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SEP 11 1998

SERIAL: BSEP 98-0145

10 CFR 50.54(f)

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
GENERIC LETTER 87-02, "VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL
AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, USI A-46"
(NRC TAC NOS. 69433 AND 69434)

Gentlemen:

On February 19, 1987, the NRC issued Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46." Supplement 1 to NRC Generic Letter 87-02 was issued on May 22, 1992.

In a response to Generic Letter 87-02 dated September 15, 1995 (Serial: BSEP 95-0485), Carolina Power & Light (CP&L) Company stated that "outlier" resolution would be performed in accordance with the Seismic Qualification Utility Group (SQUG) "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Power Plant Equipment," Revision 2. As part of this letter, CP&L submitted the USI A-46 evaluation for the Brunswick Steam Electric Plant (BSEP), which was prepared in accordance with the GIP Section I.2.2.8, "Completion Reports," and GIP Section II.9, "Documentation." The USI A-46 evaluation was provided in the form of two reports entitled "USI A-46 Seismic Evaluation Report" and "USI A-46 Relay Evaluation Report."

In the September 15, 1995, letter, CP&L stated that final outlier resolution would be accomplished in accordance with GIP Section II.5.3, "Outlier Resolution," by start-up from Refueling Outage 11 for Unit 1 (i.e., B112R1) and Refueling Outage 12 for Unit 2 (i.e., B213R1). CP&L also stated that, within 120 days following start-up from Refueling Outage 11 for Unit 1, CP&L would supplement the USI A-46 Seismic Evaluation Report to document resolution of identified outliers. Subsequently, by letter dated July 11, 1997 (Serial: BSEP 97-0269), CP&L notified the NRC that final outlier resolution for certain Unit 2 components associated with the Control Building Heating Ventilation and Air Conditioning system would not be completed by the end of Refueling Outage 11 for Unit 1.

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PDR ADOCK 05000324
P PDR

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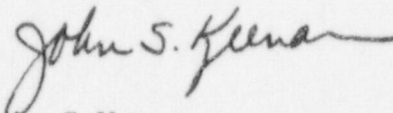
CP&L has completed final outlier resolution for both BSEP, Units 1 and 2. The Unit 1 outlier resolutions have been documented in CP&L Calculation Number 1SEIS-0028, "USI A-46 Seismic Evaluation and Documentation Records For BNP-1." The Unit 2 outlier resolutions have been documented in CP&L Calculation Number 2SEIS-0028, "USI A-46 Seismic Evaluation and Documentation Records For BNP-2." Attachment A of each calculation provides a table identifying the resolution for each outlier.

Based on guidance received through discussions with the NRC Project Manager, supplementing the "USI A-46 Seismic Evaluation Report" to document resolution of identified outliers is no longer necessary. However, to assist the NRC in completing their review and closure of the USI A-46 issue, a partial copy of Calculation Numbers 1SEIS-0028 and 2SEIS-0028 (i.e., the cover sheet, revision summary sheet, list of effective pages, table of contents, and Attachment A) is provided in Enclosures 1 and 2, respectively.

The "USI A-46 Relay Evaluation Report" identified 76 relays and process switches that were still under evaluation, and thus classified as potential outliers. The evaluation has been completed and these relays and process switches have been shown to be "chatter acceptable;" therefore, these relays and switches have been resolved without modification. The results of the relays and switches evaluation have been documented in a revision to the "USI A-46 Relay Evaluation Report." A copy of the "USI A-46 Relay Evaluation Report" is available at BSEP for NRC inspection.

No regulatory commitments are contained in this letter. Please refer any questions regarding this submittal to Mr. Keith R. Jury, Manager - Regulatory Affairs, at (910) 457-2783.

Sincerely,



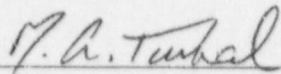
John S. Keenan

WRM/wrm

Enclosures:

1. Calculation No. 1SEIS-0028, "USI A-46 Seismic Evaluation and Documentation Records For BNP-1" (Partial Copy)
2. Calculation No. 2SEIS-0028, "USI A-46 Seismic Evaluation and Documentation Records For BNP-2" (Partial Copy)

John S. Keenan, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, and agents of Carolina Power & Light Company.



Notary (Seal)

My commission expires: 05/18/2003

cc (with enclosures):

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ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
GENERIC LETTER 87-02, "VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL
AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, USI A-46"
(NRC TAC NOS. 69433 AND 69434)

CALCULATION NO. 1SEIS-0028, "USI A-46 SEISMIC EVALUATION AND
DOCUMENTATION RECORDS FOR BNP-1"
(PARTIAL COPY)

CALCULATION TITLE AND APPROVAL COVER SHEET FORM 0ENP-303-1 (12/94)

SYSTEM# 9895

CALC. TYPE ESSQUG

CAROLINA POWER & LIGHT COMPANY

1SEIS-0028
CALCULATION NO.

USI A-46 SEISMIC EVALUATION AND DOCUMENTATION RECORDS FOR BNP-1
(TITLE INCLUDING STRUCTURES/SYSTEM/COMPONENT)

SQUG/BNP-UNIT 1
(PROJECT AND/OR PLANT NAME & APPLICABLE UNIT)

SAFETY RELATED : YES ☒ NO ☐
SEISMIC : ☒ ☐

APPROVAL

Rev. No.	Prepared By Date	Verified By Date	Resp. Manager Date
0	Chuck Raines 5/20/98 <i>By Telecom & and put</i>	Dan Zebroski 5/21/98 <i>Dal Zebroski 5/21/98</i>	<i>Mark [Signature] 5/21/98</i>
		Method of Verification:	☒ Design Review ☐ Alternate Calculation ☐ Qualification Testing
		Method of Verification:	☐ Design Review ☐ Alternate Calculation ☐ Qualification Testing
		Method of Verification:	☐ Design Review ☐ Alternate Calculation ☐ Qualification Testing

Calculation ID 1SEIS-0028
Rev. 0

Revision Summary

[illegible]

Computed by: Chuck Raines	Date: 5/20/98	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: ISEIS-0028		
Checked by:	Date:		Pg. 1	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 1					

LIST OF EFFECTIVE PAGES

Page	Rev	Page	Rev	Page	Rev
Cover Sheet	0				
Rev. Summary	0				
1	0				
2	0				
3	0				
4	0				
5	0				
				Attachment A	0
				Attachment B	0
				Attachment C	0

Computed by: Chuck Raines	Date: 5/20/98	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 1SEIS-0028		
Checked by:	Date:		Pg. 2	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 1					

TABLE OF CONTENTS

<u>Subject</u>	<u>Page No.</u>
LIST OF EFFECTIVE PAGES	1
TABLE OF CONTENTS.....	2
1.0 PURPOSE.....	3
2.0 LIST OF REFERENCES.....	3
3.0 ASSUMPTIONS.....	3
4.0 CONCLUSIONS	4
5.0 BODY OF CALCULATION	5

ATTACHMENTS

Page(s)

"A" (USI A-46 Resolution Final Tables).....	38
"B" (Revised SEWS Forms).....	94
"C" (Record of Review).....	2

Computed by: Chuck Raines	Date: 5/20/98	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 1SEIS-0028		
Checked by:	Date:		Pg. 3	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 1					

1.0 PURPOSE:

This evaluation contains a summary of resolutions of outliers and concerns, identified by the Seismic Review Team (SRT) during the USI A-46 walkdowns.

2.0 LIST OF REFERENCES

- 2.1 Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment Revision 2, corrected 2-14-92, and the associated Supplemental Safety Evaluation Report No. 2 (SSER No. 2), and The Seismic Qualification Utility Group (SQUG) Response to SSER No. 2, dated August 21, 1992.
- 2.1 Brunswick Nuclear Plant USI A-46 Seismic Evaluation Report, Revision 0, dated September 1995.
- 2.2 William R. Campbell Letter to The NRC, dated September 15, 1995, BSEP Unit Nos. 1 and 2 Docket Nos. 50-325 and 50-324/License nos. DPR-71 and DPR-62 Submittal of the Results of the Implementation of the Resolution of Unresolved Safety Issue A-46, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors" (TAC Nos. M69433 and M69434). Serial: BSEP 95-0485
- 2.3 C.S. Hinnant Letter to The NRC, dated July 11, 1997, "Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2 docket nos. 50-325 and 50-324/license nos. DPR-71 and DPR-62 Revision to Schedule for Resolution of Unresolved Safety Issue A-46 (TAC nos. M69433 and M69434). Serial: BSEP 97-0269
- 2.4 ESR 96-00407
- 2.5 ESR 97-00268

3.0 ASSUMPTIONS

Not Applicable

Computed by: Date: 5/20/98 Chuck Raines	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 1SEIS-0028		
Checked by: Date:		Pg. 4	Of	Rev. 0
Project No.:		File:		
Project Title:				
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 1				

4.0 CONCLUSIONS

In general this calculation is a form of tracking system for all involved engineering and design resolution documentation for the BNP Unit 1 SQUG effort.

The resolutions in conjunction with respective seismic adequacy evaluations verify, that the SQUG identified safe shutdown systems would not be prevented from performing their safe shutdown functions before, during and after a seismic event associated with Design Basis Earthquake.

Computed by: Chuck Raines	Date: 5/20/98	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: ISEIS-0028		
Checked by:	Date:		Pg. 5	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 1					

5.0 BODY OF CALCULATION

This calculation is a summary and a quick reference of A-46 issues, resolutions and documents involved (see Final Tables in attachment "A").

The following is description of columns in the Final Tables:

- | | |
|------------------------|---|
| 1) SEWS_ID | (this column identifies the SEWS item number) |
| 2) EQUIP_ID | (this column addresses equipment number identified in the SEWS) |
| 3) HOUSEKEEPING | (this column shows WR/JO no. if housekeeping is a resolution) |
| 4) WR_JO | (this column indicates WR/JO no. involved in resolution) |
| 5) ESR | (this column indicates ESR no. involved in resolution) |
| 6) CALC | (this column lists number of calc associated with resolution) |
| 7) COMMENTS | (this column describes an issue) |
| 8) RESOLUTION_COMMENTS | (this column describes the resolution) |
| 9) OUT_NEW | (this column shows an outlier number from Ref. 2 OSVS or Tables) |

There are four Tables included in Attachment "A". The first Table shows all outliers and open items that were resolved by calculations. The second shows those that required some work and no calculations. The third shows those requiring calculations and work. The fourth shows those resolved by SEWS revisions.

Attachment "B" includes the SEWS that were revised as part of the outlier resolution effort. Note that there are more SEWS in Attachment "B" than are listed in Table 4. That is because Table 4 only lists the outliers that were resolved by a revision to the SEWS, for further evaluation or some other reason. Attachment "B" includes all Unit 1 SEWS that were revised, if there were outliers associated with them, they will be listed in another table.

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
02	1-VA-1A-BFIV-RB	96C1925-R-01	Outlier 02. The elevation is more than 40' above grade so a demand/capacity review is required.	Calculation resolved issue	142
02	1-VA-1B-BFIV-RB	96C1925-R-01	Outlier 02. The elevation is more than 40' above grade so a demand/capacity review is required.	Calculation resolved issue	146
02	1-VA-1C-BFIV-RB	96C1925-R-01	Outlier 02. The elevation is more than 40' above grade so a demand/capacity review is required.	Calculation resolved issue	147
02	1-VA-1D-BFIV-RB	96C1925-R-01	Outlier 02. The elevation is more than 40' above grade so a demand/capacity review is required.	Calculation resolved issue	148
03	1-1PA	0SEIS-0005	Panel anchorage is in general agreement with details in 0SEIS-0004. Anchorage outlier due to edge distance less than 4D.	Calculation resolved issue	17
03	1-1PB	0SEIS-0005	Anchorage outlier due to edge distance less than 4D.	Calculation resolved issue	18.1
05	1-1A-UPS	2SEIS-0023	Outlier 05. The load path to the anchorage is undefined and the equipment pad anchorage is questionable making this an anchorage outlier.	Calculation resolved issue	6
05	1-B21-PNL-QV9	250401-C-01	Outlier 05. The anchorage and curb require an outlier evaluation.	Calculation resolved issue	42.2
05	1-CAC-TY-4426-1	250401-C-01	Outlier 05. It is included in the outlier for all Control Room cabinets for anchorage. See Calc. 82-251-05 and EQE Report 52171-R-001 for anchorage details and qualification.	Calculation resolved issue	53
05	1-CAC-TY-4426-2	250401-C-01	Outlier 05. It is included in the outlier for all Control Room cabinets for anchorage. See Calc. 82-251-05 and EQE Report 52171-R-001 for anchorage details and qualification.	Calculation resolved issue	54.1

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
05	1-H12-P601	250401-C-01	Outlier 05. The anchorage is part of the Control Room cabinet.	Calculation resolved issue	98.2
05	1-H12-P603	250401-C-01	Outlier 05. The anchorage is part of the Control Room cabinet.	Calculation resolved issue	89.1
05	1-H12-P606	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	90.1
05	1-H12-P608	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	91
05	1-H12-P609	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	92.3
05	1-H12-P610	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	93
05	1-H12-P611	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	94.1
05	1-H12-P612	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	95
05	1-H12-P613	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	96
05	1-H12-P614	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	97.2

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
05	1-H12-P615	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	98.3
05	1-H12-P616	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	99.2
05	1-H12-P617	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	100.3
05	1-H12-P618	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	101.3
05	1-H12-P620	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	102.3
05	1-H12-P622	250401-C-01	Outlier 05. Anchorage details require review.	Calculation resolved issue	103
05	1-H12-P623	250401-C-01	Outlier 05. Anchorage details/ curb damage require review as part of the Control Room cabinet outlier	Addressed in calc, step 7.7.4.2	104.4
05	1-H12-P624	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	105.4
05	1-H12-P626	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	106.3
05	1-H12-P627	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	107.1

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
05	1-H12-P628	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	108.1
05	1-H12-P630	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	109
05	1-IR-RB-4	250401-C-01	Outlier 05. The embedded anchorage requires evaluation.	Calculation resolved issue	112
05	1-XU-13	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	169
05	1-XU-2	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	170
05	1-XU-24	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	171
05	1-XU-25	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	172.1
05	1-XU-27	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	173.3
05	1-XU-28	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	174.4
05	1-XU-3	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	175

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
05	1-XU-39	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	176
05	1-XU-40	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	177
05	1-XU-50	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	179.1
05	1-XU-51	250401-C-01	Outlier 05. Further evaluation of embed channel is required.	Calculation resolved issue	180
05	1-XU-53	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	181.1
05	1-XU-56	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	182
05	1-XU-57	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	183
05	1-XU-58	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	184
05	1-XU-63	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	185.3
05	1-XU-64	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	186.1

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
05	1-XU-65	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	167.1
05	1-XU-66	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	189.2
05	1-XU-67	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	190.1
05	1-XU-68	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	191.3
05	1-XU-7	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	192
05	1-XU-73	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	193.1
05	1-XU-75	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	194
05	1-XU-76	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	195
05	1-XU-77	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	196
05	1-XU-79	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	197

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
05	1-XU-9	250401-C-01	Outlier 05. The anchorage details require review as part of Control Room cabinet.	Calculation resolved issue	198.2
06	1-E5	96C1925-R-01	Outlier 06. The anchorage of the entire switchgear assembly (including the transformer) is to be evaluated as an outlier due to weak-way bending.	Calculation resolved issue	78
06	1-E6	96C1925-R-01	Outlier 06. The anchorage of the entire switchgear assembly (including the transformer) is to be evaluated as an outlier due to weak-way bending.	Calculation resolved issue	82
07	1-VA-1A-D-CB	96C1925-R-01	Outlier 07. In-line component, attached to a stiff support. It is mounted higher than 40' above grade and the frequency is undetermined. Further evaluation is required.	Calculation resolved issue	144
07	1-VA-1H-D-CB	96C1925-R-01	Outlier 07. In-line component, attached to a stiff support. Mounted higher than 40' above grade and the frequency is undetermined. Further evaluation is required.	Calculation resolved issue	152
07	1-VA-FV-1026	96C1925-R-01	Outlier 07. The valve is mounted on a duct at El. 85' which is higher than 40' above grade so a demand/capacity evaluation is required.	Calculation resolved issue	154
07	1-VA-FV-1027B	96C1925-R-01	Outlier 07. The valve is mounted on a duct at El. 85' which is higher than 40' above grade so a demand/capacity evaluation is required.	Calculation resolved issue	155
08	1-B21-F022A	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	34
08	1-B21-F022B	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	
08	1-B21-F022C	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	36

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
08	1-B21-F022D	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	37
08	1-B21-F028A	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	38
08	1-B21-F028B	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	39
08	1-B21-F028C	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	40
08	1-B21-F028D	96C1925-R-01	Outlier 08. MSIV type valves aren't well represented in the experience database and review of existing qualification package is recommended. Operator weight is much higher than GIP maximum, height only slightly exceeds it. Review of existing SEQ and HCL.	Calculation resolved issue	41
08	1-G16-F003	96C1925-R-01	Outlier 08. Operator design is not represented in the earthquake experience database.	Calculation resolved issue	84
08	1-G16-F004	96C1925-R-01	Outlier 08. Operator design is not represented in the earthquake experience database.	Calculation resolved issue	85
08	1-G16-F019	96C1925-R-01	Outlier 08. Operator design is not represented in the earthquake experience database.	Calculation resolved issue	86
08	1-G16-F020	96C1925-R-01	Outlier 08. Operator design is not represented in the earthquake experience database.	Calculation resolved issue	87
09	1-E21-F004A	96C1925-R-01	Outlier 09. Capacity vs demand and threaded connections. The item is judged acceptable with justification. However, since it is the same as other outlier valves, it too will be evaluated.	Calculation resolved issue	71

