-00002 Attachment E Rev. 0 Page 84 of 152 |
|---|---|--|
| Sheet 1 of 4 Area Walk-By Checklist (AWC) | AWC-017 | Status: Y⊠ N⊡ U⊡ |
| Location: Bldg. <u>RAB</u> Floor El. | <u>360</u> Room, Area ¹ <u>79 (En</u> | tire Room) |
| SWEL Components: <u>SWEL1- 029</u> | (CV-1220), 042 (CV-1206), 051 | (SV-1818), 034 (1227) |
| Instructions for Completing Checklis This checklist may be used to documen space below each of the following ques Additional space is provided at the end | it It the results of the Area Walk-By n Itions may be used to record the re of this checklist for documenting o | ear one or more SWEL items. The sults of judgments and findings. ther comments. |
| Does anchorage of equipment in potentially adverse seismic cond opening cabinets)? Anchorage of equipment in the a adverse seismic conditions. | n the area appear to be free of ditions (if visible without necessarily area appears to be free of potential | Y⊠ N□ U□ N/A□ / // |
| 2. Does anchorage of equipment in significant degraded conditions? Anchorage of equipment in the a degraded conditions. | n the area appear to be free of , area appears to be free of significa | Y⊠ N∏ U∏ N/A∏ nt |
| 3. Based on a visual inspection fro raceways and HVAC ducting ap seismic conditions (e.g., condition conditions of cable trays appear <i>All rigid electrical conduit is ade</i> <i>the walls. Overhead piping and</i> | Im the floor, do the cable/conduit pear to be free of potentially adver on of supports is adequate and fill to be inside acceptable limits)? quately anchored to the overhead ducts appear to be properly secure | Y⊠ N⊡ U⊡ N/A⊡ se and ed. |

¹ 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.

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| Sheet | 2 of 4 | Page 85 of 152 |
| Area | Walk-By Checklist (AWC) <u>AWC- 017</u> | Status: YX N U |
| Locatio | on: Bldg. <u>RAB</u> Floor El. <u>360</u> Room, Area <u>79</u> | (Entire Room) |
| 4. | Does it appear that the area is free of potentially adverse seism spatial interactions with other equipment in the area (e.g., ceilin and lighting)? | nic Y N⊠ U N/A ng tiles |
| | Light above CV-1206 has an open S-hook. This hook must be meet an IPEEE commitment. CR-ANO-1-2012-01613 initiated. | closed to |
| 5. | Does it appear that the area is free of potentially adverse seism interactions that could cause flooding or spray in the area? The area appears to be free of potentially adverse seismic cont that could cause flooding or spray in the area. | nic Y⊠ N⊡ U⊡ N/A⊡ ditions |
| 6. | Does it appear that the area is free of potentially adverse seism interactions that could cause a fire in the area? The area appears to be free of potentially adverse seismic inter that could cause a fire in the area. | nic Y⊠ N⊡ U⊡ N/A⊡ ractions |
| 7. | Does it appear that the area is free of potentially adverse seisn interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffoldin shielding)? The area appears to be free of potentially adverse seismic inter associated with housekeeping practices, storage of portable ec- and temporary installations. | nic YX N UNA f ng, lead ractions quipment, |

| Engineering Sheet 3 of 4 | Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 86 of 152 |
|---|--|
| Area Walk-By Checklist (AWC) <u>AWC- 017</u> | Status: Y⊠ N_ U_ |
| Location: Bldg. <u>RAB</u> Floor El. <u>360</u> Room, Area <u>79 (Entire Ro</u> | pom) |
| 8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? <i>It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found.</i> | YX NO UO |
| <u>Comments</u> (Additional pages may be added as necessary) | ne area is in annronriate |
| condition. | |
| Evaluated by: <u>Genaro Barragan Jr.</u> | Date: <u>10/9/2012</u> |
| Eric Dilbone Eric Dec | 10/9/2012 |
| | |

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| Sheet 4 of 4 | |
| Area Walk-By Checklist (AWC) <u>AWC- 017</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>360</u> R | Room, Area <u>79 (Entire Room)</u> |
| SWEL Components: <u>SWEL1- 029 (CV-1220), 04</u> | <u>42 (CV-1206), 051 (SV-1818), 034 (1227)</u> |
| Photographs | ······································ |
| | |
| Note: Light above CV-1206 has an open S-hook. | Note: |

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| Shoot 1 of 7 | Page 88 of 152 |
| | Status: Y🛛 N 🗌 U |
| Area Walk-By Checklist (AWC) <u>AWC- 018</u> | |
| Location: Bldg. <u>INTAKE</u> Floor El. <u>354</u> Room, Area¹ <u>241(I</u> <u>BLDG</u> | Entire Room) |
| SWEL Components: <u>SWEL1- 040 (CV-3646)</u> | |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Area Walk-By space below each of the following questions may be used to record the read ditional space is provided at the end of this checklist for documenting | r near one or more SWEL items. The results of judgments and findings. other comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessar opening cabinets)? No adverse anchorage conditions were observed in the area | Y⊠ N⊡ U⊡ N/A⊡ rily |
| 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Minor corrosion was identified in the lower level on several components. The conduits attached to the WEST wall (near the t had minor corrosion. Also in the lower level, the anchorage for component HBD-14-H49 had signs of minor corrosion. See imag Sheet 4. | Y⊠ N□ U□ N/A□ floor) res in |
| 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 fil conditions of cable trays appear to be inside acceptable limits)? No adverse seismic conditions were observed for cable/conduit raceways and HVAC. | Y⊠ N⊡ U⊡ N/A⊡ erse II |

¹ 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.

| E | ngineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 |
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| Sheet 2 of 7 | Page 89 01 152 |
| Area Walk-By Checklist (AWC) <u>AWC- 018</u> | Status: YX NU U |
| Location: Bldg. <u>INTAKE</u> Floor El. <u>354</u> Room, Area <u>243</u> <u>BLDG</u> | 1(Entire Room) |
| 4. Does it appear that the area is free of potentially adverse seism spatial interactions with other equipment in the area (e.g., ceilin and lighting)? | nic Y⊠ N∏ U∏ N/A∏ ig tiles |
| There is no other equipment in the area that could cause poten adverse seismic spatial interactions. | tially |
| 5. Does it appear that the area is free of potentially adverse seism interactions that could cause flooding or spray in the area? Located in the intake structure. Water is present below the stru and within components in the structure. These do not represen credible sources. | nic Y⊠ N⊡ U⊡ N/A⊡ cture nt |
| 6. Does it appear that the area is free of potentially adverse seism interactions that could cause a fire in the area? Area heaters were observed to be approximately 6 ft above the No sources of ignition were present | nic Y⊠ N⊡ U⊡ N/A⊡ e slab. |
| 7. Does it appear that the area is free of potentially adverse seism interactions associated with housekeeping practices, storage o portable equipment, and temporary installations (e.g., scaffoldir shielding)? No conditions were observed | nic Y⊠ N⊡ U⊡ N/A⊡ f ng, lead |

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|---|---|
| Sheet 3 of 7 Area Walk-By Checklist (AWC) <u>AWC- 018</u> | Status: Y⊠ N∏ U∏ |
| Location: Bldg. <u>INTAKE</u> Floor El. <u>354</u> Room, Area <u>241(Entire</u> <u>BLDG</u> | <u>Room)</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? No other seismic conditions were observed | YX NI UI |

Comments (Additional pages may be added as necessary)

Two components in the lower level of the intake building were found to have minor issues with corrosion. The anchorage for the conduit on the WEST wall near the floor was corroded. Also, the anchorage for equipment item HBD-14-H49 had corrosion. The corroded anchorages for the conduit and equipment item HBD-14-H49 are believed to not be a current seismic concern.

The light in the upper level of the intake building near P-4A service water pump contained an open S-hook.

| Evaluated by: Genaro Barragan Jr. | Date: | 10/9/2012 | |
|-----------------------------------|----------|-----------|--|
| Eric Dilbone Erin Der | <u> </u> | 10/9/2012 | |

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 91 of 152 Sheet 4 of 7 Status: YX N U Area Walk-By Checklist (AWC) ____AWC- 018 Location: Bldg. INTAKE Room, Area 241(Entire Room) Floor El. <u>354</u> BLDG SWEL Components: SWEL1-046 (CV-3646) **Photographs** Note: This image shows the conduits Note: The anchorage for component anchored to the WEST wall near the floor. It is HBD-14-H49 had signs of corrosion. This item evident through this image that there is a is found in the lower level of the intake corrosion issue on this anchorage. This conduit building. is found in the lower level of the intake

building.

