

OCONEE NUCLEAR STATION

USI A-46 RELAY EVALUATION REPORT

Supplement 1



A Duke Energy Company

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EXECUTIVE SUMMARY

This USI A-46 Supplement 1 Report is for the purpose of incorporating the Emergency Circulating Cooling Water (ECCW) system upgrades for the Oconee Nuclear Station Unit 3 as they affect the scope of USI A-46. This action is the direct result of discussions between the Staff and Duke Power's Oconee Nuclear Station regarding the modifications associated with upgrading the ECCW System, Technical Specification Change #96-09, and its relationship to the USI A-46 effort. This commitment is outlined in a letter dated March 19, 1998 to the Staff regarding the referenced Technical Specification Change.

The USI A-46 Report dated September 1998 was Revision 1 of the original submittal incorporating the entire Unit 2 modifications associated with the ECCW upgrade as they impacted the USI A-46 project. In addition, all the information contained within that submittal, both the Seismic (walkdown) and Relay Evaluation Reports, had been updated and reflected the progress made in the resolution of outliers identified in the original December 15, 1997 submittal. That September 1998 submittal, revision 1, replaced the original submittal in its entirety.

This report supplements the previous report submitted in September 1998. Therefore, it addresses only the scope of equipment identified in the U3 Service Water Modification effort (or ECCW Upgrade) required for the USI A-46 review and not included in the previous submittal.

The walkdown and relay review results are in separate reports contained within one submittal. Of the 42 items requiring a walkdown, 37 of those met the GIP criteria as currently installed. The 5 GIP Outliers have been resolved. The walkdown results and related evaluations verified these supplemental items as being seismically adequate.

A total of 134 contact devices have been subjected to the chatter review in support to this supplemental report. All the relays were found to have met the guidelines set forth in the GIP. There were no low ruggedness relays and no relay outliers.

There were no additional cable tray reviews or cable trench reviews identified.

For additional information regarding the Oconee Nuclear Station USI A-46 effort, see the Executive Summary found in the 'Oconee Nuclear Station USI A-46 Seismic Evaluation Report, September 1998.'

Section 1

INTRODUCTION

1.1 PURPOSE

The purpose of this supplemental report is to document the USI A-46 relay seismic functionality review for Oconee Nuclear Station. This report supplements the previous report submitted in September 1998. Equipment associated with the Unit 3 Service Water Modification (also called Emergency Circulating Cooling Water [ECCW] upgrade) that has an impact on the established Safe Shutdown Equipment List is addressed within this supplement.

A review of relays associated with safe shutdown equipment for this upgrade is required as part of the resolution of USI A-46. The purpose of the relay functionality review is to verify that safe shutdown systems associated with this upgrade would not be prevented from performing their safe shutdown functions because of relay (contact) chatter during the period of strong ground motion associated with Design Basis Earthquake (DBE).

The adequacy of the equipment housing these relays is addressed in a separate portion of this report entitled, "Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, Supplement 1, April 1999."

1.2 SCOPE

This report addresses the equipment which was included in the Safe Shutdown Equipment List associated with the installation of the Unit 3 ECCW upgrade. All associated equipment walkdown evaluations relating to this modification are documented in a separate portion of this report entitled, "Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, Supplement 1, April 1999."

1.3 PLANT DESCRIPTION

See Section 1.3 of the submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

1.4 BACKGROUND

See Section 1.4 of the submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

1.5 USI A-46 RELAY EVALUATION

See Section 1.5 of the submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

1.6 REPORT ORGANIZATION

Section 1, "Introduction" - This section describes the purpose and scope of this report.

Section 2, "Results and Planned Actions" - This section contains a summary of the USI A-46 relay review for Oconee Nuclear Station.

Section 3, "Technical Approach" - Contains a description of the overall technical approach and assumptions used in the review.

Section 4, "Safe Shutdown Equipment" - A summary of the equipment included in the relay review is contained in Section 4.

Section 5, "Results of Relay Screening and Evaluation" - This section documents relay screening and evaluation results.

Section 6, "Significant or Programmatic Deviations from the GIP" - A statement is made that no significant or programmatic deviations from the GIP were made.

Section 7, "Third Party Audit Summary" - Third-Party Audits are addressed here by referring back to the seismic walkdown report.

Section 8, "References" - The references used to support the evaluation documented by this report are listed.

Appendix A, "Glossary of Terms" - Provides a tabulation of terms used in the report.

Appendix B, "System/Circuit Evaluation Discussions" - Includes discussions of plant systems and associated circuit evaluations.

Appendix C, "Relay Seismic Capacity Data" - This appendix tabulates relay capacity data as used in relay screening.

Appendix D, "Essential Contact Device List" - A list of essential contact devices, including the relay identification numbers, the manufacturers' model numbers, and plant location where the relay is mounted is included.

Appendix E, "Relays Screened using GIP Switchgear Relay Methodology" - Lists contact devices screened as seismically rugged using the GIP switchgear screening techniques.

Appendix F, "Essential Contact Device Enclosures" - This appendix lists enclosures containing essential contact devices.

Appendix G, "Résumé of Lead Relay Reviewer" - Includes the résumé of the lead relay reviewer.