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
09	1-E21-F005A	96C1925-R-01	Outlier 09. Capacity vs demand and threaded connections. The item is judged acceptable with justification. However, since it is the same as other outlier valves, it too will be evaluated.	Calculation resolved issue	72
09	1-SW-V136	96C1925-R-01	Outlier 09. This item was judged acceptable with justification. However, since it is the same as the Unit 2 valves being evaluated, it too will be evaluated.	Calculation resolved issue	125
09	1-SW-V137	96C1925-R-01	Outlier 09. This item was judged acceptable with justification. However, since it is the same as the Unit 2 valves being evaluated, it too will be evaluated.	Calculation resolved issue	126
09	1-SW-V138	96C1925-R-01	Outlier 09. This item was judged acceptable with justification. However, since it is the same as the Unit 2 valves being evaluated, it too will be evaluated.	Calculation resolved issue	127
09	1-SW-V139	96C1925-R-01	Outlier 09. This item was judged acceptable with justification. However, since it is the same as the Unit 2 valves being evaluated, it too will be evaluated.	Calculation resolved issue	128
10	1-E11-F002AMO	96C1925-R-01	Outlier 10. Valve yoke capacity evaluation. Yoke detailed during Unit 2 walkdowns. Refer to SEWS for 2-E11-F002A.	Calculation resolved issue	61
10	1-E11-F002BMO	96C1925-R-01	Outlier 10. Valve yoke capacity evaluation. See sketch in SEWS for 2-E11-F002B for valve as-built.	Calculation resolved issue	62
10	1-E41-F012	96C1925-R-01	Outlier 10. Valve yoke capacity evaluation. Yoke is ductile iron.	Calculation resolved issue	74
10	1-SW-V101	96C1925-R-01	Outlier 10. Yoke evaluation and capacity vs demand. This item was judged acceptable with justification. However, due to similarities to outlier valves, this one will also be evaluated.	Calculation resolved issue	120
10	1-SW-V102MO	96C1925-R-01	Outlier 10. Yoke evaluation and capacity vs demand. This item was judged acceptable with justification. However, due to similarities to outlier valves, this one will also be evaluated.	Calculation resolved issue	121

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
10	1-SW-V103MO	96C1925-R-01	Outlier 10. Yoke evaluation and capacity vs demand. This item was judged acceptable with justification. However, due to similarities with other, outlier, valves this one will also be evaluated.	Calculation resolved issue	122
10	1-SW-V105	96C1925-R-01	Outlier 10. Yoke evaluation and capacity vs demand. This item was judged acceptable with justification. However, due to similarities to outlier valves, this one will also be evaluated.	Calculation resolved issue	123
10	1-SW-V106MO	96C1925-R-01	Outlier 10. Yoke evaluation and capacity vs demand. This item was judged acceptable with justification. However, due to similarities to other, outlier, valves this one will also be evaluated.	Calculation resolved issue	124
10	1-SW-V14MO	96C1925-R-01	Outlier 10. Ductile iron yoke requires evaluation. See 2-E11-F002A SEWS for as-built of yoke. 1-SW-V20MO also has yoke as-built. Pipe size is 20".	Calculation resolved issue	129
10	1-SW-V16MO	96C1925-R-01	Outlier 10. Ductile iron yoke requires evaluation. See 2-E11-F002A SEWS for as-built of yoke. 1-SW-V20MO also has yoke as-built. Pipe size is 20".	Calculation resolved issue	130
10	1-SW-V18MO	96C1925-R-01	Outlier 10. Ductile iron yoke requires evaluation. See 2-E11-F002A SEWS for as-built of yoke. 1-SW-V20MO also has yoke as-built. Pipe size is 20".	Calculation resolved issue	131
10	1-SW-V19MO	96C1925-R-01	Outlier 10. Ductile iron yoke requires evaluation. See 2-E11-F002A SEWS for as-built of yoke. 1-SW-V20MO also has yoke as-built. Pipe size is 20".	Calculation resolved issue	132
10	1-SW-V20MO	96C1925-R-01	Outlier 10. Ductile iron yoke requires evaluation. See 2-E11-F002A SEWS for as-built of yoke. 1-SW-V20MO also has yoke as-built. Pipe size is 20".	Calculation resolved issue	133
10	1-SW-V210	96C1925-R-01	Outlier 10. Yoke is ductile iron. Valve will be replaced and moved per PM 91-071. Evaluation needed.	Valve replaced by PM. New valve ID is 1-SW-V675. Calculation resolved issue	134
10	1-SW-V211	96C1925-R-01	Outlier 10. Yoke is ductile iron. Valve will be replaced and moved per PM 91-071. Evaluation needed.	Valve replaced by PM. New valve ID is 1-SW-V680. Calculation resolved issue	135

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
10	1-SW-V212	96C1925-R-01	Outlier 10. Yoke is ductile iron. Valve will be replaced and moved per PM 91-071. Evaluation needed	Valve replaced by PM. New valve ID is 1-SW-V661. Calculation resolved issue	136
10	1-SW-V213	96C1925-R-01	Outlier 10. Yoke is ductile iron. Valve will be replaced and moved per PM 91-071. Evaluation needed	Valve replaced by PM. New valve ID is 1-SW-V662. Calculation resolved issue	137
10	1-SW-V255MO	96C1925-R-01	Outlier 10. Valve yoke material is undetermined. (See note for 2-SW-V255)	Calculation resolved issue	138
11	1-E11-F006B	96C1925-R-01	Outlier 11. Operator height and weight issue. This valve was found acceptable by the SRT. However, due to similarities to outlier valves, this one will also be evaluated.	Calculation resolved issue	63
11	1-E11-F006D	96C1925-R-01	Outlier 11. Operator height and weight issue. This valve was found acceptable by the SRT. However, due to similarities to outlier valves, this one will also be evaluated.	Calculation resolved issue	64
11	1-E11-F008	96C1925-R-01	980 lb. operator weight exceeds the 750 lb. GIP limit and the operator height is at the GIP limit. See sketch in SEWS.	Calculation resolved issue	65
11	1-E11-F009	96C1925-R-01	Outlier 11. Operator weight exceeds GIP allowable, evaluation required. Pipe size is 20"	Calculation resolved issue	66
11	1-E11-F015A	96C1925-R-01	Outlier 11. The SRT questions the pre-screening weight value of 2250 lb. This should be verified and the valve stresses evaluated. See SEWS for sketch.	Calculation resolved issue	67
11	1-E11-F017A	96C1925-R-01	Outlier 11. Weight should be determined and valve stresses evaluated. See SEWS for sketch.	Calculation resolved issue	68
11	1-E41-F006	96C1925-R-01	Outlier 11. Valve meets GIP guidelines. However, since this is the same as 2-E41-F006 which was identified as an outlier, it to will be evaluated.	Calculation resolved issue	73

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
11	1-E41-F059	96C1925-R-01	Outlier 11. Valve operator weight exceeds the GIP guidelines.	Calculation resolved issue	76
12	1-CAC-SV-4345	250401-C-02	Outlier 12. The pipe mounting is 3/4" diameter which is less than the GIP minimum of 1" diameter.	Calculation resolved issue	52
13	1-VA-ISOL-DMP-CB	96C1925-R-01	Outlier 13. The linkage mechanism that holds the damper open must be investigated for seismic capacity.	Calculation resolved issue	156
13	1-VA-PS-1026	96C1925-R-01	Outlier 13. Capacity vs. Demand evaluation needed.	Calculation resolved issue	158
13	1-VA-PS-1026A	96C1925-R-01	Outlier 13. Need capacity/demand evaluation.	Calculation resolved issue	159
13	1-VA-SV-1026	96C1925-R-01	Outlier 13. Need capacity vs demand evaluation.	Calculation resolved issue	161
13	1-VA-SV-1026A	96C1925-R-01	Outlier 13. Item is mounted higher than 40' above grade, frequency may fall within the spectra exceedance range. Further evaluation required. Need capacity/demand evaluation.	Calculation resolved issue	162
13	1-VA-TC-1026	96C1925-R-01	Outlier 13. Capacity vs Demand evaluation needed.	Calculation resolved issue	163
14	1-VA-1D-SF-CB	96C1925-R-01	Outlier 14. The support is flexible in the axial fan direction. Seismic capacity vs. demand is a concern due to the elevation and the frequency being less than 8 Hz.	Calculation resolved issue	151
14	2-VA-2D-SF-CB	96C1925-R-01	Outlier 14. Capacity vs demand analysis needed, severely corroded anchorage	Calculation resolved issue	205.1

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
14	2-VA-2D-SF-CB	96C1925-R-01	Outlier 14. Analysis of support frame which is flexible in axial direction is required	Calculation resolved issue	205.2
14	2-VA-2E-SF-CB	96C1925-R-01	Outlier 14. Capacity vs demand analysis needed for severely corroded anchorage	Calc resolved issue, anchorage replaced per 96AHQIL	207.1
14	2-VA-2E-SF-CB	96C1925-R-01	Outlier 14. Analysis of support frame which is flexible in axial direction is required	Calc resolved issue	207.2
19	1-SW-TY-4887	96C1925-R-01	Outlier 19. Frequency is undetermined, further evaluation is required. Anchorage judged acceptable.	Calculation resolved issue	116
19	1-SW-TY-4888	96C1925-R-01	Outlier 19. Frequency is undetermined, further evaluation is required. Anchorage judged acceptable.	Calculation resolved issue	117
19	1-SW-TY-4889	96C1925-R-01	Outlier 19. Frequency is undetermined, further evaluation is required. Anchorage judged acceptable.	Calculation resolved issue	118
19	1-SW-TY-4890	96C1925-R-01	Outlier 19. Frequency is undetermined, further evaluation is required. Anchorage judged acceptable.	Calculation resolved issue	119
19	1-VA-FS-1026	96C1925-R-01	Outlier 19. Item is mounted more than 40' above grade, further evaluation is required. Anchorage judged acceptable	Calculation resolved issue	153
19	1-VA-KS-1026	96C1925-R-01	Outlier 19. Item is mounted more than 40' above grade, further evaluation is required. Anchorage judged adequate due to low load and tug test.	Calculation resolved issue	157
19	1-VA-TE-1299-1	96C1925-R-01	Outlier 19. Item is mounted more than 40' above grade and frequency is undetermined. Further evaluation is required.	Calculation resolved issue	164

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
19	1-VA-TT-1026	96C1925-R-01	Outlier 19. Item is mounted more than 40' above grade and has an undetermined frequency. Further evaluation is required.	Calculation resolved issue	165
19	1-VA-TT-1299-1	96C1925-R-01	Outlier 19. Item is mounted more than 40' above grade and has an undetermined frequency. Further evaluation is required.	Calculation resolved issue	166
19	1-VA-ZS-1026	96C1925-R-01	Outlier 19. Item is mounted more than 40' above grade, further evaluation is required.	Calculation resolved issue	168
24	1-H12-P601	1SEIS-0029	Outlier 24. Cantilevered components including strip chart recorders.	Calculation resolved issue	88.3
24	1-H12-P603	1SEIS-0029	Outlier 24. Cantilevered components including strip chart recorders.	Calculation resolved issue	89.2
24	1-H12-P612	1SEIS-0029	Outlier 24. Cantilevered components (not strip chart recorders) require review.	Calculation resolved issue	95.2
24	1-H12-P614	1SEIS-0029	Outlier 24. The cantilevered strip chart recorder will be reviewed.	Calculation resolved issue	97
24	1-IR-RB-4	1SEIS-0029	Outlier 24. Strip chart recorder and annunciator readout require additional review.	Calculation resolved issue	112.2
24	1-XU-2	1SEIS-0029	Outlier 24. Cantilevered items on cabinet will be reviewed.	Calc resolved issue.	170.1
24	1-XU-3	1SEIS-0029	Outlier 24. Cantilevered items on cabinet will be reviewed.	Calculation resolved issue	175.1

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
25	1-CAC-TY-4426-1	2SEIS-0017	Outlier 25. Programmable Controllers are present, need evaluation.	Calculation resolved issue	53.1
25	1-CAC-TY-4426-2	2SEIS-0017	Outlier 25. Programmable Controllers are present, need evaluation.	Calculation resolved issue	54.2
26	1-C11-125	250401-C-05	Outlier 26. Evaluation of the accumulator connection to the frame is required. Ensure capacity at top connection of outer HCU frames to braced inner row frames is sufficient.	Calculation resolved issue	44
26	1-C11-125	250401-C-05	Outlier 26. Corrosion at the base of the HCU frames should be evaluated.	Calculation resolved issue	44.1
26	1-C11-LDSH-129	250401-C-05	Outlier 26. Load path for this item runs through the accumulator to the rack. Adequacy of the accumulators load path will demonstrate this item's adequacy	Calculation resolved issue	46
26	1-C11-PSL-130	250401-C-05	Outlier 26. Accumulator mounting evaluation required	Calculation resolved issue	47
28	1-E11-B001A	250401-C-06	Outlier 28. Confirmation of anchorage needed. Mounting is generally in accordance with plant drawings.	Calculation resolved issue	60
E2	1-1CA	2SEIS-0021	There is a spray concern with a nearby fire protection sprinkler.	Calculation resolved issue	12.1
E2	1-1CB	2SEIS-0021	There is a spray concern with a nearby fire protection sprinkler.	Calculation resolved issue	13.1
E2	1-B21-TE-N004K	250401-C-18	The item is 3/4" below a spring can pipe support (measurements were taken in the spring can's 'cold position'). Need to evaluate potential interaction. In Drywell	Calculation resolved issue	43

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-CAC-TY-4426-2	250401-C-20	There is a concern with the capacity of overhead cable trays which may cause impact.	Calculation resolved issue	54.3
E2	1-H12-P609	250401-C-20	Address overloaded cable tray concern.	Calculation resolved issue	92.2
E2	1-H12-P610	250401-C-20	Address overloaded cable tray concern.	Calculation resolved issue	93.3
E2	1-H12-P611	250401-C-20	Address overloaded cable tray concern.	Calculation resolved issue	94.2
E2	1-H12-P612	250401-C-20	Address overloaded cable tray concern.	Calculation resolved issue	95.1
E2	1-H12-P613	250401-C-20	Potential interaction with overhead items and overloaded cable tray support system concern.	Calculation resolved issue	96.1
E2	1-H12-P614	250401-C-20	The generic overloaded cable tray concern	Calculation resolved issue	97.1
E2	1-H12-P615	ESR 96-00407 AI #1	PC cards / rack needs positive restraint.	Action item resolved issue	98.1
E2	1-H12-P615	250401-C-20	Generic overhead cable tray interaction and fall/ impact potential.	Calculation resolved issue	98.2
E2	1-H12-P616	250401-C-20	The generic overhead cable tray concern	Calculation resolved issue	99

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SFWS_ID
E2	1-H12-P617	250401-C-20	Generic overloaded cable tray concerns to be addressed	Calculation resolved issue	100
E2	1-H12-P618	250401-C-20	Generic overloaded cable tray concerns will be addressed, suspended conduit, cable tray, lighting systems.	250401-C-20 addressed overloaded cable trays, embedded unistrut failure. 250401-C-023 addresses overhead lighting. See 0SEIS-1023 for light fixture impacts.	101.1
E2	1-H12-P620	250401-C-20	Generic overloaded cable tray concerns to be addressed	Calculation resolved issue	102.2
E2	1-H12-P622	250401-C-20	Generic overloaded cable tray concerns to be addressed	Calculation resolved issue	103.2
E2	1-H12-P624	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	105.3
E2	1-H12-P626	250401-C-20	Generic overloaded cable tray concerns to be addressed	Calculation resolved issue	106
E2	1-H12-P627	250401-C-20	General overhead concern relative to suspended conduit, cable tray and lighting systems	250401-C-20 addressed overloaded cable trays, embedded unistrut failure. 250401-C-023 addresses overhead lighting. See 0SEIS-1023 for light fixture impacts.	107.2
E2	1-H12-P628	250401-C-20	Generic overloaded cable tray concerns. Suspended conduit, cable tray and lighting systems	250401-C-20 addressed overloaded cable trays, embedded unistrut failure. 250401-C-023 addresses overhead lighting. See 0SEIS-1023 for light fixture impacts.	108
E2	1-H12-P630	250401-C-20	Generic overloaded cable tray collapse concerns.	Calculation resolved issue	109.1
E2	1-H21-P021	1SEIS-0030	Spray concern exists with nearby fire protection head.	Calculation resolved issue	110

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-VA-1A-CC-CB	250401-C-14	Elevation is greater than 40' above grade, the frequency is unknown. Capacity vs demand evaluation.	Calculation resolved issue	143
E2	1-VA-1A-EHE-CB	250401-C-14	Capacity vs. demand is unknown. This item is in the same housing with cooling coil 1-VA-1A-CC-CB	Calculation resolved issue	145
E2	1-VA-1B-BFIV-RB	250401-C-10	A trolley which can impact an attached conduit needs to be restrained or resolved.	Calculation resolved issue	146.1
E2	1-VA-TZ-2	1SEIS-0030	There is a water impingement concern (IPEEE). Need to address the water spray concern.	Calculation resolved issue	167
E2	1-XU-13	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	169.1
E2	1-XU-24	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	171.2
E2	1-XU-25	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	172
E2	1-XU-27	250401-C-20	Suspended lighting could impact cabinet. Also poorly supported cable tray.	250401-C-20 addressed overloaded cable trays, embedded unistrut failure. 250401-C-023 addresses overhead lighting. See 0SEIS-1023 for light fixture impacts.	173
E2	1-XU-27	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	173.2
E2	1-XU-28	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	174