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Sheet 5 of 7

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC- 018___

Location: Bldg. <u>INTAKE</u> Floor El. <u>354</u> Room, Area <u>241(Entire Room)</u> BLDG

SWEL Components: SWEL1- 046 (CV-3646)



Note: General image of the lower level. All other anchorage in the area was identified to be free of potentially adverse seismic conditions.



intake building. Area was free of adverse seismic conditions associated with housekeeping practices. Room was clean and well maintained.

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 Sheet 6 of 7
 Status: Y N U

 Area Walk-By Checklist (AWC) <u>AWC-018</u>
 Status: Y N U

 Location: Bldg. <u>INTAKE BLDG</u>
 Floor El. <u>354</u>

 Room, Area <u>241(Entire Room)</u>
 SWEL Components: <u>SWEL1-046 (CV-3646)</u>



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Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-018</u>

Location: Bldg. <u>INTAKE</u> Floor El. <u>354</u> Room, Area <u>241(Entire Room)</u> <u>BLDG</u>

SWEL Components: SWEL1-046 (CV-3646)



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| Area Walk-By Checklist (AWC) <u>AWC-019</u> |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area ¹ <u>34 (Entire Room)</u> |
| SWEL Components: <u>SWEL1- 041 (CV-3850), 044 (CV-3851)</u> |
| Instructions for Completing Checklist |
| This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. 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. |
| 1. Does anchorage of equipment in the area appear to be free of YX NU VNA potentially adverse seismic conditions (if visible without necessarily opening cabinets)? |
| Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. |
| 2. Does anchorage of equipment in the area appear to be free of YX N U N/A significant degraded conditions? |
| Anchorage of equipment in the area appears to be free of significant degraded conditions. |
| 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)? All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured. |

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¹ 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.
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|---|---|
| Sheet 2 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 019</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> Room, Area <u>34 (Entire F</u> | 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)? | |
| There was a light near valve CV-3851 & CV-3050 (right around the corner-SOUTH) that was attached with zip-ties. There was also a free rigid support on the ceiling, as well as a miscellaneous rod coming out of the ceiling (discovered near the entrance to room 34). Lighting appeared to have closed s-hooks in all observed cases. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | |
| The area appears to be free of potentially adverse seismic conditions that could cause flooding or spray in the area. | |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? The area appears to be 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)? | YX N U N/A |
| The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment and temporary installations. | <i>t</i> , |

| | Engineering | Report No. CALC-ANO1-CS-12-00002 Attachment D |
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| Sheet 3 of 5 | : | |
| Area Walk-By Checklist (AWC) <u>AWC- 01</u> | 19 | |
| Location: Bldg. <u>RAB</u> Floor El. <u>335</u> | Room, Area <u>34 (Entire Ro</u> | <u>oom)</u> |
| Have you looked for and found no other s adversely affect the safety functions of the It was looked for, and no other seismic co affect the safety functions of the equipment | eismic conditions that could e equipment in the area? Inditions that could adversely int in the area were found. | Y N U |
| | | |
| <u>Comments (Additional pages may be added as r</u> | necessary) ¦ | |
| To summarize the findings in this room: | | |
| Eight attached with zip-ues near s Free rigid support hanging from c | eiling | |
| See images below. | | |
| Evaluated by: <u>Genaro Barragan Jr.</u> | | Date: <u>10/9/2012</u> |
| Eric Dilbone Eric Dec | | 10/9/2012 |
| | · · · · · · · · · · · · · · · · · · · | |

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Status: YX N U

Area Walk-By Checklist (AWC) AWC-019

Location: Bldg. RAB Floor El. 335 Room, Area 34 (Entire Room)

SWEL Components: SWEL1- 041 (CV-3850), 044 (CV-3851)

Photographs



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| Sheet 1 01 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 02</u> | 20 |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> | Room, Area ¹ 258 |
| SWEL Components: SWEL1-052 (VEF-24 | A) |
| Instructions for Completing Checklist | |
| This checklist may be used to document the resu space below each of the following questions may Additional space is provided at the end of this che | Its of the Area Walk-By near one or more SWEL items. The be used to record the results of judgments and findings. ecklist for documenting other comments. |
| Does anchorage of equipment in the area potentially adverse seismic conditions (if v opening cabinets)? | appear to be free of YXN UNA visible without necessarily |
| No adverse seismic conditions were obse | rved. |
| Does anchorage of equipment in the area significant degraded conditions? | appear to be free of YX NI UI N/AI |
| Mild cracks and spalling concrete was ob- the exhaust pipe. This is judged not to be as the conditions are minor. | served at the opening around an adverse seismic condition |
| 3. Based on a visual inspection from the floor raceways and HVAC ducting appear to be seismic conditions (e.g., condition of supp conditions of cable trays appear to be insi <i>Conduits appear to be adequately suppor</i> <i>above appear to be in good condition.</i> | or, do the cable/conduit Y N U N/A e free of potentially adverse borts is adequate and fill ide acceptable limits)? ted. Steel supports for grating |

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¹ 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.

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| | Status: Y🛛 N 🗌 U |
| Area Walk-By Checklist (AWC) <u>AWC- 020</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>258</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∐ |
| No adverse seismic spatial interactions were observed. | |
| | |
| | |
| 5. Does it appear that the area is free of potentially adverse seismic | Y⊠ N□ U□ N/A□ |
| No source of flooding was observed. A floor drain was observed in the | |
| vicinity. | |
| | |
| | |
| 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∏ |
| No credible sources of fire located within the area. | |
| | |
| | |
| | |
| interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | |
| No adverse seismic interactions associated with temporary installations were identified. | |
| | |
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|---|--|------------------------------|
| Sheet 3 of 5 | Status: YX N U | |
| Area Walk-By Checklist (AWC) <u>AWC- 020</u> | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>258</u> | | |
| Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? No other adverse seismic conditions were observed. | YX NI UI | |
| | | |
| | | |
| | | |
| Comments (Additional pages may be added as necessary) | | |
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| | | |
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| | | |
| Evaluated by: Daniel Andon Kill Al, | Date: <u>10/10/2012</u> | |
| 1 Promo | | |
| <u>Genaro Barragan Jr.</u> | 10/10/2012 | |

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| Sheet 1 of 4 | |
| Area Walk-By Checklist (AWC) <u>AWC- 021</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> | Room, Area ¹ <u>95</u> |
| SWEL Components: <u>SWEL1- 059 (RA-2)</u> | |
| Instructions for Completing Checklist This checklist may be used to document the results of space below each of the following questions may be Additional space is provided at the end of this checkling | of the Area Walk-By near one or more SWEL items. The used to record the results of judgments and findings. list for documenting other comments. |
| Does anchorage of equipment in the area appropriate potentially adverse seismic conditions (if visite opening cabinets)? Anchorage of equipment in the area appears adverse seismic conditions. | ppear to be free of YX NU UNA ble without necessarily to be free of potentially |
| 2. Does anchorage of equipment in the area app significant degraded conditions? Anchorage of equipment in the area appears degraded conditions. | Spear to be free of $Y \boxtimes N \square U \square N/A \square$ So to be free of significant |
| 3. Based on a visual inspection from the floor, d raceways and HVAC ducting appear to be fre seismic conditions (e.g., condition of supports conditions of cable trays appear to be inside a <i>All rigid electrical conduit is adequately ancho</i> <i>the walls. Overhead piping and ducts appear</i> | do the cable/conduit YXN UNA |

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¹ 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.

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| Sheet 2 of 4 | |
|---|---------------|
| Area Walk-By Checklist (AWC) <u>AWC- 021</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>95</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)? There were no ceiling tiles in the room, and lighting is supported with | |
| chains and closed S-hooks. | |
| Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? It was observed that there was a room cooler mounted overhead in the room. The room cooler has chilled water running through it, and | Y N N U N/A |
| contains a drip pan and drain line to a floor drain. | |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? The area appears to be free of potentially adverse seismic interactions | YX N U U N/A |
| 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)? The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, | Y⊠ N∏ U∏ N/A∏ |
| and temporary installations. | |

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| Sheet 3 of 4 | Status: VM ND UD |
|--|------------------|
| Area Walk-By Checklist (AWC) <u>AWC- 021</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>95</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? | YX NI UI |
| It was looked for, and there no other seismic conditions that could adversely affect the safety functions of the equipment in the area were | |

Comments (Additional pages may be added as necessary)

| Evaluated by: Daniel Parker David R R | Date: | 10/11/2012 |
|---------------------------------------|-------|------------|
| Eric Dilbone Eric Decen | | 10/11/2012 |

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Sheet 4 of 4 Status: YX N U Area Walk-By Checklist (AWC) ____AWC-021___ Room, Area 95 Location: Bldg. RAB Floor El. <u>372</u> SWEL Components: SWEL1-059 (RA-2) Photographs EC2+785 **O** O Note: View of panel RA-2 in Room 95. Note: View of cables and conduit in the overhead.