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-XU-28	0SEIS-1023	Suspended lighting could impact cabinet and should be restrained	Calculation resolved issue	174.2
E2	1-XU-39	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	176.1
E2	1-XU-40	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	177.1
E2	1-XU-50	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	179
E2	1-XU-53	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	181
E2	1-XU-56	250401-C-20	Generic overloaded cable tray concerns are to be resolved	Calculation resolved issue	182.1
E2	1-XU-57	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	183.1
E2	1-XU-58	250401-C-20	Generic overhead cable tray concerns are to be resolved	Calculation resolved issue	184.2
E2	1-XU-7	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	192.1
E2	1-XU-73	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	193

Table 1: Outliers Resolved by Calculations

OUT_NEW	EQUIP_ID	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-XU-9	250401-C-20	Generic overloaded cable tray concerns	Calculation resolved issue	198.1
E2	2-VA-2A-EHE-CB	250401-C-14	Capacity vs. demand evaluation required	Calculation resolved issue	200
E2	2-VA-2A-EHE-CB	250401-C-14	Verification of internal anchorage and load path required. Same housing with cooling coil 2-VA-2A-CC-CB	Calculation resolved issue	200.1
E2	2-VA-2A-RAF-CB	250401-C-14	Roll filter frame is corroded	Calculation resolved issue. Has revised SEWS	201
E2	2-VA-2A-RAF-CB	250401-C-14	Anchorage and structural load path are corroded, need evaluation	Calculation resolved issue. Has revised SEWS	201.1
E2	2-VA-2A-RAF-CB	250401-C-14	Capacity vs. demand analysis required	Calculation resolved issue	201.2
E2	2-VA-2B-EHE-CB	250401-C-14	Capacity vs. demand evaluation required.	Calculation resolved issue	203
E2	2-VA-2B-EHE-CB	250401-C-14	Verification of internal load path and anchorage required. This item has the same housing as 2-VA-2B-CC-CB	Calculation resolved issue, anchor unit to floor	203.1
RW-3	SUPPORT FRAME	250401-C-07	Outlier RW-3. Floor mounted cable support frames which have occasional lateral braces require verification of both lateral and longitudinal capacity.	Resolved by calculation.	208

Table 2: Outliers Resolved With Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
24	1-H12-P601		97AEUW9		Bailey strip chart recorders, (confirm positive latching on recorders)	See WRUJO for inspection results	88
24	1-H12-P603		97AEUW9		Bailey strip chart recorders, (confirm positive latching on recorders)	See WRUJO for inspection results	89.3
E2	1-1E5	97ACQYM		96-00597	Housekeeping will resolve the concern with fire protection equipment interaction.	Fire extinguisher mounts replaced. Pressurized water extinguisher was removed by LPU	15.1
E2	1-1XC	COMPLETE			A big, green cart nearby poses an impact hazard and will be resolved by housekeeping.	Cart was removed	23
E2	1-1XC		TT-005076	96-00407	Need to repair the door hinge.	Compartment door at panel DQ4 was fixed per trouble tag TT-005076	23.1
E2	1-1XD	COMPLETE			Pendulum lights present an impact concern and should be raised via a WRUJO. The SRT judged the anchorage to be acceptable with the top braces but this MCC was included in calculation C-022 for completeness.	Light fixture was replaced previously. Field inspection showed light fixture is now above MCC and will not impact MCC.	24
E2	1-1XDB		97AEUW5		Install missing mounting screw at relay B49 in compartment BN7.	Install mounting screw during outage while MCC is deenergized.	26.1
E2	1-1XF	COMPLETE			An adjacent table with instruments (video equipment) poses an interaction concern that will be resolved by housekeeping.	Table and video monitoring equipment removed by OPS.	28
E2	1-1XM	COMPLETE			Nearby trash can could impact the MCC.	Trash can removed previously. (OAI-114) Confirmed it was removed.	31.1

Table 2: Outliers Resolved With Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-B21-PNL-QV9	COMPLETE			A wheeled bottle cart chained nearby will be resolved by housekeeping.	Bottle cart removed by OPS per OAI-114 step 6.2.2 "Housekeeping".	42.1
E2	1-E1		97ACQYH		Repair to door hardware required	Door hardware repaired.	59
E2	1-E1		96AHQI2		Open 'S' hooks on chain hung light fixtures need to be closed.	Closed S-Hooks	59.1
E2	1-E2		97ACQYI		Repair to door hardware required	Door hardware repaired	70
E2	1-E2		96AHQI2		Open 'S' hooks on chain hung light fixtures need to be closed	Closed S-Hooks	70.1
E2	1-E41-LSL-N003		97AGYKF		A WR/JO is needed to tighten the instrument in place.	Tighten instrument.	77
E2	1-H12-P609		96AHQI2		Overhead lights have open 'S' hooks.	S-Hooks on light fixtures were closed	92
E2	1-H12-P610		96AHQI2		Overhead lights have open 'S' hooks.	S-Hooks on light fixtures were closed	93.1
E2	1-H12-P610		97AGYKN		Doors do not latch tightly	Loose doors adjusted	93.2

Table 2: Outliers Resolved With work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-H12-P611		96AHQI2		Overhead lights have open 'S' hooks	S-Hooks on light fixtures were closed	94
E2	1-H12-P617		96AHQI2		Light fixtures with Open S-hooks need to be closed	S-Hooks on light fixtures were closed	100.2
E2	1-H12-P620		96AHQI2		Light fixtures have open S-hooks that need to be closed	S-Hooks on light fixtures were closed	102.1
E2	1-H12-P622		96AHQI2		Light fixtures with open S-hooks	S-Hooks on light fixtures were closed	103.3
E2	1-H12-P623		97AGYKN		Loose doors and check for missing hinges or door latches	Loose doors adjusted, checked for missing components	104.2
E2	1-H12-P624		96AHQI2		Close open S hooks on suspended lighting	S-Hooks on light fixtures were closed	105
E2	1-H12-P626		96AHQI2		Light fixtures with open 'S' hooks to be resolved	S-Hooks on light fixtures were closed	106.1
E2	1-H12-P630			96-00407 AI #2	An ESR is required to resolve the concern of unrestrained circuit boards at south side of cabinets.	Resolved by ESR Action Item #2	109.2
E2	1-IA-PSL-3597	COMPLETE			Housekeeping will resolve the issue of maintenance carts chained nearby that could impact and damage this item. They should be relocated.	Maintenance carts were removed / relocated. (OAI-114)	111

Table 2: Outliers Resolved With Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-SW-PS-1175C		97AGYK8		Need to close or replace open eye hook on light fixture.	Close or replace eye-hooks	114
E2	1-TCR-1-HOLLYWOOD	COMPLETE			Housekeeping will resolve the concern regarding several nearby items which pose impact concerns.	Field inspection showed items were removed (DAI-114) Housekeeping	139
E2	1-TCR-2-HOLLYWOOD	COMPLETE			Housekeeping will resolve the concern regarding several nearby items which pose impact concerns.	Field inspection showed items were removed. (DAI-114) Housekeeping	140
E2	1-VA-1D-CU-CB		97AHUT1	97-00757	Elevation is greater than 40' above grade, fundamental frequency is unknown and the item is not anchored. ESR will replace units	ESR 9600372 originally provided seismic supports. Unit later replaced by ESR 96-00757. New units qualified by testing to IEEE 344-75.	149
E2	1-VA-PS-1026A		TT-035887		Mounting screw needs to be fixed.	Missing screws installed per trouble tag # TT-035887	160
E2	1-XU-2	COMPLETE			Carpet tiles above panels (generic to all horseshoe panels) are not secured and could fall (inside the CR above switches).	Carpet tiles are now secured in place with metal strips top & bottom. Strips are screwed in place.	170.2
E2	1-XU-3	COMPLETE			Carpet tiles above panels (generic to all horseshoe panels) are not secured and could fall. (inside CR, above switches).	Carpet tiles are now secured in place with metal strips top & bottom. Strips are screwed in place.	175.2
E2	1-XU-4168		97AGYKC		Need WR/JO to resolve the bolt tightening issue	Replaced bolt with new	178
E2	1-XU-51	COMPLETE			Carpet tiles overhead could fall (inside CR above switches)	Carpet tiles are now secured in place with metal strips top & bottom. Strips are screwed in place.	180.1

Table 2: Outliers Resolved With Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-XU-63	96AECB2			Housekeeping will resolve concerns related to step ladder and wheeled cart found near the cabinet.	Ladder and cart removed by OPS per OAI-114 "Housekeeping"	185
E2	1-XU-64	COMPLETE			Housekeeping will resolve concerns related to step ladder and wheeled cart found near the cabinet. (See XU-63)	OPS removed ladder & cart from area per OAI-114 "Housekeeping"	186
E2	1-XU-65		96AHQI2		Close the open 'S' hooks on suspended lights.	Closed S-Hooks per WRJO	188
E2	1-XU-65	COMPLETE			Secure nearby bookcases and filing cabinets, to be resolved by housekeeping.	Bookcases and rack moved by OPS per OAI-114, Housekeeping.	188.1
E2	1-XU-66		96AHQI2		Repair the open 'S' hooks on suspended lights.	S-Hooks on light fixtures were closed	189
E2	1-XU-66	COMPLETE			Bookcases and filing cabinets are close to cabinet, to be resolved by housekeeping.	Moved bookcases and coat rack by OPS per step 6.2.2 of OAI-114 "Housekeeping"	189.4
E2	1-XU-67		96AHQI2		Repair the open 'S' hooks on suspended lights.	S-Hooks on light fixtures were closed	190.2
E2	1-XU-67	COMPLETE			Secure bookcases and filing cabinets away from cabinets, to be resolved by housekeeping.	Bookcases and rack moved by OPS per OAI-114, Housekeeping.	190.3
E2	1-XU-68		96AHQI2		Repair the open 'S' hooks on suspended lights.	S-Hooks on light fixtures were closed	191.1

Table 2: Outliers Resolved With Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	SEWS_ID	ESR	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-XU-68	COMPLETE			Secure bookcases and filing cabinets away from cabinets, to be resolved by housekeeping.	Bookcases and rack moved by OPS per OAI-114. Housekeeping.	191.2
E2	2-VA-2D-CU-CB		97AHUT1	96-00757	Framing members for wall have been flame cut, requires disposition	Unit later replaced by ESR 96-00757.	204
E2	2-VA-2D-CU-CB		97AHUT1	96-00757	External corrosion on air handling unit.	Unit replaced by ESR 96-00757.	204.1
E2	2-VA-2D-CU-CB		97AHUT1	96-00757	Item is not anchored to floor, needs to be anchored	ESR 9600372 originally provided seismic supports. Unit later replaced by ESR 96-00757. New units qualified by testing to IEEE 344-75.	204.2
E2	2-VA-2D-CU-CB		97AHUT1	96-00757	Elevation is greater than 40' above grade, capacity vs. demand analysis required. Note, ESR 9600757 will replace unit	ESR 9600372 originally provided seismic supports. Unit later replaced by ESR 96-00757. New units qualified by testing to IEEE 344-75.	204.3
E2	2-VA-2E-CU-CB		97AHUT1	96-00757	Elevation is greater than 40' above grade, fundamental frequency is unknown and the item is not anchored. ESR will replace units	ESR 9600372 originally provided seismic supports. Unit later replaced by ESR 96-00757. New units qualified by testing to IEEE 344-75.	206
E2	2-VA-2E-CU-CB		97AHUT1	96-00757	Capacity vs. demand analysis required.	ESR 9600372 originally provided seismic supports. Unit later replaced by ESR 96-00757. New units qualified by testing to IEEE 344-75.	206.1
E2	2-VA-2E-CU-CB		97AHUT1	96-00757	External corrosion on air handling unit	Unit later replaced by ESR 96-00757.	206.2
E2	2-VA-2E-CU-CB		97AHUT1	96-00757	Framing members have been flame cut, requires disposition	Unit later replaced by ESR 96-00757.	206.3

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
04	1-1XM		96AECB7	96-00407	1SEIS-1010	Outlier 04. Interaction concerns include a 5/8" gap to the wall. Potential impact with wall.	Provided support to concrete wall to eliminate interaction concern	31
06	1-E5-FB5-XFMR		97AEUW3	97-00268	0SEIS-1022	Outlier 06. Replace E-Bus transformer mounting bolts.	Replace transformer mounting bolts	79
06	1-E6-FB6-XFMR		97AEUW4	97-00268	0SEIS-1022	Outlier 06. Replace E-Bus transformer mounting bolts.	Replace transformer mounting bolts	83
17	1-31A		96AFNY2	96-00407	1SEIS-1010	Outlier 17. Saw-cut unistrut support and spalled concrete around one anchor. Panel passed tug test.	Provided new anchor bolts to concrete which eliminates analysis of existing deficient support.	32
E2	1-1A-1-125VDC-CHGR		96AFNY3	96-00407	1SEIS-1010	An ESR is needed to bolt charger 1A-1, 1A-2, 2A-1 and 2A-2 together to prevent pounding.	Attached charger 1A-1 to 1A-2 at the top	2
E2	1-1A-2-125VDC-CHGR		96AFNY3	96-00407	1SEIS-1010	An ESR is needed to bolt charger 1A-2 to 1A-1 together to prevent pounding.	Attached to charger 1A-1	4
E2	1-1A-2-125VDC-CHGR		97AGYKU	97-00268	1SEIS-1010	WRJO needed to bolt battery charger 1-1A-2-125VDC-CHGR and 1-21A-1-24VDC-CHARGER together.	Bolt chargers together	4.1
E2	1-1A-250VDC		97AGYKA	97-00268	0SEIS-1022	WRJO is needed to bolt the two shipping sections together.	Install plate at top	5
E2	1-1A-UPS		97AEUW7	97-00268	0SEIS-1022	Small gap exists between panel and concrete column. This is a pounding concern. Bolt to wall or provide bumpers.	Attach panel to concrete column with structural angles.	6.1

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-1B-1-125VDC-CHGR		96AFNY4	96-00407	1SEIS-1010	An ESR is needed to bolt charger 1B-1, 1B-2, 2B-1 and 2B-2 together to prevent pounding.	Attached to charger 1-1B-2 at top	8
E2	1-1B-2-125VDC-CHGR		96AFNY4	96-00407	1SEIS-1010	An ESR is needed to bolt charger 1B-1, 1B-2, 2B-1 and 2B-2 together to prevent pounding.	Attached to charger 1-1B-1 at the top	10
E2	1-1B-250VDC		96AECB3	96-00407	1SEIS-1010	WR/JJO is needed to bolt the two shipping sections together.	Attached two shipping sections together at panels F & G.	11
E2	1-1D-120V		97AGYKD	97-00268	0SEIS-1022	Two, 3" conduits entering the top of the panel need prayer clamps to connect them to the spacer.	Missing clamps added	14
E2	1-1E5		97AGYKL	97-00268	0SEIS-1022	Missing Unistrut bolts should be replaced via WR/JJO. Anchor conduit frame to existing column.	Will attach frame to column, add brackets	15
E2	1-1E6	97ACQYM		96-00597	250401-C-09	Housekeeping will resolve the concern with fire protection equipment interaction.	Fire extinguisher mounts identified in calc were replaced. Pressurized water extinguisher was removed by LPU.	16
E2	1-1E6		97AGYKM	97-00268	0SEIS-1022	Missing Unistrut bolts should be replaced via WR/JJO. Anchor conduit frame to existing column.	Will attach frame to column, add brackets	16.1
E2	1-1PA		97AGYKW	97-00268	0SEIS-1022	WR/JJO required to tighten conduit support anchors.	Loose bolt tightened	17.2
E2	1-1XA		96AECB4	96-00407	1SEIS-1010	Potential impact between attached conduit and overhead cable tray constitutes an interaction concern.	Removed cable tray rung to eliminate interaction concern.	19

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-1XA		96AECB4	96-00407	1SEIS-1010	Individual panels within shipping sections are bolted together but the two shipping sections are not adequately connected.	Shipping sections are bolted together with plates and bolts, added more fasteners (Z fittings) to attach unistrut to top of cabinet.	19.1
E2	1-1XA-2	97AGYK3		97-00268	0SEIS-1022	Potential impact with a tool box is the interaction concern to be resolved by housekeeping.	Mounted tool box away from MCC	20
E2	1-1XB		96AECB5	96-00407	1SEIS-1010	There are missing connection bolts between the MCC panels	Attached shipping sections together at the top, modified attachment of existing inadequate cable tray supports to top of MCC's similar to 1-1XA.	21
E2	1-1XB-2		97AEUW5	97-00268	250401-C-011	There is a pounding concern with adjacent cabinet (Node L16/1-VA-ES-3710) and MCC 1-1XDB which are in-line with MCC 1-1XB-2	Attach structural angles at top to connect cabinet and MCC's together	22
E2	1-1XDA		96AECB8	96-00407	1SEIS-1010	A WR/JO should be initiated to replace a panel connection bolt.	Attached two shipping sections at panels F & G together	25
E2	1-1XDB		97AEUW5	97-00268	250401-C-11	An ESR will be needed to resolve the following concern: the cabinet to the east is close enough to cause a pounding hazard.	Attach structural angles at top to adjacent cabinet. Also same issue described for MCC 1-1XB-2. Also add plate at top of MCC per 0SEIS-1022.	26
E2	1-1XDB		97AEUW5	97-00268	250401-C-11	Interaction between cable tray and rigid conduits entering top of cabinet.	Replace rigid connection with flex conduit.	26.2
E2	1-1XG		97AGYK9	97-00268	0SEIS-1022	A WR/JO is needed to install panel connection bolts to prevent pounding.	Attach plate at top of MCC. Revised SEWS in 1SEIS-0028.	29.1
E2	1-1XL		96AECB6	96-00407	1SEIS-1010	A rigid conduit exiting the top poses an impact hazard with overhead items	Provided support to concrete wall to eliminate interaction concern	30

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-B21-PNL-QV9		97AGYKK	97-00268	0SEIS-1022	A chain hung light fixture can impact the top mounted conduit support frame on the cabinet	Relocate light fixture away from cabinet	42
E2	1-C11-A001A-N2		97AGYKE	97-00268	0SEIS-1022	N2 tanks are mounted to unrestrained handcarts, these will have to be modified to provide restraint via an ESR. SEWS should be revised to change the equipment class to generic	Installed mounts on wall to attach tanks Revised SEWS in 1SEIS-0028	45
E2	1-C71-S001A		97AGYKH	97-00268	250401-C-15	An ESR is required to address the adequacy of the 1" thick vibration isolator pads	Add lateral restraint (bumper pads) at corners of equipment	48
E2	1-C71-S001B		97AGYKI	97-00268	250401-C-15	An ESR is required to address the adequacy of the 1" thick vibration isolator pads	Add lateral restraint (bumper pads) at corners of equipment	49
E2	1-CAC-TY-4426-2		96AECB2	96-00407	1SEIS-1010	Attach cabinet to adjacent cabinet 1-H12-P624 with bolting	Added bolting to attach to adjacent cabinet	54
E2	1-E41-F025		96AFNY5	96-00407	1SEIS-1010	Poorly supported 1/4" air tubing requires evaluation/modification via an ESR. Otherwise, the valve meets GIP guidelines	Provided additional support for tube track	75
E2	1-H12-P601		96AFNY1	96-00407	1SEIS-1010	A WRUJO is required to repair loose doors and to install a missing top bolt between 1-H12-P601 and 1-H12-P603	Door repairs and installed missing bolt to 1-H12-P603	88.1
E2	1-H12-P603		96AFNY1	96-00407	1SEIS-1010	Install missing bolt between 1-H12-P601 and P603	Bolt installed	89
E2	1-H12-P603		96AFNY1	96-00407	1SEIS-1010	A WRUJO is required to repair loose doors. Additionally, the doors require push rods	Door repairs made	89.4

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-H12-P606		96AFNY1	96-00407	1SEIS-1010	Panel on line up requires shims (impact potential) and door repairs	Loose doors adjusted per 96AFNY1. Cabinet P606 is already bolted to P608 per SEWS	90
E2	1-H12-P608		96AECB2	96-00407	1SEIS-1010	Panel line-up need shims (impact potential) Will attach P607 to P608 by bolting them together	P608 and P607 cabinets were bolted together	91.1
E2	1-H12-P608		96AFNY1	96-00407	1SEIS-1010	Loose doors need repaired.	Loose doors adjusted	91.2
E2	1-H12-P609		96AFNY1	96-00407	1SEIS-1010	Doors do not latch tightly	Loose doors adjusted	92.1
E2	1-H12-P611		96AFNY1	96-00407	1SEIS-1010	Doors to not latch tightly.	Loose doors adjusted	94.3
E2	1-H12-P614		96AECB2	96-00407	1SEIS-1010	Provide bolting between cabinets P614 & XU-6. Gap at TSI-XY-637.	Bolting added between cabinets P614 and XU-6. Plates bolted at top of cabinet line-up P614/637/P651.	97.2
E2	1-H12-P614		96AFNY1	96-00407	1SEIS-1010	A WR/JO is needed to repair door to replace missing hinge pin	Loose doors adjusted, pin was added	97.3
E2	1-H12-P615		96AFNY1	96-00407	1SEIS-1010	A WR/JO is needed to adjust door	Loose doors adjusted	98
E2	1-H12-P616		96AFNY1	96-00407	1SEIS-1010	Loose doors and checking for missing hinges or door latches	Loose doors adjusted	99.1

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-H12-P617		96AFNY1	96-00407	1SEIS-1010	Loose doors and check for missing hinges or door latches	Loose doors adjusted	100.1
E2	1-H12-P618		96AECB2	96-00407	1SEIS-1010	WR/JOs are also needed to install panel connections for panels on this lineup.	Cabinets were bolted together	101
E2	1-H12-P618		96AFNY1	96-00407	1SEIS-1010	Generic door problems of loose doors and checking for missing hinges or door latches	Loose doors adjusted, checked for missing components	101.2
E2	1-H12-P620		96AFNY1	96-00407	1SEIS-1010	Loose doors and check for missing hinges or door latches	Loose doors adjusted, checked for missing components	102
E2	1-H12-P622		96AFNY1	96-00407	1SEIS-1010	Loose doors and check for missing hinges or door latches	Loose doors adjusted, checked for missing components	103.1
E2	1-H12-P623		96AECB2	96-00407	1SEIS-1010	Panel line-up top bolting / shimming	Cabinets were bolted together with XU-54/55/70 line-up with plates	104
E2	1-H12-P624		96AFNY1	96-00407	1SEIS-1010	Replace a missing push rod on the door latches	Loose doors adjusted, checked for missing components	105.1
E2	1-H12-P624		96AECB2	96-00407	1SEIS-1010	Bolt cabinet to 1-CAC-TY-4426-2	Cabinets were bolted together	105.2
E2	1-H12-P626		96AFNY1	96-00407	1SEIS-1010	Generic door problems of loose doors and checking for missing hinges or door latches	Loose doors adjusted, checked for missing components	106.2

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-H12-P627		96AECB2	96-00407	1SEIS-1010	WR/JOs are also needed to install panel connections for panels on this lineup.	Cabinets were bolted together	107
E2	1-H12-P627		96AFNY1	96-00407	1SEIS-1010	Generic door problems of loose doors and checking for missing hinges or door latches	Loose doors adjusted, checked for missing components	107.3
E2	1-H12-P628		96AFNY1	96-00407	1SEIS-1010	Generic door problems of loose doors and checking for missing hinges or door latches	Loose doors adjusted, checked for missing components	108.2
E2	1-H12-P628		96AECB2	96-00407	1SEIS-1010	WR/JOs are also needed to install panel connections for panels on this lineup.	Cabinets P628 and P653 were bolted together	108.3
E2	1-H12-P630		96AFNY1	96-00407	1SEIS-1010	Generic door problems of loose doors and checking for missing hinges or door latches	Loose doors adjusted, checked for missing components	109.4
E2	1-SW-PDIC-140		97AECT5		250401-C-17	WR/JO is required to restrain tubing	Tubing restrained	113
E2	1-TCR-3-HOLLYWOOD	COMPLETE			2SEIS-0027	Several nearby items and signs pose impact concerns, will be resolved by housekeeping	Signs removed, calc gives qualification for stanchions	141
E2	1-VA-1A-CC-CB		96AHQIM	97-00268	250401-C-14	Channel supports under the unit are corroded. Item is unanchored. Install new channel supports, bolting and anchor bolts	Replace channel section under unit	143.1
E2	1-VA-1A-EHE-CB		96AHQIM	97-00268	250401-C-14	Anchorage is corroded and unknown. Will replace anchor bolts, channel supports	Replace channel section under unit	145.1

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-VA-1D-SCDU-CB			96-00597 AI #3		Elevation is greater than 40' above grade and the frequency is unknown. Also an outlier for vibration isolators.	Non-seismic, non-safety related subcoolers are normally out of service per change to operating procedure OP-37. ESR 96-00597 Action Item # 3	150
E2	1-VA-1D-SF-CB		96AHQIJ	97-00268	0SEIS-0035	Severe anchorage corrosion should be resolved via a WRUJO.	Replace fan supports per ESR	151.1
E2	1-XU-24		96AECB2	96-00407	1SEIS-1010	Adjacent cabinets in this line-up may require bolting	Cabinet bolted to 1-XU-43	171.1
E2	1-XU-25		96AECB2	96-00407	SEIS-1010	Adjacent cabinets in this line-up may require bolting	Cabinet bolted to XU-9 and XU-40	172.2
E2	1-XU-27		96AECB2	96-00407	1SEIS-1010	Attach this cabinet to 1-XU-28.	Cabinet bolted to XU-28	173.1
E2	1-XU-28		96AECB2	96-00407	1SEIS-1010	Attach this cabinet to 1-XU-27 AND P630.	Cabinet bolted to XU-27 & P630	174.1
E2	1-XU-40		96AECB2	96-00407	1SEIS-1010	Adjacent cabinets in this line-up may require bolting	Cabinet bolted to XU-25 and XU-43	177.2
E2	1-XU-53		96AFNY1	96-00407	1SEIS-1010	Repair loose panel doors and check for missing hinges and door latches require repair	Loose doors adjusted, checked for missing components	181.2
E2	1-XU-58		96AFNY1	96-00407	1SEIS-1010	Repair loose panel doors and check for missing hinges and door latches	Loose doors adjusted, checked for missing components	184.3

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-XU-63			96-00407	1SEIS-1010	A WRUJO is needed to install bolts between this and 1-XU-64.	Cabinet bolted to XU-64	185.1
E2	1-XU-63		97AGYKK	9700268	0SEIS-1022	A WRUJO is required to resolve suspended light impact concern.	Restrain light fixtures.	185.2
E2	1-XU-64		97AGYKK	9700268	0SEIS-1022	A WRUJO is required to resolve suspended light impact concern. (same as XU-63)	Restrain light fixture.	186.2
E2	1-XU-64		96AECB2	96-00407	1SEIS-1010	A WRUJO is needed to install bolts between this and 1-XU-63.	Cabinet bolted to XU-63	186.3
E2	1-XU-65		96AFNY1	96-00407	1SEIS-1010	Repair panel door problems.	Loose doors adjusted, checked for missing components	187
E2	1-XU-65		96AECB2	96-00407	1SEIS-1010	A WRUJO is needed to bolt the cabinet to 1-XU-66	Cabinet bolted to 1-XU-66	187.2
E2	1-XU-66		96AFNY1	96-00407	1SEIS-1010	Repair panel door problems.	Loose doors adjusted, checked for missing components	189.1
E2	1-XU-66		96AECB2	96-00407	1SEIS-1010	Bolt cabinet to 1-XU-65 to 1-XU-66	Cabinet bolted to XU-65 and XU-67	189.3
E2	1-XU-67		96AECB2	96-00407	1SEIS-1010	Bolt the cabinet to 1-XU-67 to 1-XU-66 and 1XU-68	Cabinet bolted to XU-66 and XU-68	190

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	1-XU-68		96AECB2	96-00407	0SEIS-1010	Bolt cabinet to 1-XU-68 to 1-XU-75	Cabinet bolted to XU-68, XU-75	191
E2	1-XU-75		96AECB2	96-00407	1SEIS-1010	Bolting to adjacent cabinets should be attached 1-XU-79 and 1-XU-63	Cabinet bolted to XU-68 and XU-79	194.1
E2	1-XU-79		96AECB2	96-00407	1SEIS-1010	Bolting to adjacent cabinet 1-XU-75	Cabinet bolted to XU-75	197.1
E2	1-XU-9		96AECB2	96-00407	1SEIS-1010	Adjacent cabinets in this line-up may require bolting to 1-XU-25	Cabinet bolted to XU-25	198.3
E2	2-VA-2A-CC-CB		96AHQIN	97-00268	250401-C-14	External corrosion on air handling unit	Severely corroded base channel supports were replaced.	199
E2	2-VA-2A-CC-CB		96AHQIN	97-00268	250401-C-14	Channel supports under the unit are corroded. Item is unanchored. Install new channel supports, bolting and anchor bolts	Severely corroded base channel supports were replaced.	199.2
E2	2-VA-2B-CC-CB		96AHQIP	97-00268	250401-C-14	External corrosion on air handling unit	Severely corroded support base was replaced	202
E2	2-VA-2B-CC-CB		96AHQIP	97-00268	250401-C-14	Channel supports under the unit are corroded. Item is unanchored. Install new channel supports, bolting and anchor bolts	Severely corroded support base was replaced.	202.1
E2	2-VA-2D-SF-CB		96AHQIK	97-00268	0SEIS-0035	Severe anchorage corrosion should be resolved by WRJO	Replaced anchorage per ESR	205

Table 3: Outliers Resolved by Calculations and Work

OUT_NEW	EQUIP_ID	HOUSEKEEPING	WR_JO	ESR	CALC	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
E2	2-VA-2E-SF-CB		96AHQIL	97-00268	0SEIS-0035	Severe anchorage corrosion should be resolved by WRJO	Replaced anchorage per ESR	207

Table 4: Outliers Resolved With SEWS Revisions

OUT_NEW	EQUIP_ID	COMMENTS	RESOLUTION COMMENTS	SEWS_ID
01	1-D12-RE-N006A	Outlier 01. SEWS should be revised to change equipment class from 18 to 00 like the Unit 2 ion detectors. Item is acceptable as-is, no further action required.	Revised SEWS for equipment class per OSVS for Outlier 01 in 1SEIS-0028.	55
01	1-D12-RE-N006B	Outlier 01. SEWS should be revised to change equipment class from 18 to 00 like the Unit 2 ion detectors. Item is acceptable as-is, no further action required.	Revised SEWS for equipment class is required per OSVS for Outlier 01, see 1SEIS-0028.	56
01	1-D12-RE-N006C	Outlier 01. SEWS should be revised to change equipment class from 18 to 00 like the Unit 2 ion detectors. Item is acceptable as-is, no further action required.	Revised SEWS for equipment class is required per OSVS for Outlier 01, see 1SEIS-0028 for revised SEWS.	57
01	1-D12-RE-N006D	Outlier 01. SEWS should be revised to change equipment class from 18 to 00 like the Unit 2 ion detectors. Item is acceptable as-is, no further action required.	Revised SEWS for equipment class is required per OSVS for Outlier 01, in 1SEIS-0028.	58
E2	1-1A-1-125VDC-BAT	Suspect gaps between the batteries and the end rails for these racks.	Revised SEWS in 1SEIS-0028.	1
E2	1-1A-2-125VDC-BAT	Suspect gaps between the batteries and the end rails for these racks.	Revised SEWS in 1SEIS-0028.	3
E2	1-1B-1-125VDC-BAT	Suspect gaps between the batteries and the end rails for these racks.	Revised SEWS in 1SEIS-0028.	7
E2	1-1B-2-125VDC-BAT	Suspect gaps between the batteries and the end rails for these racks.	Revised SEWS in 1SEIS-0028.	9
E2	1-B21-F013B	Conduit reducer from 1" to 1/2" size questionable.	Inspection resolved issue. Revised SEWS.	33
E2	1-B21-F022C	There is an interaction concern for a 1/4" clearance with a Junction box.	Inspection resolved issue. Revised SEWS.	36.1
E2	2-VA-2A-CC-CB	Bolts attaching unit to plenum have missing bolts on the West side.	Revised SEWS in 1SEIS-0028. Inspection inside plenum showed holes were pre-drilled, but did not align with adjacent module. Holes were not used. Other bolts (not visible from outside of plenum) were verified.	199.1

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
GENERIC LETTER 87-02, "VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL
AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS, USI A-46"
(NRC TAC NOS. 69433 AND 69434)

CALCULATION NO. 2SEIS-0028, "USI A-46 SEISMIC EVALUATION AND
DOCUMENTATION RECORD FOR BNP-2"
(PARTIAL COPY)

CALCULATION TITLE AND APPROVAL COVER SHEET FORM OENP-303-1 (12/94)

SYSTEM# 9895

CALC. TYPE ESSQUG

CAROLINA POWER & LIGHT COMPANY

2SEIS-0028
CALCULATION NO.

USI A-46 SEISMIC EVALUATION AND DOCUMENTATION RECORDS FOR BNP-2
(TITLE INCLUDING STRUCTURES/SYSTEM/COMPONENT)

SQUG/BNP-UNIT 2
(PROJECT AND/OR PLANT NAME & APPLICABLE UNIT)

SAFETY RELATED : YES ☒ NO ☐
SEISMIC : ☒ ☐

APPROVAL

Rev. No.	Prepared By Date	Verified By Date	Resp. Manager Date
0	<i>D. J. McInt.</i> 10/11/97	<i>P. J. J. J.</i> 10-11-97	<i>M. J. J.</i> 10-11-97
		Method of Verification:	☒ Design Review ☐ Alternate Calculation ☐ Qualification Testing
		Method of Verification:	☐ Design Review ☐ Alternate Calculation ☐ Qualification Testing
		Method of Verification:	☐ Design Review ☐ Alternate Calculation ☐ Qualification Testing

Computed by: <i>David Smith</i>	Date: <i>10/11/97</i>	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 2SEIS-0028		
Checked by:	Date:		Pg. 2	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 2					

TABLE OF CONTENTS

<u>Subject</u>	<u>Page No.</u>
----------------	-----------------

LIST OF EFFECTIVE PAGES.....	1
TABLE OF CONTENTS	2
1.0 PURPOSE.....	3
2.0 LIST OF REFERENCES	3
3.0 ASSUMPTIONS.....	3
4.0 CONCLUSIONS.....	4
5.0 BODY OF CALCULATION	5

ATTACHMENTS

Page(s)

"A" (USI A-46 Resolution Final Tables).....	<i>67</i>
"B" (Revised SEWS Forms).....	<i>74</i>

Computed by: <i>[Signature]</i>	Date: 10/11/97	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 2SEIS-0028		
Checked by:	Date:		Pg. 3	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 2					

1.0 PURPOSE:

This evaluation contains a summary of resolutions of outliers and concerns, identified by the Seismic Review Team (SRT) during the USI A-46 walkdowns.