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| | Rev. 0 Page 109 of 152 |
| Sheet 1 of 5 | Status: Y⊠ N⊡ U⊡ |
| Area Walk-By Checklist (AWC) <u>AWC- 022</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area ¹ <u>110</u> | |
| SWEL Components: <u>SWEL1- 060 (D-07)</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 result Additional space is provided at the end of this checklist for documenting other | one or more SWEL items. The s of judgments and findings. r comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Conduit supports on walls appear to be adequate and in good condition. | Y⊠ N□ U□ N/A□ |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? No degraded conditions were observed in the anchorages. | 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)? HVAC and conduit supports including light supports appear to be adequate and in good condition. | Y⊠ N∏ U∏ N/A∏ |

¹ 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.

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|--|---|
| Sheet 3 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 022</u> | Status: YX N U |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area | 110 |
| Have you looked for and found no other seismic conditions the adversely affect the safety functions of the equipment in the No other adverse seismic conditions were observed. | nat could Y⊠ N⊡ U⊡ area? |
| <u>Comments</u> (Additional pages may be added as necessary) No adverse seismic conditions were observed. | |
| | |
| Evaluated by: Daniel Andoh Kill Pl | Date: <u>10/16/2012</u> |
| Genaro Barragan Jr. | <u>10/16/2012</u> |
| | |

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 112 of 152 Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) _____AWC- 022 Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area 110 SWEL Components: SWEL1-060 (D-07) **Photographs** Note: Overhead HVAC and conduit supports. Note: Overhead HVAC and conduit supports.

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Sheet 5 of 5

Area Walk-By Checklist (AWC) _AWC- 022_______

Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>110</u>_______

SWEL Components: <u>SWEL1- 060 (D-07)</u>

Image: Area walk-By Checklist (AWC) _______

Note: HVAC steel supports.

Note: Conduit supports.

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|---|--|
| Sheet 1 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 023</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area ¹ <u>98</u> | |
| SWEL Components: SWEL1- 070 (D14) | |
| 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 | one or more SWEL items. The of judgments and findings. comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? No significant degraded conditions were observed. | 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)? Cable trays were observed to have adequate fill, and were properly supported. HVAC ducts and conduits appeared to be adequately supported. | Y⊠ N□ U□ N/A□ |

¹ 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.

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| Sheet 2 of 5 | Page 115 of 1 |
| Area Walk-By Checklist (AWC) AWC- 023 | Status: Y🛛 N 🗌 U 🗌 |
| Location: Bldg. <i>RAB</i> Floor El. 372 Room, Area <u>98</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)? No adverse seismic spatial interactions were observed. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? No flooding or spray sources were observed 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | 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 area is free of potentially adverse asigmic interactions associated | Y⊠ N□ U□ N/A□ |
| with housekeeping practices, storage of portable equipment and temporary installations. | |

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|--|---|
| Sheet 3 of 5 Area Walk-By Checklist (AWC) <u>AWC- 023</u> | Status: Y⊠ N∏ U∏ |
| Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>98</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? No other adverse seismic conditions were observed. | YX N U |
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| <u>Comments</u> (Additional pages may be added as necessary) | |
| <u>Comments</u> (Additional pages may be added as necessary) | |
| <u>Comments (</u> Additional pages may be added as necessary) | |
| Comments (Additional pages may be added as necessary) | Date: <u>10/10/2012</u> |

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Sheet 4 of 5

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC- 023___

Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>98</u>

SWEL Components: SWEL1-070 (D14)

Photographs



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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC- 023</u>

Location: Bldg. <u>RAB</u> Floor El. <u>372</u> Room, Area <u>98</u>

SWEL Components: SWEL1-070 (D14)





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| Sheet 1 of 4 |
| Area Walk-By Checklist (AWC) <u>AWC-024</u> |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area ¹ <u>144 (Entire Room)</u> |
| SWEL Components: <u>SWEL1- 071 (PT-2667A)</u> |
| Instructions for Completing Checklist |
| This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. 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. |
| 1. Does anchorage of equipment in the area appear to be free of YXN UNA potentially adverse seismic conditions (if visible without necessarily opening cabinets)? |
| Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. |
| 2. Does anchorage of equipment in the area appear to be free of YX N UN/A significant degraded conditions? |
| Anchorage of equipment in the area appears to be free of 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)? All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured. |

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¹ 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.

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| Sheet 2 of 4 | Page 120 of 152 |
| Area Walk-By Checklist (AWC) <u>AWC- 024</u> | Status: Y⊠ N□ U□ |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>144 (Entire F</u> | 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)? | |
| The area is free of potentially adverse seismic spatial interactions with other equipment in the area. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | |
| The area appears to be free of potentially adverse seismic conditions that could cause flooding or spray in the area. | |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | |
| The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area. | |
| 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 area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | |
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| Sheet 3 of 4 | C C |
| | Status: Y🔀 N🗌 U🗌 |
| Area Walk-By Checklist (AWC) <u>AWC- 024</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>144 (Er</u> | ntire Room) |
| 8. Have you looked for and found no other seismic conditions that cou adversely affect the safety functions of the equipment in the area? | |
| affect the safety functions of the equipment in the area were found. | |
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| Comments (Additional pages may be added as necessary) | |
| Equipment in the area appeared to be well anchored. Room was a equipment in the area was located using a flashlight. All compor conditions. | dark, but the anchorage of the nents appeared to be in appropriate |
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| Evaluated by: Genaro Barragan Jr. | Date: 10/9/2012 |
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| Eric Dilbone Eric Dec | 10/9/2012 |
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Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 122 of 152 Sheet 4 of 4 Status: YX N U Area Walk-By Checklist (AWC) _____AWC- 024 Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area 144 (Entire Room) SWEL Components: SWEL1-071 (PT-2667A) Photographs Note: Anchorage of the equipment in the area Note: Close up view of anchorage. appears to be free of degraded conditions.

| | Attachment D Rev. 0 |
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| Shoot 1 of 5 | Page 123 of 152 |
| Area Walk-By Checklist (AWC) <u>AWC- 025</u> | Status: YX N U |
| Location: Bldg. <u>RAB</u> Floor El. <u>374</u> Room, Area ¹ <u>96</u> | |
| SWEL Components: <u>SWEL1- 094 (LY-1411A)</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 | e or more SWEL items. The judgments and findings. mments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? All of the electrical cabinets within the room appeared to be adequately anchored to the floor and did not appear to pose a hazard during a seismic event. | |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area appears 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)? <i>All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured.</i> | Y⊠ N∏ U∏ N/A∏ |

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¹ 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.

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| Sheet 2 of 5 Area Walk-By Checklist (AWC) <u>AWC- 025</u> | Status: Y⊠ N□ U□ |
|---|------------------|
| Location: Bldg. <u>RAB</u> Floor El. <u>374</u> Room, Area ² <u>96</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)? | |
| The area is free of potential adverse spatial interactions. Lighting over safety-related equipment is mounted on unistrut. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | YX N U N/A |
| A fire water system was observed and appeared to be installed to meet plant specifications. | |
| A fire extinguisher was supported on a typical wall mount that was observed throughout the plant. During a seismic event it may bounce of the support and fall to the floor but it was judged to not be a significant hazard during a seismic event. | |
| 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□ |
| The area appears to be 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)? | Y⊠ N□ U□ N/A□ |
| The area was part of the protected train during the time of the inspection so there was no equipment or tools in the area that would represent a seismic hazard. | |
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² 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.

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| | Page 125 of 1 | 52 |
| Sheet 3 of 5 | Status: Y⊠ N□ U□ | |
| Area Walk-By Checklist (AWC) <u>AWC- 025</u> | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>374</u> Room, Area ³ <u>96</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? | YN N U | |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. | | |
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| Comments (Additional pages may be added as necessary) | | |
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| Evaluated by: Daniel Parker | Date: <u>10/10/2012</u> | |
| Eric Dilbone Erin Decen | 10/10/2012 | |
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³ 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.