2.0 LIST OF REFERENCES

- 2.1 Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment Revision 2, corrected 2-14-92, and the associated Supplemental Safety Evaluation Report No. 2 (SSER No. 2), and The Seismic Qualification Utility Group (SQUG) Response to SSER No. 2, dated August 21, 1992.
- 2.1 Brunswick Nuclear Plant USI A-46 Seismic Evaluation Report, Revision 0, dated September 1995.
- 2.2 William R. Campbell Letter to The NRC, dated September 15, 1995, BSEP Unit Nos. 1 and 2 Docket Nos. 50-325 and 50-324/License nos. DPR-71 and DPR-62 Submittal of the Results of the Implementation of the Resolution of Unresolved Safety Issue A-46, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors" (TAC Nos. M69433 and M69434). Serial: BSEP 95-0485
- 2.3 C.S. Hinnant Letter to The NRC, dated July 11, 1997, "Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2 docket nos. 50-325 and 50-324/license nos. DPR-71 and DPR-62 Revision to Schedule for Resolution of Unresolved Safety Issue A-46 (TAC nos. M69433 and M69434). Serial: BSEP 97-0269
- 2.4 ESR 96-00597

3.0 ASSUMPTIONS

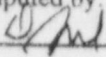
Not Applicable

Computed by: <i>[Signature]</i> Date: <i>10/11/97</i>	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 2SEIS-0028		
Checked by: Date:		Pg. 4	Of	Rev. 0
Project No.:		File:		
Project Title:				
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 2				

4.0 CONCLUSIONS

In general this calculation is a form of tracking system to all involved engineering and design resolution documentation for the BNP Unit 2 SQUG effort.

The resolutions in conjunction with respective seismic adequacy evaluations verify, that the SQUG identified safe shutdown systems would not be prevented from performing their safe shutdown functions before, during and after a seismic event associated with Design Basis Earthquake.

Computed by: 	Date: 10/11/97	CAROLINA POWER & LIGHT COMPANY CALCULATION SHEET	Calculation ID: 2SEIS-0028		
Checked by:	Date:		Pg. 5	Of	Rev. 0
Project No.:			File:		
Project Title:					
Calculation Title: USI A-46 Seismic Evaluation and Documentation Records for BNP - Unit 2					

5.0 BODY OF CALCULATION

This calculation is a summary and a quick reference of A-46 issues, resolutions and documents involved (see Final Tables in attachment "A").

The following is description of columns in the Final Tables (starting from left):

- | | |
|-----------------|---|
| 1) SEWS_ID | (this column identifies the SEWS item number) |
| 2) EQUIP_ID | (this column addresses equipment number identified in the SEWS) |
| 3) HOUSEKEEPING | (this column shows ticket no. in case if housekeeping is a resolution) |
| 4) WR_JO | (this column indicates WR/JO no. involved in resolution) |
| 5) ESR | (this column indicates ESR no. involved in resolution) |
| 6) CALC | (this column lists number of calc associated with resolution) |
| 7) COMMENTS | (this column describes an issue and its resolution) |
| 8) OUT_NEW | (this column shows an outlier number from Ref. 2 OSVS or Tables) |

There are three Tables included in Attachment "A". The first Table shows all outliers and open items that were resolved by calculations. The second shows those that were required some work and no calculations and the third shows those requiring calculations and work.

Attachment "B" includes the SEWS that were revised as part of the outlier resolution effort.

Table 1: Outliers Resolved by Calculations

10/11/97

01	2-D12-RE-N006A	CPL 2seis-0016	Outlier 001. Ion detector was disassembled at the time of walkdown. The outlier calculation will include an anchorage review and a database representation review.	47A
01	2-D12-RE-N006B	CPL 2seis-0016	Outlier 001. Ion detector was disassembled at the time of walkdown. The outlier calculation will include an anchorage review and a database representation review.	48A
01	2-D12-RE-N006C	CPL 2seis-0016	Outlier 001. Ion detector was disassembled at the time of walkdown. The outlier calculation will include an anchorage review and a database representation review.	49A
01	2-D12-RE-N006D	CPL 2seis-0016	Outlier 001. Ion detector was disassembled at the time of walkdown. The outlier calculation will include an anchorage review and a database representation review.	50A
02	2-VA-2A-BFIV-RB	S&A 96c1925-r-01	Outlier 2, Capacity vs Demand evaluation required.	187A
02	2-VA-2B-BFIV-RB	S&A 96c1925-r-01	Outlier 2, for capacity vs demand analysis.	195A
02	2-VA-2C-BFIV-RB	S&A 96c1925-r-01	Outlier 2, for capacity vs demand analysis.	200A
02	2-VA-2D-BFIV-RB	S&A 96c1925-r-01	Outlier 2, for capacity vs demand analysis.	201A

CALC ID 2SEIS-0028

ATTACHMENT 4

PAGE 1 OF 67

Table 1: Outliers Resolved by Calculations

10/11/97

03	2-2PA	CPL 0sels-0005	Anchorage outlier due to edge distance less than 4D.	11C
03	2-2PB	CPL 0sels-0005	The anchorage concerns relate to the embedded channel anchorage and the concrete curb. Outlier due to edge distance less than 4D.	12B
03	2-DGA	CPL 0sels-0005	Outlier 3. Anchorage is an outlier due to edge distance less than 4D. Anchorage requires evaluation.	68A
03	2-DGB	CPL 0sels-0105	Outlier 3. Anchorage outlier due to edge distance less than 4D.	69A
03	2-DGC	CPL 0sels-0005, 0004	Outlier 3. The anchorage outlier is due to an edge distance less than 4D. The SRT couldn't determine if the freq was above 8 Hz which can be resolved by a SEWS revision referencing existing calculations.	71A
03	2-DGD	CPL 0sels-0005	Outlier 3. The anchorage outlier is due to edge distance less than 4D. The SRT couldn't determine if the freq. was above 8 Hz. which can be resolved with a SEWS revision referencing data in existing calculations.	72A
05A	2-B21-PNL-QV9	EQE 250401-C-01	The embedded anchorage and concrete curb are anchorage outliers. Also see calc. EQE 250266-r-001 for interaction.	33B
05A	2-CAC-TY-4426-1	EQE 250401-C-01	Check Anchorage.	45E

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-CAC-TY-4426-2	EQE 250401-C-01	Check Anchorage	46E
05A	2-H12-P601	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	118C
05A	2-H12-P603	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	119D
05A	2-H12-P606	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	120A
05A	2-H12-P608	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	121A
05A	2-H12-P609	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	122A
05A	2-H12-P610	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	123A
05A	2-H12-P611	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	124A

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-H12-P612	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	125B
05A	2-H12-P613	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	126A
05A	2-H12-P614	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	127B
05A	2-H12-P615	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	128A
05A	2-H12-P616	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	129A
05A	2-H12-P617	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	130A
05A	2-H12-P618	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	131B
05A	2-H12-P620	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	132A

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-H12-P622	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	133A
05A	2-H12-P623	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	134B
05A	2-H12-P624	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	135B
05A	2-H12-P626	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	136B
05A	2-H12-P627	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	137B
05A	2-H12-P628	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	138B
05A	2-H12-P630	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	139B
05A	2-XU-13	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	242A

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-13	EQE 250401-C-01	Curb evaluation.	242D
05A	2-XU-2	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	243B
05A	2-XU-25	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	244A
05A	2-XU-27	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage.	245A
05A	2-XU-28	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	246A
05A	2-XU-29	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	247B
05A	2-XU-29	EQE 250401-C-01	Curb evaluation.	247C
05A	2-XU-3	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	248B

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-30	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	249A
05A	2-XU-30	EQE 250401-C-01	Curb evaluation.	249C
05A	2-XU-41	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	250A
05A	2-XU-41	EQE 250401-C-01	Curb evaluation.	250D
05A	2-XU-42	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	251A
05A	2-XU-50	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	252B
05A	2-XU-50	EQE 250401-C-01	Curb evaluation.	252D
05A	2-XU-51	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	253A

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-51	EQE 250401-C-01	Curb evaluation.	253B
05A	2-XU-53	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	254B
05A	2-XU-53	EQE 250401-C-01	Curb evaluation.	254E
05A	2-XU-56	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required.	255A
05A	2-XU-56	EQE 250401-C-01	Curb evaluation.	255B
05A	2-XU-56	EQE 250401-C-01	Curb on West side has been chipped away for wireway. It's cracked	255C
05A	2-XU-57	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	256A
05A	2-XU-57	EQE 250401-C-01	Curb evaluation.	256D

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-58	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	257A
05A	2-XU-58	EQE 250401-C-01	Curb evaluation.	257D
05A	2-XU-63	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	258A
05A	2-XU-63	EQE 250401-C-01	Curb evaluation.	258C
05A	2-XU-64	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	259A
05A	2-XU-64	EQE 250401-C-01	Curb evaluation.	259C
05A	2-XU-65	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	260A
05A	2-XU-65	EQE 250401-C-01	Curb evaluation.	260C

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-66	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	261A
05A	2-XU-66	EQE 250401-C-01	Curb evaluation.	261C
05A	2-XU-67	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	262A
05A	2-XU-67	EQE 250401-C-01	Curb evaluation.	262C
05A	2-XU-68	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	263A
05A	2-XU-68	EQE 250401-C-01	Curb evaluation.	263C
05A	2-XU-73	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	264B
05A	2-XU-73	EQE 250401-C-01	Curb evaluation.	264D

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-75	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	265B
05A	2-XU-75	EQE 250401-C-01	Curb evaluation.	265D
05A	2-XU-76	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	266A
05A	2-XU-76	EQE 250401-C-01	Curb evaluation.	266C
05A	2-XU-77	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	267A
05A	2-XU-77	EQE 250401-C-01	Curb evaluation.	267C
05A	2-XU-79	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	268B
05A	2-XU-79	EQE 250401-C-01	Curb evaluation.	268D

Table 1: Outliers Resolved by Calculations

10/11/97

05A	2-XU-9	EQE 250401-C-01	Outlier 5A. Embedded anchorage and curb analysis required. See Dwg. F-01580 and F-01587 for embedded anchorage	269A
05A	2-XU-9	EQE 250401-C-01	Curb evaluation.	269B
05A/25	2-CAC-TY-4426-1	CPL 2seis-0017	Programable controlers are present (outlier 025)	45A
05A/25	2-CAC-TY-4426-2	CPL 2seis-0017	Programable controlers are present (outlier 025)	46A
05B	2-2A-UPS	CPL 2seis-0023	Outlier 5B. Load path to the anchorage is undefined and equipment pad anchorage is questionable making this an anchorage outlier.	5C
06	2-E7	S&A 96c1925-r-01	Outlier 6. Evaluate load path of transformer, lateral supports, capacity vs. demand.	103A
06	2-E7-FB2-XFMR	S&A 96c1925-r-01	Outlier 6. Frequency evaluation is required. The anchorage of the entire switchgear assembly is to be evaluated due to weak-way bending.	104A
06	2-E8	S&A 96c1925-r-01	Outlier 6. Evaluate load path of transformer, lateral supports, capacity vs. demand.	105B

Table 1: Outliers Resolved by Calculations

10/11/97

06	2-E8	S&A 96c1925-r-01	Outlier 6, Embedded anchorage	105C
06	2-E8-FB1-XFMR	S&A 96c1925-r-01	Outlier 6, Frequency evaluation is required. The anchorage of the entire switchgear assembly (including this transformer) is to be evaluated due to weak-way bending.	106A
06	2-E8-FB1-XFMR	S&A 96c1925-r-01	Outlier 6, Embedded anchorage	106C
07	2-VA-2A-D-CB	S&A 96c1925-r-01	Outlier 7, Seismic capacity vs demand	189A
07	2-VA-2I-D-CB	S&A 96c1925-r-01	Outlier 7 will address capacity vs demand.	208A
07	2-VA-FV-1027A	S&A 96c1925-r-01	Outlier 7 to address capacity vs demand	215A
07	2-VA-FV-1028	S&A 96c1925-r-01	Outlier 7 to address capacity vs demand	216A
08	2-B21-F022A	S&A 96c1925-r-01	S&A report addresses valve eq class caveat.	258

Table 1: Outliers Resolved by Calculations

10/11/97

08	2-B21-F022B	S&A 96c1925-r-01	S&A report addresses valve eq class caveat.	26A
08	2-B21-F022C	S&A 96c1925-r-01	S&A report addresses valve eq class caveat.	27A
08	2-B21-F022D	S&A 96c1925-r-01	S&A report addresses valve eq class caveat.	28A
08	2-B21-F028A	S&A 96c1925-r-01	Outlier 8, S&A report to address valve representation.	29A
08	2-B21-F028B	S&A 96c1925-r-01	Outlier 8, See S&A report for valve representation.	30A
08	2-B21-F028C	S&A 96c1925-r-01	Outlier 8, See S&A report for valve representation.	31A
08	2-B21-F028D	S&A 96c1925-r-01	Outlier 8, See S&A report for valve representation. See notes for 1-B21-F022A and 2-B21-F028A.	32A
08	2-G16-F003	S&A 96c1925-r-01	Outlier 8, Evaluation of database representation is required.	114A

Table 1: Outliers Resolved by Calculations

10/11/97

08	2-G16-F004	S&A 96c1925-r-01	Outlier 8, Evaluation of database representation is required.	115A
08	2-G16-F019	S&A 96c1925-r-01	Outlier 8, Evaluation of database representation is required.	116A
08	2-G16-F020	S&A 96c1925-r-01	Outlier 8, Evaluation of database representation is required.	117A
09	2-E21-F004A	S&A 96c1925-r-01	Outlier 9, capacity vs. demand.	90A
09	2-E21-F004B	S&A 96c1925-r-01	Outlier 9, capacity vs. demand.	91A
09	2-E21-F005A	S&A 96c1925-r-01	Outlier 9, capacity vs. demand.	92A
09	2-E21-F005B	S&A 96c1925-r-01	Outlier 9, capacity vs. demand.	93A
09	2-SW-V136	S&A 96c1925-r-01	Outlier 9, Capacity vs Demand. Piping at valve uses threaded connection.	170A

Table 1: Outliers Resolved by Calculations

10/11/97

09	2-SW-V137	S&A 96c1925-r-01	Outlier 9, Capacity vs Demand. Piping at valve uses threaded connection.	171A
09	2-SW-V138	S&A 96c1925-r-01	Outlier 9, Capacity vs Demand. Piping at valve uses threaded connection.	172A
09	2-SW-V139	S&A 96c1925-r-01	Outlier 9, Capacity vs Demand. Piping at valve uses threaded connection.	173A
10	2-E11-F002AMO	S&A 96c1925-002-r-01	Outlier 10. Assumed cast iron yoke. Yoke evaluation required. As-built sketches provided in SEWS. Pipe size is 16".	75A
10	2-E11-F002BMO	S&A 96c1925-r-01	Outlier 10, capacity vs. demand, caveats	76A
10	2-E41-F012	S&A 96c1925-r-01	Outlier 10, Yoke evaluation required.	98A
10	2-SW-V101	S&A 96c1925-r-01	Outlier 10, Cast Iron yoke, and capacity vs. demand issue.	161A
10	2-SW-V102-MO	S&A 96c1925-r-01	Outlier 10, Cast Iron yoke, and capacity vs. demand issue.	162A

Table 1: Outliers Resolved by Calculations

10/11/97

10	2-SW-V103	S&A 96c1925-r-01	Outlier 10, Cast iron yoke, and capacity vs. demand issue.	163A
10	2-SW-V105	S&A 96c1925-r-01	Outlier 10, Cast iron yoke, and capacity vs. demand issue.	164A
10	2-SW-V106-MO	S&A 96c1925-r-01	Outlier 10, Cast iron yoke, and capacity vs. demand issue.	165A
10	2-SW-V14-MO	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	174A
10	2-SW-V16	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	175A
10	2-SW-V18-MO	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	176A
10	2-SW-V19	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	177A
10	2-SW-V20	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	178A

Table 1: Outliers Resolved by Calculations

10/11/97

10	2-SW-V210	S&A 96c1925-r-01	Outlier 10, Valve yoke eval & capacity vs demand.	179A
10	2-SW-V211	S&A 96c1925-r-01	Outlier 10, PMI replaced valve w/new MOV operator, Cap vs Dem analysis required	180A
10	2-SW-V212	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	181A
10	2-SW-V213	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	182A
10	2-SW-V255-MO	S&A 96c1925-r-01	Outlier 10, Valve yoke evaluation and capacity vs demand.	183A
11	2-E11-F006A	S&A 96c1925-r-01	Outlier 11, operator height and weight evaluation required.	77A
11	2-E11-F006B	S&A 96c1925-r-01	Outlier 11, Valve yoke evaluation required.	78A
11	2-E11-F006C	S&A 96c1925-r-01	Outlier 11, Valve yoke evaluation required.	79A

Table 1: Outliers Resolved by Calculations

10/11/97

11	2-E11-F006D	S&A 96c1925-r-01	Outlier 11, Valve yoke evaluation required.	80A
11	2-E11-F008	S&A 96c1925-r-01	Outlier 11, Valve height and weight are acceptable with justification. However, due to similarities to outlier valves, this one will also be evaluated.	82A
11	2-E11-F009	S&A 96c1925-r-01	Outlier 11, Valve operator height/width requirements.	83A
11	2-E11-F015A	S&A 96c1925-r-01	Outlier 11, Operator height and weight exceed GIP allowables, evaluation is required.	84A
11	2-E11-F015B	S&A 96c1925-r-01	Outlier 11, According to the SEWS, this item is listed as 'optional' on the SSEL. Will evaluate this item.	85A
11	2-E11-F017A	S&A 96c1925-r-01	Outlier 11, Operator height and weight	86A
11	2-E11-F017B	S&A 96c1925-r-01	Outlier 11, See notes for 2-E11-F015A and 2-E11-F017A.	87A
11	2-E41-F006	S&A 96c1925-r-01	Outlier 11, Operator height and weight exceed GIP allowables, evaluation required.	97A

Table 1: Outliers Resolved by Calculations

10/11/97

11	2-E41-F059	S&A 96c1925-r-01	Outlier 11, Valve meets the GIP requirements. However, since the similar valve 1-E41-F059 was made an outlier, this one will also be evaluated.	99A
12	2-CAC-SV-4345	EQE 250401-C-02	Outlier 12. Though this caveat does not apply to SOVs, the SRT felt that the weight of the valve (max. 38 lbs.) and the pipe size (about 13/16") required further review.	44A
13	2-VA-2A-UH-CB	S&A 96c1925-r-01	Outlier 13, Frequency is undetermined. Capacity vs demand evaluation is required.	193A
13	2-VA-ISOL-DMP-CB	S&A 96c1925-r-01	Outlier 13, Capacity vs demand analysis required	217A
13	2-VA-M1-CB	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	220A
13	2-VA-PS-1027	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	221A
13	2-VA-PS-1027A	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	222A
13	2-VA-PS-1028	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	223A

Table 1: Outliers Resolved by Calculations

10/11/97

13	2-VA-PS-1028A	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	224A
13	2-VA-SV-1027	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	228A
13	2-VA-SV-1027A	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	229A
13	2-VA-SV-1028	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	230A
13	2-VA-SV-1028A	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	231A
13	2-VA-SV-916-1	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	232A
13	2-VA-TC-1028	S&A 96c1925-r-01	Outlier 13, for capacity vs demand evaluation.	233A
14	2-VA-A-SF-DG	S&A 96c1925-r-01	Outlier 14 to resolve anchorage issue	209A

Table 1: Outliers Resolved by Calculations

10/11/97

14	2-VA-A-SF-DG	S&A 96c1925-r-01	Capacity vs demand analysis required	209B
14	2-VA-B-SF-DG	S&A 96c1925-r-01	Outlier 14 to resolve anchorage issue	210A
14	2-VA-B-SF-DG	S&A 96c1925-r-01	Capacity vs demand analysis required	210B
14	2-VA-B-SF-DG	CPL 0-01534a-206	Missing anchor bolt at southeast bolt on the Southwest base plate.	210C
14	2-VA-C-SF-DG	S&A 96c1925-r-01	Outlier 14 to resolve anchorage issue	211A
14	2-VA-C-SF-DG	S&A 96c1925-r-01	Capacity vs demand analysis required	211B
14	2-VA-D-SF-DG	S&A 96c1925-r-01	Outlier 14 to resolve anchorage issue	212A
14	2-VA-D-SF-DG	S&A 96c1925-r-01	Capacity vs demand analysis required	212B

Table 1: Outliers Resolved by Calculations

10/11/97

16	2-VA-2A-AC-CB	S&A 96c1925-r-01	Outlier 16, Capacity vs demand	186A
16	2-VA-2A-AC-CB	S&A 96c1925-r-01	Outlier 16, 1/2" thick isolator pad and anchorage is outlier issue.	186B
16	2-VA-2B-AC-CB	S&A 96c1925-r-01	Outlier 16, Capacity vs demand	194A
16	2-VA-2B-AC-CB	S&A 96c1925-r-01	Outlier 16, 1/2" thick isolator pad and anchorage is outlier issue.	194B
18	2-DG1-GEN	EQE 250401-C-03	Outlier 18. "Saddle-Bag" type fuel tanks have atypical installation using straps and require review.	57A
18	2-DG2-GEN	EQE 250401-C-03	Outlier 18. "Saddle-Bag" type fuel tanks have atypical installation using straps and require review.	57A
18	2-DG3-GEN	EQE 250401-C-03	Outlier 18. "Saddle-Bag" type fuel tanks have atypical installation using straps and require review.	61A
18	2-DG4-GEN	EQE 250401-C-03	Outlier 18. "Saddle-Bag" type fuel tanks have atypical installation using straps and require review.	66A

Table 1: Outliers Resolved by Calculations

10/11/97

19	2-SW-PS-1995	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand calc required.	149B
19	2-SW-PS-1996	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand calc required.	150A
19	2-SW-PS-1998	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand calc required.	151A
19	2-SW-PS-1999	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand calc required.	152A
19	2-SW-TY-4887	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand	157A
19	2-SW-TY-4888	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand	158A
19	2-SW-TY-4889	S&A 96c1925-r-01	Outlier 19, Capacity vs. Demand	159A
19	2-SW-TY-4890	S&A 96c1925-r-01	Outlier 19, Capacity vs Demand.	160A

Table 1: Outliers Resolved by Calculations

10/11/97

19	2-VA-FS-1027	S&A 96c1925-r-01	Outlier 19, will address capacity vs demand	213A
19	2-VA-FS-1028	S&A 96c1925-r-01	Outlier 19, will address capacity vs demand	214A
19	2-VA-KS-1027	S&A 96c1925-r-01	Outlier 19, Capacity vs demand evaluation required.	218A
19	2-VA-KS-1028	S&A 96c1925-r-01	Outlier 19, Capacity vs demand evaluation required.	219A
19	2-VA-PS-1632	S&A 96c1925-r-01	Outlier 19, will resolve capacity vs demand issues.	225A
19	2-VA-PS-1633	S&A 96c1925-r-01	Outlier 19, will resolve capacity vs demand issues.	226A
19	2-VA-PSL-1646	S&A 96c1925-r-01	Outlier 19, will resolve capacity vs demand issues.	227A
19	2-VA-TE-1299-2	S&A 96c1925-r-01	Outlier 19, for capacity vs demand evaluation.	234A

Table 1: Outliers Resolved by Calculations

10/11/97

19	2-VA-TT-1028	S&A 96c1925-r-01	Outlier 19, for capacity vs demand evaluation.	235A
19	2-VA-TT-1299-2	S&A 96c1925-r-01	Outlier 19, for capacity vs demand evaluation.	236A
19	2-VA-ZS-1027-A	S&A 96c1925-r-01	Outlier 19, for capacity vs demand evaluation.	238A
19	2-VA-ZS-1027-B	S&A 96c1925-r-01	Outlier 19, for capacity vs demand evaluation.	239A
19	2-VA-ZS-1028	S&A 96c1925-r-01	Outlier 19, for capacity vs demand evaluation.	240A
21	2-H21-P019	EQE 250401-C-04	Outlier 21, interaction concern for conduit connecting rigid rack to flexible Unistrut frame overhead with differential motion problems. Anchorage details may be on drawings and a calc.	146A
22/23	2-DG1-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 22 This panel shares a curb with the GEN-CTRL-PNL and the EXCIT-PNL. This curb is cracked (bounded by the cracks in the DG3 panels' curb), and requires evaluation.	51A
22/23	2-DG1-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand.	51B

Table 1: Outliers Resolved by Calculations

10/11/97

22/23	2-DG1-EXCIT-PNL	S&A 96c1925-r-01	Outlier 22, this panel shares a common curb with GEN-CTRL and the EXCIT panels (the curb cracking is bounded by the DG3 curb)	52A
22/23	2-DG1-EXCIT-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand.	52C
22/23	2-DG2-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 22. This panel shares a common curb with the GEN-CTRL and the EXCIT panels.	55A
22/23	2-DG2-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 23. Has issue with capacity vs. demand.	55B
22/23	2-DG2-EXCIT-PNL	S&A 96c1925-r-01	Outlier 22. Shares a common curb with the GEN-CTRL and ENG-CTRL panels.	56A
22/23	2-DG2-EXCIT-PNL	S&A 96c1925-r-01	Outlier 23, Capacity vs. demand.	56B
22/23	2-DG2-GEN-CTRL-PNL	S&A 96c1925-r-01	Outlier 22. This panel shares a common curb with the ENG-CTRL and the EXCIT panels, (The curb cracking is bounded by the DG3 curb). Also see EQE 52213-C-044.	58A
22/23	2-DG2-GEN-CTRL-PNL	S&A 96c1925-r-01	Outlier 23. Has issue with capacity vs. demand.	58B

Table 1: Outliers Resolved by Calculations

10/11/97

22/23	2-DG3-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 22, This panel shares a common curb with the GEN-CTRL and the EXCIT panels. (The curb is cracked). Details of the anchorage can be found in EQE Report 52171-R-001. Evaluation is required for the anchorage & curb (outlier 022) and for the frequen	59A
22/23	2-DG3-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand.	59B
22/23	2-DG3-EXCIT-PNL	S&A 96c1925-r-01	Outlier 22, This panel shares a common curb with the GEN-CTRL and the ENG-CTRL panels. The curb is cracked. Details of the anchorage can be found in EQE Report 52171-R-001. Evaluation is required for the anchorage & curb (outlier 022) and for the frequ	60A
22/23	2-DG3-EXCIT-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand.	60B
22/23	2-DG3-GEN-CTRL-PNL	S&A 96c1925-r-01	Outlier 22, This panel shares a common curb with the ENG-CTRL and the EXCIT panels. The curb is cracked.	62A
22/23	2-DG3-GEN-CTRL-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand.	62B
22/23	2-DG4-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 22, Common curb with the GEN-CTRL and the EXCIT panels. The curb is cracked (bounded by the DG3 curb).	64A
22/23	2-DG4-ENG-CTRL-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand	64B

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLIER	DESCRIPTION	LOCATION	REMARKS	STATUS
22/23	2-DG4-EXCIT-PNL	S&A 96c1925-r-01	Outlier 22, common curb with the GEN-CTRL and the ENG-CTRL panels. (The curb is cracked).	65A
22/23	2-DG4-EXCIT-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand.	65B
22/23	2-DG4-GEN-CTRL-PNL	S&A 96c1925-r-01	Outlier 22, Common curb with the ENG-CTRL and the EXCIT panels. The curb is cracked (bounded by the DG3 curb).	67A
22/23	2-DG4-GEN-CTRL-PNL	S&A 96c1925-r-01	Outlier 23, capacity vs. demand	67B
24	2-H12-P601	CPL 2seis-0018	Outlier 24, Strip chart recorder has a 14" cantilever	118A
24	2-H12-P603	CPL 2seis-0018	Outlier 24, Strip chart recorders have up to 22" cantilevers for this panel.	119A
24	2-H12-P612	CPL 2seis-0018	Outlier 24, Racks on cabinet face have 20" cantilevers	125A
24	2-H12-P614	CPL 2seis-0018	Outlier 24, Strip chart recorders require evaluation	127A

Table 1: Outliers Resolved by Calculations

10/11/97

24	2-IR-RB-4	CPL 2seis-0018	Outlier 24 to address strip chart recorder 2-CAC-TR-778 which is not braced.	147A
24	2-XU-2	CPL 2seis-0018	Outlier 24, the strip chart recorder has > 10" cantilever and other items have up to 25" cantilever	243A
24	2-XU-3	CPL 2seis-0018	Outlier 24, Strip chart recorder and other devices are cantilevered off cabinet face	248A
26	2-C12-125	EQE 250401-C-05	Outlier 26. The rack has been qualified by existing calculations. An ACR addresses the base connection corrosion. Attachment of accumulators to rack and existing rack qualification require evaluation.	34A
26	2-C12-LDSH-129	EQE 250401-C-05	Outlier 26. See note for 2-C12-125 (Equipment Class 21). Load path for this item runs through the accumulator to the rack. Adequacy of the accumulator's load path will demonstrate this item's adequacy.	38A
26	2-C12-PSL-130	EQE 250401-C-05	Outlier 26. Accumulator mounting evaluation req. See note for 2-C12-LDSH-129.	39A
27	2-FOD-4-DAY-TK-1	CPL 0fod-0002	Outlier 27, The anchors are arranged in four, eight bolt clusters. Each bolt in the cluster has multiple spacing violations. This is an outlier according to the GIP.	110A
27	2-FOD-4-DAY-TK-2	CPL 0fod-0002	Outlier 27, The anchors are arranged in four, eight bolt clusters. Each bolt in the cluster has multiple spacing violations. This is an outlier according to the GIP.	111A

Table 1: Outliers Resolved by Calculations

10/11/97

CUT REV	Item	Code	Description	Reference
27	2-FOD-4-DAY-TK-3	CPL 0fod-0002	Outlier 27, The anchors are arranged in four, eight bolt clusters. Each bolt in the cluster has multiple spacing violations. This is an outlier according to the GIP.	112A
27	2-FOD-4-DAY-TK-4	CPL 0fod-0002	Outlier 27, The anchors are arranged in four, eight bolt clusters. Each bolt in the cluster has multiple spacing violations. This is an outlier according to the GIP.	113A
28	2-E11-B001A	EQE 250401-C-06	Outlier 28, Structural details required. Anchorage generally in accordance with drawings but calc is needed.	73A
28	2-E11-B001B	EQE 250401-C-06	Outlier 28, Structural details required. See PM 91-041. Anchorage generally in accordance with drawings.	74A
E2	2-2CA	CPL 2sels-0021	The flooding / spray concern will be addressed via analysis (outlier 15 not used, dry lines, operator action req. etc)	9C
E2	2-2CB	CPL 2sels-0021	The flooding / spray concern will be addressed via analysis (outlier 15 not used, dry lines, operator action req. etc)	10C
E2	2-B21-F022A	CPL 2sels-0019	The interaction concern for 1/2" clearance between operator and a whip restraint will be resolved via an ESR.	25A
E2	2-B21-F028A	CPL 2sels-0019	Valve air supply tubing is in contact with a valve conduit and is poorly supported.	29C

Table 1: Outliers Resolved by Calculations

10/11/97

E2	2-C72-5001B	EQE 250401-C-15	Anchorage review required. SEWS says mounting of local control panel is OK.	43B
E2	2-CAC-TY-4426-1	EQE 250401-C-20	Interaction concerns to be resolved via an ESR include: ceiling embedded unistrut overload.	45D
E2	2-CAC-TY-4426-2	EQE 250401-C-20	Interaction concerns to be resolved via an ESR include: rigidly attached conduit.	46B
E2	2-CAC-TY-4426-2	EQE 250401-C-20	Interaction concerns to be resolved via an ESR include: ceiling embedded unistrut overload. Also see EQE-R-001. This cabinet is in grouping 2016. there are no SSEL relays, no credible seismic interactions.	46C
E2	2-DG4-EXCIT-PNL	Revised SEWS	Grout pads for rain shield deadweight supports evaluated - acceptable as is, cracking is only cosmetic.	65D
E2	2-E11-F007A	CPL 2seis-0020	The interaction concern for a 1/2" gap between the operator and structural steel will be resolved via an ESR.	81A
E2	2-E11-F009	CPL 2seis-0015	Interaction concern for contact between the valve operator and the structural steel member.	83B
E2	2-E41-F002	CPL 2seis-0019	Drywell, interaction issue, Support 2-E41-4CH48 (Dwg. C-02409, Sht. 40-1) is very flexible in the valve's direction. Also, attachment to platform provides little torsional restraint. An ESR is required to resolve these concerns.	96A

Table 1: Outliers Resolved by Calculations

10/11/97

E2	2-FO-LS-2287	Revised SEWS	Mounting is loose and requires tightening via WR/JO or FIN team. DG Tank room 3	107A
E2	2-H12-P606	EQE 250266-R-001	Overhead interaction with equipment. Located in cabinet grouping 2-11. Cabinet does not have SSEL relays, no credible seismic interaction.	120E
E2	2-H12-P606	EQE 250401-C-20	Embedded Unistrut in ceiling overload	120F
E2	2-H12-P608	EQE 250266-R-001	Overhead interaction with equipment. Located in cabinet grouping 2-11. Cabinet does not have SSEL relays, no credible seismic interaction.	121E
E2	2-H12-P608	EQE 250401-C-20	Embedded Unistrut in ceiling overload	121F
E2	2-H12-P608	EQE 250401-C-23	Light fixtures with suspect anchorage	121G
E2	2-H12-P609	EQE 250266-R-001	Overhead interaction with equipment	122E
E2	2-H12-P609	EQE 250401-C-20	Embedded Unistrut in ceiling overload	122F

Table 1: Outliers Resolved by Calculations

10/11/97

QUANTITY				
E2	2-H12-P609	EQE 250401-C-23	Light fixtures with suspect anchorage	122G
E2	2-H12-P610	EQE 250266-R-001	Overhead interaction with equipment	123E
E2	2-H12-P610	EQE 250401-C-20	Embedded Unistrut in ceiling overload	123F
E2	2-H12-P610	EQE 250401-C-23	Light fixtures with suspect anchorage	123G
E2	2-H12-P611	EQE 250266-R-001	Overhead interaction with equipment	124F
E2	2-H12-P611	EQE 250401-C-20	Embedded Unistrut in ceiling overload	124G
E2	2-H12-P611	EQE 250401-C-23	Light fixtures with suspect anchorage	124H
E2	2-H12-P612	EQE 250266-R-001	Overhead interaction with equipment. Located in cabinet grouping 2-6. Cabinet does not have SSEL relays, no credible seismic interaction.	125F

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLINE	Location	Reference	Description	Notes
E2	2-H12-P612	EQE 250401-C-20	Embedded Unistrut in ceiling overload	125G
E2	2-H12-P612	EQE 250401-C-23	Light fixtures with suspect anchorage	125H
E2	2-H12-P612	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	125I
E2	2-H12-P613	EQE 250266-R-001	Overhead interaction with equipment. Located incabinet grouping 2-6. No SSEL relays, no credible seismic interaction.	126E
E2	2-H12-P613	EQE 250401-C-20	Embedded Unistrut in ceiling overload	126F
E2	2-H12-P613	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	126H
E2	2-H12-P614	EQE 250266-R-001	Overhead interaction with equipment.	127F
E2	2-H12-P614	EQE 250401-C-20	Embedded Unistrut in ceiling overload	127G