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 126 of 152 Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) ____AWC- 025___ Floor El. <u>374</u> Location: Bldg. RAB Room, Area4 96 SWEL Components: SWEL1- 094 (LY-1411A) Photographs 6543 BAY B Note: Cabinet containing LY-1411A. Note: Row of cabinets in Room 96.

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⁴ 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.

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Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-025</u>

Location: Bldg. <u>RAB</u> Floor El. <u>374</u> Room, Area⁵ <u>96</u>

SWEL Components: SWEL1- 094 (LY-1411A)



⁵ 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.

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| Sheet 1 of 5 | |
| Area Walk-By Checklist (AWC) <u>AWC- 026</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area ¹ <u>129</u> | |
| SWEL Components: <u>SWEL1- 058(RS-2), 078(C10), 080(PB-014</u> <u>088(PWR-2406), 089(C14), 090(C42), 091(C44), 092(C26), 097(F</u> <u>1139), 100(LIS-1421)</u> | 14), 085(C88), 086(C89), 087(C90), PB-2670), 098(SS-1220), 099(TR- |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of the Area Walk-By space below each of the following questions may be used to record the r Additional space is provided at the end of this checklist for documenting | near one or more SWEL items. The results of judgments and findings. other comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessar opening cabinets)? | Y⊠ N∏ U∏ N/A∏ ily |
| Anchorage of equipment in the area appears to be free of potenti adverse seismic conditions. | ially |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage in the area appears to be free of 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)? Based on visual inspection from the floor, the cable/conduit racew and HVAC ducting appear to be free of potentially adverse seismic conditions. | Y⊠ N∏ U∏ N/A∏ erse I ways nic |

¹ 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.

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| Sheet 2 of 5 | Status: Y⊠ N⊡ U⊡ |
| Area Walk-By Checklist (AWC) <u>AWC- 026</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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)? The lighting in the room is all secure, and ceiling tiles are in good condition as well. | 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 are no apparent potentially adverse seismic interacitons in the area that could cause spray. Additionally, there are floor drains in the floor to mitigate effects of any spills that may occur. | 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | 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)? It was observed that there are four emergency respiratory protection boxes stored behind cabinet C26. Though they do not present a potentially adverse seismic interaciton effect to safety-related equipment, they may fall and impede walkways since they are not secured. | Y 🔀 N 🗌 U 🗌 N/A 🗍 |

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| Area Walk-By Checklist (AWC) <u>AWC- 026</u> | Status: | | |
| Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Room, Area <u>129</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? <i>It was looked for and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found.</i> | YX N | U 🗌 | |
| Commonts (Additional pages may be added as pecessan) | | | |
| | | ., . | |
| It was observed that there is a cart as well as a ladder stored behind cab items are secured to the wall. | inet C26, hou | wever, these two | |
| Evaluated by: Roy Berryman | Date: <u>10/4</u> | 1/2012 | |
| Eric Dilbone Eric Decen | <u> </u> | //2012 | |
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Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-026</u>

Location: Bldg. <u>RAB</u> Floor El. <u>386</u> Roo/m, Area² <u>129</u>

SWEL Components: <u>SWEL1- 058(RS-2), 078(C10), 080(PB-0144), 085(C88), 086(C89), 087(C90),</u> <u>088(PWR-2406), 089(C14), 090(C42), 091(C44), 092(C26), 097(PB-2670), 098(SS-1220), 099(TR-1139), 100(LIS-1421)</u>

Photographs



² 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.
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Status: YX N U

Area Walk-By Checklist (AWC) __AWC-026

Location: Bldg. RAB Floor El. 386 Room, Area3 129

SWEL Components: <u>SWEL1- 058(RS-2), 078(C10), 080(PB-0144), 085(C88), 086(C89), 087(C90),</u> <u>088(PWR-2406), 089(C14), 090(C42), 091(C44), 092(C26), 097(PB-2670), 098(SS-1220), 099(TR-1139), 100(LIS-1421)</u>



³ 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.

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| Area Walk-By Checklist (AWC) AWC- 027 | Status: YX N U |
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| <u>225B)</u> | [PS-5284), 077(15-7904), 068(5E-5220), 066(M- |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of t space below each of the following questions may be us Additional space is provided at the end of this checklist | the Area Walk-By near one or more SWEL items. The sed to record the results of judgments and findings. for documenting other comments. |
| Does anchorage of equipment in the area appear potentially adverse seismic conditions (if visible opening cabinets)? Anchorage of equipment in the area appears to adverse seismic conditions. | ar to be free of Y⊠ N□ U□ N/A□ without necessarily be free of potentially |
| Does anchorage of equipment in the area appears significant degraded conditions? Anchorage of equipment in the area appears to degraded conditions. | ar to be free of YX N UNA |
| 3. Based on a visual inspection from the floor, do t raceways and HVAC ducting appear to be free seismic conditions (e.g., condition of supports is conditions of cable trays appear to be inside acc <i>All rigid electrical conduit is adequately anchore</i> <i>the walls. Overhead piping and ducts appear to</i> | the cable/conduit Y N U N/A of potentially adverse a adequate and fill ceptable limits)? ad to the overhead and be properly secured. |

¹ 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.

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| Sheet 2 of 5 | Status: VX ND UD |
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| Area Walk-By Checklist (AWC) <u>AWC- 027</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</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)? Overhead fluorescent lighting was secured with chain supports. No open S hooks were observed. Nylon zip ties were present to take up excess chain. | 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? The area appears to be free of potentially adverse seismic conditions 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area. | Y⊠ N□ U□ N/A□ |
| 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 area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations. | Y⊠ N⊡ U⊡ N/A⊡ |

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|---|---|
| Sheet 3 of 5 | Status: VX ND UD |
| Area Walk-By Checklist (AWC) <u>AWC- 027</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area | 86 |
| Have you looked for and found no other seismic conditions adversely affect the safety functions of the equipment in the | that could Y⊠ N□ U□ ∋ area? |
| It was looked for, and no other seismic conditions that could affect the safety functions of the equipment in the area were | 1 adversely e found. |
| | |
| | |
| | |

<u>Comments</u> (Additional pages may be added as necessary)

The zip ties on the light fixture chain supports were used to adjust the position of the lights such that they would not trip the overhead fire/flash detectors when the diesel generator is in operation.

Evaluated by: Daniel Parker Don R R Date: 10/2/2012 Eric Dilbone Eric DEc 10/2/2012

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Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC-027</u>

Location: Bldg. RAB Floor El. 369 Room, Area 86

SWEL Components: <u>SWEL1- 110(P-107B), 069(PS-5284), 077(TS-7904), 068(SE-5220), 066(M-225B)</u>

Photographs



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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC-027___

Location: Bldg. RAB Floor El. 369 Room, Area 86

SWEL Components: <u>SWEL1- 110(P-107B), 069(PS-5284), 077(TS-7904), 068(SE-5220), 066(M-225B)</u>



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|--|--|
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| Sheet 1 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 028</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area ¹ <u>86</u> | |
| SWEL Components: <u>SWEL1- 006(E-21), 053(VFP-26B), 050(SV-5239</u> 106B2), 064(F-50B), 102(T-78B) | 9), 065(F-52B), 013(P- |
| 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 Additional space is provided at the end of this checklist for documenting other or | one or more SWEL items. The of judgments and findings. comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Anchorage of equipment in the area appears to be free of potentially adverse seismic conditions. | Y⊠ N∏ U∏ N/A∏ |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area appears to be free of 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)? <i>All rigid electrical conduit is adequately anchored to the overhead and the walls. Overhead piping and ducts appear to be properly secured.</i> | |

Engineering Report No. CALC-ANO1-CS-12-00002

¹ 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.

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| Sheet 2 of 5 | |
|--|---------------|
| Area Walk-By Checklist (AWC) <u>AWC- 028</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</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)? | |
| Overhead fluorescent lighting was secured with chain supports. No 'open S hooks were observed. Nylon zip ties were present to take up excess chain. | |
| A fire extinguisher was mounted on a support hook near the fire door and E-21. The vertical hook mount was relatively short. During a seismic event the fire extinguisher may bounce of the support and fall to the ground. This may cause it to expel its contents. This will not have in potentially adverse seismic impact. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | YX N U N/A |
| The area appears to be free of potentially adverse seismic conditions that could cause flooding or spray in the area. | |
| Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | 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 area appears to be free of potentially adverse seismic interactions | |
| associated with housekeeping practices, storage of portable equipment, and temporary installations. | |

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| Sheet 3 of 5 | | | | | | U |
|---|--|--|---|------------------------|--|-------------------|
| Area Walk-By Checklist | (AWC) <u>AWC- 02</u> | 28 | | Stat | tus: Y⊠ I | |
| _ocation: Bldg. <u>RAB</u> | Floor El. <u>369</u> | Room, Area | 86 | | | |
| 8. Have you looked for a adversely affect the s It was looked for, and affect the safety funct | and found no other s afety functions of the I no other seismic co tions of the equipmen | eismic conditions e equipment in th onditions that coul nt in the area we | that could e area? d adversely re found. | Y N | | |
| | | | | | | |
| Comments (Additional page | s may be added as r | necessary) | | | | |
| <u>Comments (</u> Additional page The zip ties on the lig they would not trip | es may be added as i Int fixture chain supp the overhead fire/fla | necessary) ports were used to ash detectors who | o adjust the po en the diesel g | osition of generato | the lights si r is in opera | uch that tion. |
| <u>Comments (</u> Additional page The zip ties on the lig they would not trip | es may be added as i iht fixture chain supp the overhead fire/fla | necessary) ports were used to ash detectors who | o adjust the po en the diesel g | osition of generato | the lights si r is in opera | uch that tion. |
| <u>Comments (</u> Additional page The zip ties on the lig they would not trip ∃valuated by: <u>Daniel Parker</u> | es may be added as i int fixture chain supp the overhead fire/fla Oan R. R. | necessary) ports were used to ash detectors who | o adjust the po en the diesel g | osition of generato | the lights si r is in opera <u>10/2/2012</u> | uch that tion. |
| <u>Comments (</u> Additional page The zip ties on the lig they would not trip Evaluated by: <u>Daniel Parker</u> | es may be added as i int fixture chain supp the overhead fire/fla Dank Ru- | necessary) ports were used to ash detectors who | adjust the po en the diesel g | psition of generato | the lights si r is in opera <u>10/2/2012</u> <u>10/2/2012</u> | uch that tion. |

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Status: YX N U

Area Walk-By Checklist (AWC) ____AWC- 028

Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</u>

SWEL Components: <u>SWEL1- 006(E-21), 053(VFP-26B), 050(SV-5239), 065(F-52B), 013(P-106B2), 064(F-50B), 102(T-78B)</u>____

Photographs



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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) _____AWC- 028___

Location: Bldg. <u>RAB</u> Floor El. <u>369</u> Room, Area <u>86</u>

SWEL Components: <u>SWEL1- 006(E-21), 053(VFP-26B), 050(SV-5239), 065(F-52B), 013(P-106B2), 064(F-50B), 102(T-78B)</u>



| Eng | ineering Report No. CALC-ANO1-CS-12-00002 Attachment D |
|--|--|
| | Page 143 of 152 |
| Sheet 1 of 5 | Status: YX NI III |
| Area Walk-By Checklist (AWC) <u>AWC-029</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>159</u> | |
| SWEL Components: <u>SWEL2-001 (SW-72)</u> | · · · · · · · · · · · · · · · · · · · |
| Instructions for Completing Checklist This checklist may be used to document the results of the Area Walk-By space below each of the following questions may be used to record the n Additional space is provided at the end of this checklist for documenting of | near one or more SWEL items. The esults of judgments and findings. other comments. |
| Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessari opening cabinets)? Anchorage of equipment in the area are appear to be free of pote adverse seismic conditions. | Y⊠ N∏ U∏ N/A∏ ly ntially |
| Does anchorage of equipment in the area appear to be free of significant degraded conditions? Anchorage of equipment in the area appears to be free of significant degraded conditons. | Y⊠ N⊡ U⊡ N/A⊡ ant |
| 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adve seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? All rigid electrical conduit is adequately anchored to the overhead | Y⊠ N□ U□ N/A□ erse |

| Engineering | Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 |
|---|--|
| | Page 144 of 152 |
| Sheet 2 of 5 Area Walk-By Checklist (AWC) <u>AWC-029</u> | Status: Y⊠ N∏ U∏ |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>159</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)? | |
| The area appears to be free of potentially adverse seismic spatial interactions with other equipment in the area. | |
| | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? The area is free of potentially adverse seismic interactions that could cause flooding or spray. Drains in the floor provide a means to mitigate flooding in the event of a pipe break or release of water. | 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? The area appears to be free of potentially adverse seismic interactions that could cause a fire. | 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 area appears to be free of potentially adverse seismic interactions with the items listed. | Y⊠ N□ U□ N/A□ |

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| | g Report No. CALC-ANO1-CS-12-00 Attachme Ro Page 145 of |
|---|--|
| Sheet 3 of 5 Area Walk-By Checklist (AWC) <u>AWC-029</u> | Status: Y⊠ N∏ U∏ |
| Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>159</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? <i>It was looked for, and no other seismic conditions that could adversely affect the safety fuctions were found.</i> | |
| | ` |
| Comments (Additional pages may be added as necessary) | |
| | |
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| | |
| Evaluated by: <u>Sean Smolarek</u> San Such | Date: <u>10/12/2012</u> |

Engineering Report No. CALC-ANO1-CS-12-00002 Attachment D Rev. 0 Page 146 of 152 Sheet 4 of 5 Status: YX N U Area Walk-By Checklist (AWC) _____AWC- 029 Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area 159 SWEL Components: SWEL2-001 (SW-72) **Photographs** 4-0-14 SEISMIC BLOCKWALL Note: Seismic block wall next to SW-72. Note: View of the area surrounding SW-72.

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Sheet 5 of 5

Status: YX N U

Area Walk-By Checklist (AWC) <u>AWC- 029</u>

Location: Bldg. <u>RAB</u> Floor El. <u>404</u> Room, Area <u>159</u>

SWEL Components: SWEL2-001 (SW-72)



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| | Rev. 0 |
| Sheet 1 of 5 | Page 148 of 152 |
| | Status: Y⊠ N⊡ U⊡ |
| Area Walk-By Checklist (AWC) <u>AWC- 030</u> | - |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> | Room, Area ¹ <u>14</u> |
| SWEL Components: SWEL1-023 (CV-1433), | 108 (E-35A) |
| Instructions for Completing Checklist | |
| This checklist may be used to document the results of space below each of the following questions may be Additional space is provided at the end of this checkl | of the Area Walk-By near one or more SWEL items. The used to record the results of judgments and findings. list for documenting other comments. |
| Does anchorage of equipment in the area appropriate potentially adverse seismic conditions (if visits opening cabinets)? All components in the room appeared to be a floor and did not appear to pose a hazard dure | pear to be free of YX NU VNA ble without necessarily adequately anchored to the ring a seismic event. |
| 2. Does anchorage of equipment in the area app significant degraded conditions? Anchorage of equipment in the area appears degraded conditions. | pear to be free of YXN VINA |
| 3. Based on a visual inspection from the floor, d raceways and HVAC ducting appear to be fre seismic conditions (e.g., condition of supports conditions of cable trays appear to be inside All rigid electrical conduit is adequately ancho the walls. Overhead piping and ducts appear | Io the cable/conduit Y N U N/A ee of potentially adverse s is adequate and fill acceptable limits)? ored to the overhead and to be properly secured. |

¹ 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.

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|--|---|
| Sheet 2 of 5 | Status: Y⊠ N⊡ U⊡ |
| Location: Bldg. <i>RAB</i> Floor El. <i>317</i> Room, Area ² 14 | |
| 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 area is free of potential adverse spatial interactions. | |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? There were floor drains installed in the floor, which would mitigate any flooding concerns. Additionally, there was nothing in the area that presented a major flooding concern as a result of seismic interactions. | 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? The area appears to be 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 an area in the room that was roped off as a contaminated area, but this does not present a seismic concern. | Y⊠ N□ U□ N/A□ |

² 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.

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|--|--|
| | Rev. 0 Page 150 of 152 |
| Sheet 3 of 5 | Status: YX N U |
| Area Walk-By Checklist (AWC) <u>AWC- 030</u> | |
| Location: Bldg. <u>RAB</u> Floor El. <u>317</u> Room, Area ³ <u>14</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? | YX NI UI |
| It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment in the area were found. | |
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| | |
| Comments (Additional pages may be added as necessary) | |
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| | |
| Evaluated by: Sean Smolarek Sun Smilt | _ Date: <u>10/3/2012</u> |
| Michael F. Perez | 10/3/2012 |
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³ 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.