Table 1: Outliers Resolved by Calculations

10/11/97

OUT NEW	SNIP ID	EQE	DESCRIPTION	REFERENCE
E2	2-H12-P614	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	127I
E2	2-H12-P615	EQE 250266-R-001	Overhead interaction with equipment. Located in cabinet group 2-10. Cabinet 2-H12-P615 does not contain SSEL relays. No credible seismic interactions.	128E
E2	2-H12-P615	EQE 250401-C-23	Light fixtures with suspect anchorage	128F
E2	2-H12-P615	CPL ESR 96-00597 AI #4	ESR to resolve concerns related to boards without rack resilient bars, boards that are racked and boards without latches engaged.	128G
E2	2-H12-P616	EQE 250266-R-001	Overhead interaction with equipment. Cabinets located in group 2-10. All relays were previously chatter acceptable based on system consequence analysis.	129E
E2	2-H12-P616	EQE 250401-C-23	Light fixtures with suspect anchorage	129F
E2	2-H12-P616	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	129G
E2	2-H12-P617	EQE 250266-R-001	Overhead interaction with equipment.	130E

Table 1: Outliers Resolved by Calculations

10/11/97

E2	2-H12-P617	EQE 250401-C-20	Embedded Unistrut in ceiling overload	130F
E2	2-H12-P617	EQE 250401-C-23	Light fixtures with suspect anchorage	130G
E2	2-H12-P617	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	130I
E2	2-H12-P618	EQE 250266-R-001	Overhead interaction with equipment.	131F
E2	2-H12-P618	EQE 250401-C-20	Embedded Unistrut in ceiling overload	131G
E2	2-H12-P618	EQE 250401-C-23	Light fixtures with suspect anchorage	131H
E2	2-H12-P622	EQE 250266-R-001	Overhead interaction with equipment.	133E
E2	2-H12-P622	EQE 250401-C-20	Embedded Unistrut in ceiling overload	133F

Table 1: Outliers Resolved by Calculations

10/11/97

E2	2-H12-P622	EQE 250401-C-23	Light fixtures with suspect anchorage	133G
E2	2-H12-P623	EQE 250266-R-001	Overhead interaction with equipment.	134F
E2	2-H12-P623	EQE 250401-C-20	Embedded Unistrut in ceiling overload	134G
E2	2-H12-P623	EQE 250401-C-23	Light fixtures with suspect anchorage	134H
E2	2-H12-P624	EQE 250266-R-001	Overhead interaction with equipment.	135F
E2	2-H12-P624	EQE 250401-C-20	Embedded Unistrut in ceiling overload	135G
E2	2-H12-P626	EQE 250266-R-001	Overhead interaction with equipment.	136F
E2	2-H12-P627	EQE 250401-C-20	Embedded Unistrut in ceiling overload	137G

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLINE	DESCRIPTION	REFERENCE	DETAILS	LOCATION
E2	2-H12-P626	EQE 250401-C-23	Light fixtures with suspect anchorage	136H
E2	2-H12-P627	EQE 250266-R-001	Overhead interaction with equipment.	137F
E2	2-H12-P627	EQE 250401-C-20	Embedded unistrut in ceiling overload	137G
E2	2-H12-P627	EQE 250401-C-23	Light fixtures with suspect anchorage	137H
E2	2-H12-P628	EQE 250266-R-001	Overhead interaction with equipment.	138F
E2	2-H12-P628	EQE 250401-C-20	Embedded Unistrut in ceiling overload	138G
E2	2-H12-P628	EQE 250401-C-23	Light fixtures with suspect anchorage	138H
E2	2-H12-P630	CPL ESR 96-00597 AI #6	Computer cards on slides are not latched, Qty= 6	139A

Table 1: Outliers Resolved by Calculations

10/11/97

E2	2-H12-P630	EQE 250266-R-001	Overhead interaction with equipment. Located in lineup 2-8. This cabinet does not contain SSEL relays, no credible seismic interaction.	139F
E2	2-H12-P630	EQE 250401-C-20	Embedded Unistrut in ceiling overload	139G
E2	2-TCR-1-HOLLYWOOD	CPL 2sels-0027	Interaction concern with nearby RWP/Dose posting stand.	184A
E2	2-TCR-1-HOLLYWOOD	CPL 2sels-0027	Interaction concern with nearby Low Dose Waiting area sign.	184B
E2	2-VA-2D-SCDU-CB	ESR 96-00597 AI #3	Equip not needed on SSEL, ESR 96-00597 Action Item 3 states basis.	203A
E2	2-VA-2E-SCDU-CB	ESR 96-00597 AI #3	Equip not needed on SSEL, ESR 96-00597 Action Item 3 states basis.	206A
E2	2-XU-13	EQE 250266-R-001	Overhead interaction with equipment.	242E
E2	2-XU-25	EQE 250266-R-001	Unistrut frame has seismic interference with suspended overhead cable trays. Also see EQE 250401-C-20	244B

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLIER	Location	Calculation	Description	Value
E2	2-XU-27	EQE 250266-R-001	Overhead interaction with equipment with frame and cable trays. Also see calc EQE 250401-C-20	245B
E2	2-XU-28	EQE 250266-R-001	Overhead interaction with equipment with frame and cable trays. Also see calc EQE 250401-C-20.	246C
E2	2-XU-29	EQE 250266-R-001	Overhead interaction with equipment.	247D
E2	2-XU-29	EQE 250401-C-20	Embedded Unistrut in ceiling overload	247E
E2	2-XU-29	EQE 250401-C-23	Light fixtures with suspect anchorage	247F
E2	2-XU-30	EQE 250266-R-001	Overhead interaction with equipment.	249D
E2	2-XU-41	EQE 250266-R-001	Overhead interaction with equipment.	250E
E2	2-XU-42	EQE 250266-R-001	Unistrut frame has seismic interference with suspended overhead cable trays.	251B

Table 1: Outliers Resolved by Calculations

10/11/97

Outlier	Location	Calculation	Description	Resolution
E2	2-XU-50	EQE 250266-R-001	Overhead interaction with equipment / frame, has additional loading. Also see EQE calcs 250401-C-01 & 20.	252E
E2	2-XU-50	EQE 250401-C-20	Embedded Unistrut in ceiling overload	252F
E2	2-XU-53	EQE 250266-R-001	Overhead interaction with equipment.	254F
E2	2-XU-53	EQE 250401-C-20	Embedded Unistrut in ceiling overload	254G
E2	2-XU-53	EQE 250401-C-23	Light fixtures with suspect anchorage	254H
E2	2-XU-56	EQE 250401-C-20	Unistrut frame needs evaluation	255D
E2	2-XU-56	EQE 250266-R-001	Overhead interaction with equipment.	255E
E2	2-XU-56	EQE 250401-C-20	Embedded Unistrut in ceiling overload	255F

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLIER	SHIP	EQE	DESCRIPTION	REFERENCE
E2	2-XU-56	EQE 250401-C-23	Light fixtures with suspect anchorage	255G
E2	? XU-57	EQE 250266-R-001	Overhead interaction with equipment.	256E
E2	2-XU-57	EQE 250401-C-23	Light fixtures with suspect anchorage	256F
E2	2-XU-57	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	256G
E2	2-XU-58	EQE 250266-R-001	Overhead interaction with equipment.	257E
E2	2-XU-58	EQE 250401-C-23	Light fixtures with suspect anchorage	257F
E2	2-XU-58	EQE 250401-C-20	Common Unistrut frame requires analysis, attached to other cabinets	257G
E2	2-XU-65	EQE 250266-R-001	Overhead interaction with equipment.	260D

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLIER	OUTLIER	OUTLIER	OUTLIER	OUTLIER
E2	2-XU-66	EQE 250266-R-001	Overhead interaction with equipment.	261D
E2	2-XU-73	EQE 250266-R-001	Overhead interaction with equipment. Located in cabinet group 2-7. this cabinet does not have relays on SSEL. No credible seismic interactions.	264E
E2	2-XU-73	EQE 250401-C-20	Embedded Unistrut in ceiling overload	264F
E2	2-XU-73	EQE 250401-C-23	Light fixtures with suspect anchorage	264G
E2	2-XU-76	EQE 250401-C-20	Embedded Unistrut in ceiling overload	266E
E2	2-XU-77	EQE 250401-C-20	Embedded Unistrut in ceiling overload	267E
E2	2-XU-9	EQE 250266-R-001	Overhead interaction with equipment. Located in cabinet grouping 2-13, XU-9 does not contain SSEL relays. No credible seismic interactions.	269C
F2	2-B21-A003F	CPL 0sels-0006	Appendix F-2, Accumulator support lacks the upper steel attachment.	21A

Table 1: Outliers Resolved by Calculations

10/11/97

OUTLIER	DESCRIPTION	REFERENCE	REMARKS	STATUS
F2	2-B21-A003G	CPL 03015-0006	Appendix F-2, Accumulator support lacks the upper steel attachment.	22A
G	Conduit Support Frame	CPL 2miscel-1031-9600597	Outlier RW-1, Frame lacks support in the transverse direction and may be unstable.	274A
G	Suspended Frame	EQE 250401-C-08	Outlier RW-6, suspended from wide flange member using beam clamps.	277A

CALC ID 25E15-0028

ATTACHMENT A

PAGE 45 OF 67

Table 2: Outliers Resolved With Work

10/11/97

14	2-VA-2D-SF-CB	do in 98	96AHQIK		Replace anchorage and Isolator/springs. (ESR 97-00268 to resolve)	204B
14	2-VA-2E-SF-CB	do in 98	96AHQIL		Replace anchorage and Isolator/springs. (ESR 97-00268 to resolve)	207B
E2	2-2A-125VDC	93AZSF1	93AXTU1		WR/JO resolved concerns about panel latches/hinges.	3A
E2	2-2PA	EXISTING			The interaction concern is with a rolling ladder stationed nearby which will be resolve by housekeeping. (CHAINED IN PLACE). To handrail on North end.	11A
E2	2-2XA	97ACQYN	97ACQY6	96-00597	The interaction concern relates to unanchored bottle carts stationed nearby. Chain to building structure is not adequate.	13A
E2	2-2XB	97ACQYN	97AECT9	96-00597	The interaction concern relates to unanchored carts stationed nearby and will be resolved by housekeeping. Also fire extinguisher nearby.	15A
E2	2-2XB-2	97ACQYN			The interaction concern relates to unanchored carts stationed nearby and will be resolved by housekeeping.	16A
E2	2-2XC	97ACQYN			The interaction concern relates to unanchored carts stationed nearby and will be resolved by housekeeping.	17A
E2	2-2XD	97ACQYN			The interaction concern relates to unanchored carts stationed nearby and will be resolved by housekeeping.	18A

CALC ID 25015-0028

ATTACHMENT A

PAGE 46 OF 67

Table 2: Outliers Resolved With Work

10/11/97

E2	2-2XDA	97ACQYN		96-00597	Interaction concern for several bottles on carts, maintenance carts, etc. will be resolved by housekeeping.	19A
E2	2-2XDB	97ACQYN	97ACQY6	96-00597	Interaction concern for several bottles on carts, maintenance carts, etc. will be resolved by housekeeping.	20A
E2	2-B21-PNL-QV9	96AHQI2			A WR/JO is required to resolve concerns regarding open 'S' hooks on overhead lighting. sign board has been removed.	33A
E2	2-C12-CV-F011		94AEPY1	95-00960	Incoming air line is poorly supported and will be repaired via an ESR. Resolved by ESR 95-00960 Rev. 3	37A
E2	2-C12-V140AO			95-00960	Incoming air line is poorly supported and will be resolved via ESR 95-00960 Rev. 3	41A
E2	2-CAC-TY-4426-1		96AECC2	96-00597	Interaction concerns to be resolved via an ESR include: bolting to adjacent panel P624 (< 1/4" gap).	45B
E2	2-DG1-ENG-CTRL-PNL		96AHQI6		Must raise light fixture to avoid impact and tighten speaker bolts if an interference..	51D
E2	2-DG1-EXCIT-PNL		96AHQI6	96-00597	WR/JO needed to reinstall door bolts.	52B
E2	2-DG1-GEN-CTRL-PNL		96AHQI6	96-00597	WR/JO needed to repair door latches.	54A

Table 2: Outliers Resolved With Work

10/11/97

E2	2-DG2-ENG-CTRL-PNL		96AHQI7		Raise light fixture, speaker to be moved, panel connection bolts	55D
E2	2-DG2-ENG-CTRL-PNL		96AHQI7	96-00597	Install missing bolting on doors	55E
E2	2-DG2-EXCIT-PNL		96AHQI7	96-00597	Add bolts to shut door.	56C
E2	2-DG2-GEN-CTRL-PNL		96AHQI7		Adjust door by adding shim for positive closure. Adjust latch	58C
E2	2-DG3-ENG-CTRL-PNL		96AHQI8		Raise light fixture.	59D
E2	2-DG3-EXCIT-PNL		96AHQI8	96-00597	Has issue with pounding. Add plates on top.	60C
E2	2-DG3-EXCIT-PNL		96AHQI8	96-00597	Add bolts to back of cabinet for positive closure, replace door hardware as necessary..	60D
E2	2-DG3-GEN-CTRL-PNL		96AHQI8	96-00597	Has issue with pounding. Add plates on top.	62C
E2	2-DG3-GEN-CTRL-PNL		96AHQI8		Adjust door latches on rear door.	62D

Table 2: Outliers Resolved With Work

10/11/97

E2	2-DG3-VAC-BL	97ACQYA	97AIUT001		Degraded 4" crankcase vacuum hose to be replaced by WRJO. Rule of the box. Interaction and anchorage concerns were determined to be acceptable based on engineering judgement.	63A
E2	2-DG4-ENG-CTRL-PNL		96AHQI9	96-00597	Has issue with pounding. Add plates on top.	64C
E2	2-DG4-ENG-CTRL-PNL		96AHQI9		Raise light fixture	64D
E2	2-DG4-EXCIT-PNL		96AHQI9	96-00597	Install rear door missing bolts.	65C
E2	2-DG4-GEN-CTRL-PNL		96AHQI9		Remove 2 shims at upper right corner and adjust rear door latch.	67C
E2	2-DGA		TT-035888		Tighten loose bolt at top of MCC. Torque recorded?	68C
E2	2-DGA		97AECT4		Install bolt on EC8 relay panel.	68D
E2	2-DGB-PNL-SQ4			96-00597	Concern with gaps under the baseplates greater than 1/4" should be resolved via a WR/JO to have grout packed under the baseplates.	70B
E2	2-E11-F047B		97ACQY9		WR/JO will be used to repair the corrosion noted on SEWS. SRT judged that valve function was not affected. Otherwise, no further evaluation is required.	88A

Table 2: Outliers Resolved With Work

10/11/97

E2	2-E3		97ACQYJ		Repair door hardware to prevent ratteling.	94A
E2	2-E3		96AHQI2		Interaction concern relates to overhead lights which may fall due to open "S" hooks.	94B
E2	2-E4		97ACQYK		Repair door hardware to prevent ratteling.	95A
E2	2-E4		96AHQI2		Interaction concern relates to overhead lights which may fall due to open "S" hooks.	95B
E2	2-E41-LSL-N002		96AHQIX	96-00597	WR/JO is needed to repair / replace corroded bolting	100A
E2	2-E41-LSL-N002		96AHQIX	96-00597	Body of switch appears loose and needs tightening	100B
E2	2-E41-LSL-N002		96AHQIX	96-00597	Tighten conduit box connection.	100C
E2	2-E41-LSL-N003		96AHQIX	96-00597	WR/JO is needed to repair the grout pad.	101A
E2	2-FO-SV-2012		96AHQI4	96-00597	ESR is required to modify the platform handrail to eliminate interaction. DGT cell #1	108A

Table 2: Outliers Resolved With Work

10/11/97

E2	2-FO-SV-2024		TT-035889		WR/JO needed to tighten flex conduit connection	109A
E2	2-H12-P601	97ACQYQ			Concern about books falling from shelves & file drawers will be resolved by housekeeping.	118B
E2	2-H12-P603	97ACQYQ			Concern about books falling from shelves & file drawers will be resolved by housekeeping.	119B
E2	2-H12-P606		96AHQI2		Close open S-Hooks above cabinets	120C
E2	2-H12-P608		96AHQI2		Close open S-Hooks above cabinets	121C
E2	2-H12-P609		96AHQI2		Close open S-Hooks above cabinets	122C
E2	2-H12-P610		96AHQI2		Close open S-Hooks above cabinets	123C
E2	2-H12-P610	97ACQYR			Unrestrained cart nearby	123H
E2	2-H12-P611		96AHQI2		Close open S-Hooks above cabinets	124D

Table 2: Outliers Resolved With Work

10/11/97

E2	2-H12-P611	97ACQYR			Housekeeping for unrestrained cart	124I
E2	2-H12-P617		96AHQI2		Close open S-Hooks above cabinets	130C
E2	2-H12-P618		96AHQII	96-00597	Door Repair	131E
E2	2-H12-P618	97ACQYR			Unanchored Items nearby.	131I
E2	2-H12-P622		96AHQI2		Close open S-Hooks above cabinets	133C
E2	2-H12-P623		96AHQII	96-00597	Door Repair	134C
E2	2-H12-P623	97ACQYR			Unanchored Items nearby.	134I
E2	2-H12-P624		96AHQI2		Close open S-Hooks above cabinets	135D
E2	2-H12-P626		96AHQI2		Close open S-Hooks above cabinets	136D

Table 2: Outliers Resolved With Work

10/11/97

E2	2-H12-P627		96AHQII	96-00597	Door Repair	137C
E2	2-H12-P628		96AHQII	96-00597	Door Repair	138C
E2	2-H12-P630		96AHQII	96-00597	Door Repair	139C
E2	2-H12-P630		96AHQI2		Close open S-Hooks above cabinets	139D
E2	2-H21-P003		96AECCY		WR/JO is required to remove loose Unistrut from inside cabinet	140C
E2	2-H21-P003		96AECCY		Need to repair door latch which rattles	140D
E2	2-H21-P004		96AHQI2		WR/JO is needed to close open 'S' hooks on light fixtures.	141A
E2	2-H21-P004		97ACQYD		WR/JO is needed to install bulb keepers.	141B
E2	2-H21-P005		97ACQYD		WR/JO is needed to install bulb keepers.	142B