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Sheet 4 of 5

Area Walk-By Checklist (AWC) _AWC- 030

Location: Bidg. RAB ______ Floor El. <u>317</u> _____ Room, Area4 <u>14</u>

SWEL Components: SWEL1- 023 (CV-1433), 108 (E-35A)
Photographs

Photographs

Note: View of overhead in Room 14.

Note: View of supports anchored to wall.

⁴ 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.

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Sheet 5 of 5 Status: YX N U Area Walk-By Checklist (AWC) _____AWC- 030 Location: Bldg. RAB Floor El. 317 Room, Areas 14 SWEL Components: SWEL1- 023 (CV-1433), 108 (E-35A) 10 SEISMIC BLOCKWALL Note: Seismic block wall. Note: View of equipment properly anchored to floor.

⁵ 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 E

Potentially Adverse Seismic Conditions

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Table 1 - Potentially Adverse Seismic Conditions

| LB# | SWC/AWC # | IDENTIFIED CONDITION | LICENSING BASIS EVALUATION CONCLUSION | RESOLUTION | STATUS |
|-----|---|---|--|---|--|
| N/A | SWC- SWEL1-010/ SWC- SWEL1-014 | During Fukushima Seismic walkdowns, a concrete pedestal for items P-16A and P-16B was measured to be approximately 10 inch tall: Drawing C-48 states that this platform should be 4inch tall. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01534 initiated CR Action: Revise drawings as required Operability Review: The condition was reviewed by the CR process and it was determined that there is no adverse operability concerns since the CR describes only a minor discrepancy in documentation. | CR-ANO-1-2012-01534 closed to CR-C-2012- 2801. |
| N/A | SWC- SWEL1-010 | During Fukushima Seismic walkdowns, a vent is out of alignment below penetration 252-0008 in the Diesel Vault above P-16A. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01535 and WR-286913 initiated CR Action: WR-286913 initiated to properly install the vent. Operability Review: The condition was reviewed by the CR process and it was determined that there is no adverse operability concerns since the vent is firmly attached and is not in danger of falling. Even if the vent cover were to fall, there is no equipment immediately below it, although the P-16A Diesel Fuel Oil transfer pump is in the immediate vicinity. | CR-ANO-1-2012-01535 closed. WR-286913 initiated. |
| N/A | AWC-007 | Anchor bolts below F0-10A have significant dégradation. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-1536 and WR-287317 initiated CR Action: WR-287317 initiated to touch up paint Operability Review: The condition was reviewed by the CR process and it was determined that the supports show signs of only surface corrosion (flaking paint) and light rust. As a result, the supports and FO-10A/B and the "A" and "B" Diesel Fuel Oil systems remain operable. | CR-ANO-1-2012-1536 closed. WR-287317 initiated. |
| N/A | AWC-008 | During Fukushima Seismic walkdowns, anchor bolts at the base of the tank supports for T-57B, Emergency Diesel Fuel Tank, are bent and corrosion on the base plates was observed. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01537 initiated and WR-286915 initiated CR Action: WR-286915 initiated Operability Review: The condition was reviewed by the CR process and it was determined that the nuts/bolts show signs of light corrosion and peeled paint. The base plate shows signs of corrosion and dirt/debris build up, but does not exhibit any signs of wastage or pitting of the base plate material. Therefore, the T-57B support and T-57B tank are considered operable. | CR-ANO-1-2012-01537 closed. WR-286915 initiated. |
| N/A | AWC-007 | During Fukushima inspections Nuts in personnel platform in room with tank T-57A in the Diesel Vault are loose. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01538 initiated and WR-286917 initiated CR Action: WR-286917 initiated Operability Review: This condition report describes a condition of an SSC that is not within the scope of the Operability Determination Process. An Operability Determination is NOT REQUIRED for the stated condition. | CR-ANO-1-2012-01538 closed. WR-286917 initiated. |
| N/A | SWC- SWEL1-040 | During Fukushima Seismic walkdowns, an S- hook supporting an overhead light fixture was identified to be open over CV-3646 in the | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01613 initiated and WR-286917 initiated | CR-ANO-1-2012-01613 closed. |

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Table 1 - Potentially Adverse Seismic Conditions

| | | Intake Structure, EL 354, Room 241. | | CR Action: WR-286917 initiated | |
|-----|---------|---|--|---|---|
| | | | | Operability Review: The condition was reviewed by the CR process and it was determined that uplifting forces under DBE conditions would be less than the dead load of the fixture. Therefore, all identified safety related equipment remains operable. | WR-286917 initiated |
| N/A | AWC-015 | During Fukushima Seismic walkdowns, an S- hook supporting an overhead light fixture was identified to be open over 1A3-1101 next to GCH-43 in the Aux Bldg, EL 354, Room 63. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01613 initiated and WR-286917 initiated CR Action: WR-286917 initiated Operability Review: The condition was reviewed by the CR process and it was determined that uplifting forces under DBE conditions would be less than the dead load of the fixture. Therefore, all identified safety related equipment remains operable. | CR-ANO-1-2012-01613 closed. WR-286917 initiated |
| N/A | AWC-015 | During Fukushima Seismic walkdowns, an S- hook supporting an overhead light fixture was identified to be open over C115 in the Aux Bldg, EL 354, Room 63. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01613 initiated and WR-286917 initiated CR Action: WR-286917 initiated Operability Review: The condition was reviewed by the CR process and it was determined that uplifting forces under DBE conditions would be less than the dead load of the fixture. Therefore, all identified safety related equipment remains operable. | CR-ANO-1-2012-01613 closed. WR-286917 initiated |
| N/A | AWC-017 | During Fukushima Seismic walkdowns, an S- hook supporting an overhead light fixture was identified to be open over CV-1206 in the Aux Bldg, EL 360, Room 79. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01613 initiated and WR-286917 initiated CR Action: WR-286917 initiated Operability Review: The condition was reviewed by the CR process and it was determined that uplifting forces under DBE conditions would be less than the dead load of the fixture. Therefore, all identified safety related equipment remains operable. | CR-ANO-1-2012-01613 closed. WR-286917 initiated |
| N/A | AWC-013 | During Fukushima Seismic walkdowns, a steel support for PI-3812A is missing an anchor boll into the concrete wall in Room 46, Elevation 335 in the Aux Building. | Condition entered directly into CAP | Initial Action: CR-ANO-1-2012-01611 initiated and WR-289091 initiated CR Action: WR-289091 initiated Operability Review: The condition was reviewed by the CR process and it was determined that PI-3812A is isolated from the Service Water System by normally closed isolation valve SW-3812A. SW-3812A is maintained in the closed position. Therefore, the integrity of the Service Water System boundary is maintained. Therefore, the Service Water System and the Emergency Cooling Pond remain Operable. | CR-ANO-1-2012-01611 closed. WR-289091 initiated |

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Prepared by:

Sean Smolarek

Date: 11/15/2012

Reviewed by:

Eri De Eric Dilbone

Date: 11/15/2012

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Attachment F

Licensing Basis Evaluation Forms

(NOT USED)

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Attachment G

Peer Review Checklist for SWEL

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Peer Review Checklist for SWEL

Instructions for Completing Checklist

This peer review checklist may be used to document the review of the Seismic Walkdown Equipment List (SWEL) in accordance with Section 6: Peer Review. The space below each question in this checklist should be used to describe any findings identified during the peer review process and how the SWEL may have changed to address those findings. Additional space is provided at the end of this checklist for documenting other comments.

| 1. | Were the five safety functions adequately represented in the SWEL 1 selection? | Y⊠ N□ |
|----|--|-------|
| | The SWEL1 contains components which address all five safety functions. Many | |
| | components provide safety functions for multiple systems, and/or are part of frontline | |
| | support systems. All five safety functions discussed in EPRI Report 1025286 are well | |
| | represented in the SWEL. | |

| 2. | Doe attr | es SWEL 1 include an appropriate representation of items having the following sample select ibutes: | ion | |
|----|-------------|--|--------------|----|
| | a. | Various types of systems? Items included on the SWEL comprise a variety of ESF systems such as Emergency Diesel Generators and Auxiliaries, Service Water System, Component Cooling Water System, Residual Heat Removal System, and vital electrical systems. | Y⊠ 1 | |
| | b. | Major new and replacement equipment? Based on input from plant personnel and EC searches, equipment selection personnel identified no "major" changes to safety-related equipment and components made to the plant in the past 15 years. | Y | NØ |
| | c. | Various types of equipment? SWEL 1 includes at least one example of each of the 21 classes of equipment, except class 3 and 6. Two class 3 components were contained on Base List 1; however, both were energized 4160 KV switchgear and access was not recommended for safety reasons. As such, no class 3 components were suitable for inclusion in the SWEL. Class 6 was also minimally represent on Base List 1 and inaccessible. Note also that several classes (11 and 12) are not on Base List 1. As such, they are also not represented on the SWEL1. All of the other equipment classes are well represented. | Y 🛛 Y | 7 |
| | d. | Various environments? The SWEL contains components in mild, harsh, and outdoor environments. The components are located in different buildings, rooms, and/or on different building elevations. | Y X I | |

Peer Review Checklist for SWEL

3.

| e. | Equipment enhanced based on the findings of the IPEEE (or equivalent) program? The SWEL includes components that were identified during the IPEEE as being potentially vulnerable to a seismic event. A sample of these components are included in the SWEL 1. | Υ⊠ | N |
|-----|--|----|----|
| f. | Were risk insights considered in the development of SWEL 1? SWEL 1 includes high risk components based on risk significance in the plant probabilistic risk assessment (PRA) models. | Υ⊠ | N |
| For | SWEL 2: | | |
| a. | Were spent fuel pool related items considered, and if applicable included in SWEL 2? | Υ⊠ | N |
| | The walkdown team identified only a small population of SFP components that are Seismic Category I. These components are included on SWEL 2. | | |
| b. | Was an appropriate justification documented for spent fuel pool related items not included in SWEL 2? | Υ⊠ | N□ |
| | There were no components that could contribute to rapid SFP draindown that were identified. There are no penetrations in the SFP wall below 10 ft above the top of the fuel assemblies, and all piping that communicate with the pool was installed along the refuel floor the top of the pool and then turns down into the pool | | |
| | | | |

4. Provide any other comments related to the peer review of the SWELs.

The peer review team reviewed the initial SWEL 1 and SWEL 2, and provided comments and suggestions for modification of the SWEL. Comments included suggestions to remove equipment mounted to panels and cabinets because they are qualified as a whole (ie; handswtiches), and to include the Letdown heat exchangers.

The peer reviewers ensured the SWELs met the requirements of EPRI Report 1025286.

Required changes to the SWEL necessary during the walkdown due to inaccessibility were reviewed by the peer reviewers to verify that the changes did not impact the level of compliance to the EPRI report.

5. Have all peer review comments been adequately addressed in the final SWEL?

Y⊠N□

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Peer Review Checklist for SWEL

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| Peer Reviewer #1: Frank Cobb Trank Coll | Date: | 10/22/2012 |
|---|-------|------------|
| Rodney A. Carter | | |
| Peer Reviewer #2: Rodney Carter | Date: | 10/29/2012 |

Attachment H

Peer Review Comment Form

| | Enter | gy | | Se Revie | ismic Walkdown w Comments ar | Submittal Report nd Resolutions Form | |
|----------------------|---------------------|------------|---|---|--|--|-------------------------------|
| Engineerin | g | CALC-ANO | -CS-12-00002 | Rev. 0 | Title | | |
| Report Number | | | | ANO-1 Seismic V | Valkdown Report – SWCs and AWCs | | |
| Quality Related: Yes | | Yes 🛛 | No | Special | Notes or Instruction | ons: | |
| Comment Number | Sectio | n/Page No. | Review Comment | | | Response/Resolution | Reviewer's Accept Initials |
| | Gener SWC+ | al, AWC | Several of the SWCs reviewed oxidation or other minor cond the question has been marked the SWC should also include the SWEs stating that the observations require correction include the CR number generation a seismic concern in the NTT | ed note mi lition obse d "Y". In t an explici servation i ically unre on, it woul rated ever F 2.3: Sei | Id surface rvations where these situations, it judgment from is not a seismic elated d be useful to also n if not reported as ismic program. | Explicit statements included for these situations. CRs generated are noted on the SWCs and AWCs, regardless of whether it represents a seismic condition or not. | BDK |
| | General, SWC+AWC | | Where potential conditions ar highly beneficial to include Cl available). This assists with o | re identified, it would be CRs and WRs written have been CR numbers generated (as included in all SWCs and AWCs. cross-referencing. | | BDK | |
| | Gener SWC+ | al, AWC | Anytime "N/A" is marked, a bushould be provided. (For line common justification for anch provided once on SWC). Thi flexibility of lines, etc. | rief explar -mounted orage que s includes | nation/justification items with estions, can be anchorage, | All N/A items now have an explanation of why it has been marked that way. | BDK |
| | Gener SWC+ | al, AWC | Generally, consistency betwe question responses, and CRs improved. | en the jus s initiated | stification text, should be | The checklists have been cleaned up from hand-written notes, and the final copies have improved consistency. | BDK |
| | Gener SWC+ | al, AWC | Additional detail regarding ob be included on the checklists considered appropriately. | served blo to confirm | ock walls should n they were | Identified block walls are seismically designed, and are noted on the checklists where relevant. | BDK |
| | Gener SWC+ | al, AWC | The initial sample of checklist identified potentially adverse to interaction. Please confirm | ts reviewe seismic co n that seis | d has not onditions related mic interaction | Seismic interaction concerns such as the examples described in the EPRI Guidance and in EPRI SWE training | BDK |

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| General, SWC | concerns are considered during walkdowns and area walk-bys. For items requiring anchorage configuration verification, it is useful to note the document #s used for comparison with the configuration observed in the field. | were being considered during walkdowns and area walk-bys. Peer review confirmed this during observation walkdowns. Expanded sample of checklists included examples where seismic interaction concerns were noted, where appropriate. All walkdowns where an anchorage configuration verification check is performed now includes basis document numbers. | BDK |
|-----------------|--|--|-----|
| General, SWC | Please confirm that all cabinet/panel doors were opened (i.e., MCC cubicles). If not, the SWC should include justification for how the goals of the inspection are still being met without opening the cabinet (see supplemental NRC FAQ dated 9-18-12), or should be marked as incomplete pending deferral to when the cabinets will be able to be opened (i.e., outage). | Confirmed. Additional clarification is now included on SWC forms where useful. | BDK |
| General, SWC | Additional clarification is recommended to explain what the anchorage question responses mean for in-line components that have no formal anchorage. | General description of how non- anchored components were treated is included in the body of the report. | BDK |
| General, SWC | It would be useful to indicate the equipment class name/description on the SWCs, not just the number. | Equipment class names are on each SWC. | BDK |
| General, SWC | Several SWEL items appear to be described using incorrect/inappropriate equipment class designations. Please revisit the classes assigned and correct where necessary. | Corrections made to SWCs, Base List 1, and SWEL 1. Each SWC includes the proper equipment class. | BDK |
| General, AWC | Several of the AWCs reviewed were somewhat unclear about what "Area" around the SWEL item(s) is considered. Recall that an acceptable "Area" is an approximate 35' radius from the SWEL item. Consider including a more general photo of the area and/or include brief statement of area considered (i.e., if entire room looked at, say so). | Where an area considered was less than the entire room, a brief description has been included on the AWC. | BDK |

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| | General, AWC | Include a phot identified durir | o on the AWC of eacl ng that area walk-by. | h seismic | condition | Photos are inclu were identified, photo of the are | ided wherever conditions as well as a general a in most cases. | BDK |
|-------------|---------------------|-------------------------------------|---|-----------------------|------------|---|--|-----|
| | General, SWC+AWC | Need to discus during a seism | ss why the block wall lic event | will remai | n stable | Additional inforr block walls. No all of their seisn walls with a blue | nation is provided on te that ANO has painted nically qualified block e stripe. | PAM |
| | General, SWC | List the ancho verification is p | rage dwgs in the SW(performed | C if a confi | iguration | Drawings/calcul documentation SWCs where an verification is pe | ations/plant is now referenced in all n anchorage configuration erformed. | PAM |
| | General, SWC+AWC | Must justify the not adversely | at minor corrosion/sur mpact seismic qualifi | face oxida cation. | ation does | Added a statem mild corrosion c | ent justifying any noted r surface oxidation. | PAM |
| | _ | | | | | | | |
| Reviewed B | Зу: | Paul A. Miktus | | Date | 10/11/12 | | · | |
| Site/Depart | tment: | ENERCON/PM | Ph. 770-792-6972 | | _ | | | |
| | | | | | | | | |
| Reviewed B | Зу: | Benjamin D. Kosbab | | Date | 10/11/12 | Resolved By: | Sean Smolarek | |
| Site/Depart | tment: | ENERCON/Civil | Ph. 770-590-2179 | | | Date: 10/25/20 | 12 | |