Table 2: Outliers Resolved With Work

10/11/97

E2	2-H21-P009		97ACQY6		ESR is needed to resolve an interaction with the HCU backup cylinders. (Cylinders have been removed from area)	143A
E2	2-H21-P009	Found removed			WR/JO is required to restrain the test apparatus, or housekeeping.	143B
E2	2-H21-P010	Found removed			WR/JO is needed to restrain the test apparatus, or housekeeping.	144A
E2	2-SW-FT-5115		95AJAS1		TT-022753 and WR/JO 95-AJAS1 resolved instrument mounting /anchorage issues.	148A
E2	2-SW-PSL-1178		97ACQYF		Missing mounting bolt / nut need to be replaced, at -17 S. RHR	153A
E2	2-SW-PT-1154		97ACQYG		WR/JO to repair corrosion on top flange. Reference: 93-ASLW1, 93-AKMI1	154A
E2	2-SW-PY-138		97ACEL1		Bolt which attaches valve to support bracket is missing. Needs new bolt	155A
E2	2-SW-TSH-1111		96AHQIE	96-00597	Replace missing attachment bolts.	156A
E2	2-SW-V124-AO		97ACQY8		WR/JO required to repair corrosion on yoke and limit switch.	166B

Table 2: Outliers Resolved With Work

10/11/97

E2	2-SW-V128-AO		96AHQIZ		Conduit requires additional support.	167A
E2	2-SW-V131-AO		96AECC8		Light corrosion on valve yoke and flange bolts will be resolved by WR/JO. (96AHQIA duplicate deleted) Not mentioned on 96AECC8 (will add).	169B
E2	2-TCR-1-HOLLYWOOD	REMOVED			Interaction issue with handling cart nearby	184C
E2	2-TCR-2-HOLLYWOOD	REMOVED			Due to storage of items nearby it's recommended protective zone surround the equipment.	185A
E2	2-VA-2A-FC-RB	97AECT6			Excessive rust on cooler and supports. Reference 93-AKTL1 & 93-BDAN1	191A
E2	2-VA-2B-FCU-RB	97AFEF3			Fan and isolation/support have corrosion to be fixed by WRJO. (Reference 93AKTL1 and 93BDAN1)	199A
E2	2-VA-2D-CU-CB	do in 98	96AFHW1	ESR 96-00372	Item is not anchored to floor, needs to be anchored. (ESR 97-00268 to resolve)	202A
E2	2-VA-2E-CU-CB	do in 98	96AFHX1	ESR 96-00372	Item is not anchored to floor, needs to be anchored. (ESR 97-00268 to resolve)	205A
E2	2-X-LSH-3118	Has Tag			Add ID tag to this component in DG3 Tank Room.	241A

Table 2: Outliers Resolved With Work

10/11/97

E2	2-XU-13		96AHQ11	96-00597	Door Repair	242B
E2	2-XU-13		96AHQ12		Close open S-Hooks above cabinets	242C
E2	2-XU-25		96AHQ12		Close open S-Hooks above cabinets	244C
E2	2-XU-27		96AHQ12		Close open S-Hooks above cabinets	245C
E2	2-XU-28		96AHQ11	96-00597	Door Repair	246B
E2	2-XU-28		96AHQ12		Close open S-Hooks above cabinets	246D
E2	2-XU-30		96AHQ12		Close open S-Hooks above cabinets	249B
E2	2-XU-30	97ACQYR			Interaction with nearby item.	249F
E2	2-XU-30	97ACQYR			Interaction with nearby table frame	249G

Table 2: Outliers Resolved With Work

10/11/97

E2	2-XU-41		96AEC2		Door Repair, will work per 96AEC2	2508
E2	2-XU-41		96AHQI2		Close open S-Hooks above cabinets	250C
E2	2-XU-42		96AHQI2		Close open S-Hooks above cabinets	251C
E2	2-XU-53		96AHQI2		Close open S-Hooks above cabinets	254D
E2	2-XU-63		96AHQI2		Close open S-Hooks above cabinets	258B
E2	2-XU-63	97ACQYR			Housekeeping items for 2 cabinets on wheels that are unrestrained nearby	258F
E2	2-XU-64		96AHQI2		Close open S-Hooks above cabinets	259B
E2	2-XU-64	97ACQYR			Housekeeping items for 2 cabinets on wheels that are unrestrained nearby	259F
E2	2-XU-65		96AHQI2		Close open S-Hooks above cabinets	260B

Table 2: Outliers Resolved With Work

10/11/97

E2	2-XU-65	97ACQYR			Housekeeping Item for unrestrained trash can — Still on location	260F
E2	2-XU-66		96AHQI2		Close open S-Hooks above cabinets	261B
E2	2-XU-66	97ACQYR			Housekeeping Item for unrestrained trash can	261F
E2	2-XU-67		96AHQI2		Close open S-Hooks above cabinets	262B
E2	2-XU-67	97ACQYR			Housekeeping Item for unrestrained desk and chair nearby	262F
E2	2-XU-68		96AHQI2		Close open S-Hooks above cabinets	263B
E2	2-XU-68	97ACQYR			Housekeeping Item for unrestrained desk and chair nearby	263F
E2	2-XU-68		96AECC2	96-00597	Interaction concerns to be resolved via an ESR include: the entire row of cabinets (2-XU-79, 75, 65, 66, 67 & 68) is not bolted together, and inadequate flexibility for conduit between XU-67 and XU-68. A light with open 'S' hooks will be resolved by a W	263I
E2	2-XU-73	97ACQYR			Unanchored items nearby will be fixed by housekeeping	264H

Table 2: Outliers Resolved With Work

10/11/97

E2	2-XU-75		96AECC2	96-00597	Roll cabinets together to XU-65 and XU-79.	265A
E2	2-XU-75		96AHQI2		Close open S-Hooks above cabinets	265C
E2	2-XU-75	97ACQYR			Housekeeping to address nearby table, chair.	265H
E2	2-XU-79		96AECC2	96-00597	Roll cabinets together to XU-75.	268A
E2	2-XU-79		96AHQI2		Close open S-Hooks above cabinets	268C
E2	2-XU-79	97ACQYR			Housekeeping to address nearby table, chair.	268H
E2	2-2A-1-125VDC-BAT		97ACQYB		Gaps between batteries and end rails fixed per PM 91-041 SK1700, 1701, 1702	270A
E2	2-2A-2-125VDC-BAT		97ACQYB		Gaps between batteries and end rails fixed per PM 91-041 SK1700, 1701, 1702	271A
E2	2-2B-1-125VDC-BAT		97ACQYC		Gaps between batteries and end rails fixed per PM 91-041 SK1700, 1701, 1702	272A

Table 2: Outliers Resolved With Work

10/11/97

E2	2-28-2-125VDC-BAT		97ACQYC		Gaps between battarles and end rolls fixed per PM 91-041 SK1700, 1701, 1702	273A

CALC ID 2 SEIS-0028
ATTACHMENT A
PAGE 60 OF 67

Table 3: Outliers Resolved by Calculations and Work

10/11/97

06	2-E7-FB2-XFMR		96AECC9	96-00597	CPL 2sels-1020	Replace connection bolts at transformer.	104B
06	2-E8-FB1-XFMR		96AECCH	96-00597	CPL 2sels-1020	Replace connection bolts at transformer.	106B
14	2-VA-2D-SF-CB	do in 98			S&A 96c1925-r-01	Outlier 14, Capacity vs demand analysis needed for severely corroded anchorage. (ESR 97-00268 to resolve)	204A
14	2-VA-2E-SF-CB	do in 98			S&A 96c1925-r-01	Outlier 14, Capacity vs demand analysis needed for severely corroded anchorage. (ESR 97-00268 to resolve)	207A
17	2-2B-480V		97ACQYS	96-00597	CPL 2sels-1020	Install concrete anchors on side of box.	8A
19	2-SW-TY-4890		97ACQYZ	96-00597	CPL 2sels-0025	Missing lower anchor bolt, needs to be reinstalled.	160B
E2	2-E41-SV-1219D		97ACQY3	96-00597	CPL 2miscel-1035	Provide rigid restraint. Valve is in contact with a vertical run of 3" pipe. The relatively flexible vertical pipe could damage the more rigid valve configuration.	102A
E2	2-2Cb	97ACQYM		96-00597	EQE 250401-C-09	The interaction is a generic concern related to nearby fire extinguishers to be resolved via housekeeping. Also 2-CB-1 fire extinguisher cart.	10A
E2	2-H12-P601		97ACQYW	96-00597	CPL 0sels-1008	Suspended ceiling inadequate, pull grid apart, missing cross T's, uses ball vs 10 wire. Ceiling will be replaced.	118E

Table 3: Outliers Resolved by Calculations and Work

10/11/97

E2	2-H12-P603		97ACQYW	96-00597	CPL 0sets-1008	Suspended ceiling inadequate, pull grid apart, missing cross T's, uses ball vs 10 wire	119C
E2	2-H12-P624		96AECC2	96-00597	CPL 2sets-1020	Bolt cabinets together to 2-CAC-TY 4426-1	135A
E2	2-H21-Pr		96AECCY	96-00597	CPL 2miscel-1034	ESR is required to review impact between attached conduit and overhead ducting.	140A
E2	2-H21-P012		96AHQIU	96-00597	CPL 2miscel-1034	ESR to resolve impact between attached conduit and overhead ducting.	145A
E2	2-IR-RB-4		96AECCZ	96-00597	CPL 2miscel-1033	ESR will resolve concern that HVAC duct may impact conduit at top of the panel. Carts moved per 97ACQYN	147C
E2	2-2XA-2	97ACQYN	97ACQYP	96-00597	2SEIS-0025	The interaction concern relates to LEP tool box and unanchored carts stationed nearby and will be resolved by housekeeping.	14A
E2	2-SW-V124-AO		97ACQY2	96-00597	EQE 250401-C-13	ESR to prevent impact between adjacent light fixture and incoming air line.	166A
E2	2-SW-V130-AO		96AECCD	96-00597	CPL 2miscel-1036	ESR required to resolve incoming air line that requires additional support.	168A
E2	2-SW-V130-AO		96AECCD	96-00597	CPL 2miscel-1036	An adjacent conduit support cantilever that may impact the operator.	168B

Table 3: Outliers Resolved by Calculations and Work

10/11/97

E2	2-SW-V131-AO		96AECC8	96-00597	CPL 2miscel-1036	ESR required for air line that needs additional support.	169A
E2	2-VA-2A-CC-CB	do in 98	96AHQIN		EQE 250401-C-14	Item is unanchored and requires analysis, also requires capacity vs demand analysis. Anchorage issue (97-00268 to resolve)	188C
E2	2-VA-2A-EHE-CB	do in 98	96AHQIN		EQE 250401-C-14	Verification of internal anchorage and load path required (97-00268 to resolve)	190A
E2	2-VA-2A-EHE-CB	do in 98	96AHQIN		EQE 250401-C-14	Capacity vs demand evaluation required. (97-00268 to resolve)	190B
E2	2-VA-2A-RAF-CB	do in 98	96AHQIQ		EQE 250401-C-14	Anchorage and structural load path are severely corroded, need evaluation or fix. Revised SEWS in calc. (97-00268 to resolve)	192A
E2	2-VA-2A-RAF-CB	do in 98	96AHQIQ		EQE 250401-C-14	Capacity vs demand analysis required. Revised SEWS in calc. (97-00268 to resolve)	192B
E2	2-VA-2B-EHE-CB	do in 98	96AHQIP		EQE 250401-C-14	Capacity vs demand evaluation required. (97-00268 to resolve)	197B
E2	2-12B-HZ5		97ACQY4	96-00597	CPL 2miscel-1032	Resolve issue with differential displacement with panel and conduits at top of panel.	1A
E2	2-VA-TT-1603		96AHQIW	96-00597	CPL 2seis-1020	Poorly supported duct overhead will fall on sensor mounted to 2-VA-TT-1603A	237A

Table 3: Outliers Resolved by Calculations and Work

10/11/97

E2	2-B21-F013A		97ACBR2		CPL 2sels-0024	Adjacent duct is in contact with air operator. (Impact with duct in drywell)	23A
E2	2-XU-29		96AHQIF	96-00597	CPL 2sels-1020	Overhead Duct will slide off supports and impact cabinet. Need fix to secure duct	247G
E2	2-XU-30		97ACBRA		EQE 250401-C-20	Embedded Unistrut in ceiling overload	249E
E2	2-B21-F013C		97ACBR3		CPL 2sels-0019	Conduit is loose and can interact SRV solenoid. (Will need to tighten or restrain loose conduit in drywell)	24A
E2	2-XU-63		96AECC2	96-00597	CPL 2sels-1020	Bolt cabinets together to XU-64.	258G
E2	2-XU-64		96AECC2	96-00597	CPL 2sels-1020	Bolt cabinets together to XU-63.	259G
E2	2-XU-66		96AECC2	96-00597	CPL 2sels-1020	Bolt cabinets together: XU-65 and XU-67	261G
E2	2-XU-67		96AECC2	96-00597	CPL 2sels-1020	Bolt cabinets together: XU-65 and XU-68	262G
E2	2-XU-68		96AECC2	96-00597	CPL 2sels-1020	Bolt cabinets together to XU-67.	263G

Table 3: Outliers Resolved by Calculations and Work

10/11/97

E2	2-XU-60		96AECC2	96-00597	CPL 2seis-1020	Bolt cabinets together w/ XU-62.	278A
E2	2-XU-62		96AECC2	96-00597	CPL 2seis-1020	Bolt cabinets together w/ XU-60.	279A
E2	2-2A-1-125VDC-CHGR		96AHQIH	96-00597	CPL 2seis-1020	Bolt adjacent chargers together.	2A
E2	2-C12-A001A-N2		97ACQY6	96-00597	CPL 2seis-0025	Need to properly restrain bottle carts. The passive function of this item resolves any database concerns.	35A
E2	2-C12-CV-F010		96AHQIC	96-00597	CPL 2seis-1020	Piping attached through a flexible hose lacks adequate support and will be repaired via an ESR.	36A
E2	2-C12-V139			95-00960	CPL 2seis-0022	The interaction concern regarding an attached 1" line and tubing with long spans resolved via ESR 95-00960 Rev. 3.	40B
E2	2-C72-S001A		97ACBR8	96-00597	EQE 250401-C-15	Expansion anchors are used with vibration isolators, some corrosion was noted. Add bumper pads, paint floor.	42A
E2	2-C72-S001A	97ACGYM		96-00597	EQE 250401-C-09	Mounting of nearby fire extinguishers require review. Replaced fire extinguisher brackets.	42B
E2	2-C72-S001B		97ACBR9	96-00597	EQE 250401-C-15	Missing anchor bolt. Vibration isolators present. Anchorage review required. Add bumper pads, paint floor.	43A

Table 3: Outliers Resolved by Calculations and Work

10/11/97

E2	2-CAC-TY-4426-1	96AECC2			EQE 250401-C-20	Interaction concerns to be resolved via an ESR include: rigidify attached conduit and S-Hooks. Reference w/ 96AECC2. Also see EQE-R-001. This cabinet is in group (2-14). There are no SSEL relays, no credible seismic interactions.	45C
E2	2-2A-2-125VDC-CHGR		96AHQIH	96-00597	CPL 2seis-1020	Bolt adjacent chargers together.	4A
E2	2-DG1-ENG-CTRL-PNL		96AHQI6	96-00597	CPL 2seis-1020	Has an issue with pounding. Will add plates at top.	51C
E2	2-DG2-ENG-CTRL-PNL		96AHQI7	96-00597	CPL 2seis-1020	Has an issue with pounding. Will add plates at top.	55C
E2	2-DG3-ENG-CTRL-PNL		96AHQI8	96-00597	CPL 2seis-1020	Has issue with pounding. Add plates on top.	59C
E2	2-2A-UPS	97ACQYM		96-00597	EQE 250401-C-09	The interaction is a generic concern related to adjacent fire extinguishers to be resolved by housekeeping. Replaced brackets.	5A
E2	2-2A-UPS		96AECCF	96-00597	CPL 2seis-1020	Bolt panel to column to prevent pounding	5B
E2	2-2B-1-125VDC-CHGR		96AHQIG	96-00597	CPL 2seis-1020	Bolt adjacent chargers together to prevent the potential pounding concern (1/4" gap to 2B-2).	6A
E2	2-2B-2-125VDC-CHGR		96AHQIG	96-00597	CPL 2seis-1020	Bolt adjacent chargers together to prevent the potential pounding concern (1/4" gap to 2B-1 and 24B-1).	7A

Table 3: Outliers Resolved by Calculations and Work

10/11/97

E2	2-E11-TE-N004B		96AHQIB	96-00597	CP&L 2sets-1020	New support is required to resolve the interaction concerns regarding conduit attached to this temperature element and anchored to a poorly restrained frame.	89A
E2	2-2CA	97ACQYM		96-00597	EQE 250401-C-09	The interaction is a generic concern related to nearby fire extinguishers to be resolved via housekeeping. Also 2-CB-1 fire extinguisher cart.	9A
G	Cable support frame		Unit 1		EQE 250401-C-07	Outlier RW-3, frames have occasional bracing, verify lateral and longitudinal capacity (Unit 1)	275A
G	Panel QB5 frame		96AECCG	96-00597	CPL 2miscel-1052	Outlier RW-5, top of mini steam tunnel, replace anchorage and base plates	276A

CALC ID 2SEIS-0028
ATTACHMENT A
PAGE 67 OF 67