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| | tergy | Seismic Walkdown Subm Review Comments and R | mic Walkdown Submittal Report iew Comments and Resolutions Form | | | | |
|---------------------------|---------------------|--|--|--|-------------------------------|--|--|
| Engineering Report Nun |) CALC-AN | IO1-CS-12-00002 | Rev. 0 Title: ANO-1 Fu | ukushima Seismic – SWC & AWC Review | | | |
| Quality Re | ated: 🗌 Yes | 🛛 No | Special Notes or Instruct | ions: | | | |
| Comment Number | Section/Page No. | Review C SWEL1 CO | omment MMENTS | Response/Resolution | Reviewer's Accept Initials | | |
| 1 | SWEL1 | Remove Hand Switches from S likely not be visible (even with switches will be evaluated with | SWEL as the mounting will the cabinet opened) and the the panel as a whole | Removed Hand Switches | FC | | |
| 2 | SWEL1 | Ensure any items identified to preliminary walkdowns are swa items (class, environment, etc) | be inaccessible on apped out with equivalent | A preliminary walkdown was performed to identify any inaccessible items or components. These items were swapped out by Equipment Selection Personnel and sent back to the SWEL peer reviewer for concurrence. | FC/RC | | |
| 3 | SWEL1 | Verify each class of componen It appears a few do not show u | t is adequately represented. p in the SWEL. | Two class 3 components were contained on Base List 1; however, both were energized 4160 KV switchgear and access was not recommended for safety reasons. As such, no class 3 components were suitable for inclusion in the SWEL. Class 6 was also minimally represented on Base List 1 and inaccessible. Note also that several classes (11 and 12) are not on Base List 1. As such, they are also not represented on the SWEL1. | FC/RC | | |
| 4 | SWEL1 | Are there any major new or rep included? | placement components | Plant personnel as well as the electronic database were consulted to find new and replacement items. Many items were identified on the SWEL to be new or have been replaced since the IPEEE report. However, the Guidance defines the new and replacement classification as "major", | FC | | |

| | | | | of which none of the components fit. | <u></u> |
|---|-----------------|---|---|--|---------|
| 5 | SWEL1 | Suggest expanding representation of e with some of the major heat removal ec exchangers). | quipment class 21 quipment (i.e., heat | Decay Heat coolers were added. Letdown Heat Exchanger was not added at the request of RP – this heat exchanger is in a significant dose area. | FC |
| | · | SWEL 2 COMMENT | ·c | | |
| | | SWEL 2 COMMENT | 3 | | |
| 6 | SWEL2 | Verify Safety Classification of SFP Coo | ling System | Per the Upper Level Document on the Spent Fuel Pool, The SFP Cooling System is Non-Safety and Non-Seismic. Safety-related service water to SFP connection valve is included on SWEL 2. | FC |
| | Reviewed By: | Rodney Carter/Frank Cobb | Date 10/24/12 | Resolved By: Sean Smolarek | |
| S | ite/Department: | OPS/Mech | | Date: 10/25/12 | |

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Attachment I

Seismic Walkdown Engineering Training Certificates

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Engineering Report No. CALC-ANO1-CS-12-00002 Attachment I Rev. 0 Page 2 of 19

Seismic Walkdown Engineers

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Sean Smolarek

Eric Dilbone

Daniel Andoh

Roy Berryman

Genaro Barragan

Michael Perez

Daniel Parker

Chris Johnson

Ojaswi Shrestha

Engineering Report No. CALC-ANO1-CS-12-00002

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Certificate of Completion

is hereby granted to

Sean Smolarek

for successful completion of TRAINING ON NEAR TERM TASK FORCE RECOMMENDATION 2.3 PLANT SEISMIC WALKDOWNS

August 22, 2012 – Kennesaw, GA

Date - Location

Kursat Kinali, Ph.D., P.E. EPRI Certified Seismic Walkdown Engineer Alexandria, VA – 7/27/2012

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Eric Dilbone

for successful completion of

TRAINING ON NEAR TERM TASK FORCE RECOMMENDATION 2.3 PLANT SEISMIC WALKDOWNS

Awarded: 7/11/2012 in Kennesaw, GA

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

Kenneth Whitmore Certified Seismic Walkdown Engineer Alexandria, VA – 6/20/2012

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Daniel Andoh

for successful completion of TRAINING ON NEAR TERM TASK FORCE RECOMMENDATION 2.3 PLANT SEISMIC WALKDOWNS

August 22, 2012 – Kennesaw, GA

Date – Location

Kursat Kinali, Ph.D., P.E. EPRI Certified Seismic Walkdown Engineer Alexandria, VA – 7/27/2012

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Certificate of Completion

is hereby granted to

Roy Berryman

for successful completion of

TRAINING ON NEAR TERM TASK FORCE RECOMMENDATION 2.3 PLANT SEISMIC WALKDOWNS

Awarded: 7/11/2012 in Kennesaw, GA

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

Kenneth Whitmore Certified Seismic Walkdown Engineer Alexandria, VA – 6/20/2012

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Attachment I Rev. 0 Page 6 of 19 Structural Integrity Associates, Inc.®

Certificate of Completion

GENARO BARRAGAN

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

9-13-12

Jason Halse

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Jason Halsey Structural Integrity Associates, Inc



| Engineering Report No. CALC-ANO1-CS-12-0 Attachn Page 9 EPCI Electric power RESEARCH INSTITUTE |
|--|
| Certificate of Completion |
| Dan Parker |
| Training on Near Term Task Force Recommendation 2.3 |
| - Plant Seismic Walkdowns |
| July 27, 2012 Date Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity |
| |

ELECTRIC POWER RESEARCH INSTITUTE <u>e</u>pe

Certificate of Completion

Chris Johnson

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

June 13, 2012

Date

R.P. Kassawana

Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity

| Attachment Rev. Page 1 of 1 |
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Seismic Walkdown Peer Reviewers

Paul Miktus

Ben Kosbab



Certificate of Achievement

This is to Certify that

Paul A. Miktus

has Completed the SQUG Walkdown Screening and Seismic Evaluation Training Course Teld Iune 22–26, 1992



Neil P. Smith, Commonwealth Edison SQUG Chairman

ngineering-Report No-CAL

Robert P. Kassawara, EPRI SQUG Program Manager

David A. Freed, MPR Associates SQUG-Training Coordinator

Engineering Report No. CALC-ANO1-CS-12-00002



Certificate of Achievement

This is to Certify that

Paul A. Miktus

has Completed the Seismic IPE Add—On Training Course Teld July 27–29, 1992

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David A. Freed, MPR Associates SQUG Training Coordinator

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Robert P. Kassawara, EPRI SQUG Program Manager



Excellence—Every project: Every day.

Certificate of Completion

is hereby granted to

Benjamin Kosbab

for successful completion of

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

Awarded: 7/11/2012 in Kennesaw, GA

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

Kenneth Whitmore Certified Seismic Walkdown Engineer Alexandria, VA – 6/20/2012

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EPRI-Qualified SWE Trainers

Kevin Bessell

Kursat Kinali

Ken Whitmore

| | | Page |
|---|--|------|
| : | Certificate of Completion | |
| | Kevin Bessell | |
| | Training on Near Term Task Force Recommendation 2.3 - Plant Seismic Walkdowns | |
| | June 13, 2012 Date Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity | |

| Engineering Report No. CALC-ANOI-CS-12-00 Attachme Page 18 Page 18 RESEARCH INSTITUTE |
|---|
| Certificate of Completion |
| Kursat Kinali |
| Training on Near Term Task Force Recommendation 2.3 - Plant Seismic Walkdowns |
| July 27, 2012 Date Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity |

| cate of Completion | Certifica |
|--|-----------------------|
| neth Whitmore | Kenne |
| on Near Term Task Force commendation 2.3 | Training on Recor |
| t Seismic Walkdowns | - Plant S |
| 2012 Robert K. Kassawara EPRI Manager, Structural Reliability & Integrity | June 21, 2012 Date |