RESULTS AND PLANNED ACTIONS

2.1 SUMMARY OF RESULTS

This section documents the results of the seismic functionality review of relays affecting USI A-46 safe shutdown components associated with the Unit 3 Service Water Modification (also called Emergency Circulating Cooling Water [ECCW] upgrade). The review was performed in accordance with the methodology and procedures established for plant specific resolution of USI A-46; specifically, the Generic Implementation Procedure (GIP), the NRC safety evaluation report on the GIP, and EPRI report NP-7148-SL. Table 2-1 provides a summary of the results of that review as they relate to the addition of the Unit 3 Service Water System as well as revisions to Unit 2 Service Water System. This table includes each classification of relay screening employed and a quantity for each classification.

The Oconee Nuclear Station Safe Shutdown Equipment List (SSEL) items requiring a relay review are included in Section 4. Relay reviews were performed for each of these items. These reviews are documented in Section 5 of this report and summarized here in Section 2.

2.2 RELAY WALKDOWN ACTIVITIES

The field walkdown portion of the relay functionality review was performed in conjunction with the seismic walkdowns by the Seismic Review Teams. Relay type, cabinet location and mounting were spot checked by the walkdown team with no significant discrepancies noted. Relay mountings were reviewed for proper mounting.

2.3 RELAY OUTLIERS

As can be seen in Table 2-1 and as noted in Table 2-2, no relay outliers were identified as part of this supplement.

2.4 COMPLETION ACTIVITIES

No relay outliers were identified as part of this supplement. Therefore, no further action is required to complete relay outlier activities.

Table 2-1 (Supplement 1)
Oconee Nuclear Station
Summary of Contact Device
Screening Results

Sorted by: Device Evaluation

Page 1 of 1

USI A-46 Device Evaluation/Screening Category	Quantity
Chatter Acceptable (Non-Essential)	44
Chatter Not Acceptable (Outliers Requiring Further Testing or Evaluation)	0
Low Ruggedness (Outliers To Be Replaced)	0
Not Vulnerable to Contact Chatter	51
Screened using EPRI Relay GERS	0
Screened using GIP Switchgear Relay Methodology	9
Screened using Seismic Test Report and/or Calculation	30
Total	134

Table 2-2 (Supplement 1)
Oconee Nuclear Station
Summary of Outlier Contact Devices

Page 1 of 1

No Outlier Contact Devices were identified as part of this supplement.

Section 3

TECHNICAL APPROACH

The technical approach used for relay evaluation was the same as described in "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998." As noted in Table 3-1, no low-ruggedness relays were identified as part of this supplement.

Table 3-1 (Supplement 1)
Oconee Nuclear Station
Low Ruggedness Relays

Page 1 of 1

No Low Ruggedness Relays were identified as part of this supplement.

Section 4

SAFE SHUTDOWN EQUIPMENT

4.1 RELAY REVIEW SSEL

Safe Shutdown Functions and Path Selections are discussed in the "Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, Supplement 1, April 1999." portion of this submittal.

Table 4-1 lists the SSEL equipment items requiring a relay review or required to support the relay review for Oconee Nuclear Station. Equipment on this list directed the relay reviewer to identify the essential and non-essential relays to be evaluated. The relay evaluation of each of these items is contained in Section 5 of this report.

Table 4-1 (Supplement 1)

SAFE SHUTDOWN EQUIPMENT LIST (SSEL) FOR RELAY REVIEW
OCONEE NUCLEAR STATION

Page 1 of 2

SORTED BY EQUIPMENT ID

Equip Class	Equipment ID	System/Equipment Description	Bldg	Floor Elev
05	0HPSPU0001	HPSW STANDBY PUMP A	TB	775'+0"
05	0HPSPU0002	HPSW STANDBY PUMP B	TB	775'+0"
05	0HPSPU0003	HPSW JOCKEY PUMP	TB	775'+0"
18	2ESVPT0001	ESV TANK PRESSURE TRANSMITTER	ESV	797'+6"
18	2ESVPT0002	ESV TANK PRESSURE TRANSMITTER	ESV	797'+6"
05	2ESVPU0001	ESV PUMP 2A	ESV	797'+6"
05	2ESVPU0002	ESV PUMP 2B	ESV	797'+6"
05	2ESVPU0003	ESV PUMP 2C	ESV	797'+6"
08B	2ESVVA0028	ESV TANK MIN. FLOW VALVE	ESV	797'+6"
08B	2ESVVA0029	ESV TANK MIN. FLOW VALVE	ESV	797'+6"
08A	2LPSVA0139	NONESSENTIAL HEADER ISOLATION VALVE	TB	775'+0"
08B	2SSWVA0155	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"
08B	2SSWVA0156	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"
08B	2SSWVA0157	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"
20	3ESV1	ESV PUMP CONTROLS RELAY CABINET 3ESV1	ESV	797'+6"
20	3ESV2	ESV PUMP CONTROLS RELAY CABINET 3ESV2	ESV	797'+6"
20	3ESV3	ESV PUMP CONTROLS RELAY CABINET 3ESV3	ESV	797'+6"
20	3ESVLC	UNIT 3 ESV LOCAL CONTROL PANEL	ESV	797'+6"

Table 4-1 (Supplement 1)

SAFE SHUTDOWN EQUIPMENT LIST (SSEL) FOR RELAY REVIEW
OCONEE NUCLEAR STATION

Page 2 of 2

SORTED BY EQUIPMENT ID

Equip Class	Equipment ID	System/Equipment Description	Bldg	Floor Elev
18	3ESVPT0001	ESV TANK PRESSURE TRANSMITTER	ESV	797'+6"
18	3ESVPT0002	ESV TANK PRESSURE TRANSMITTER	ESV	797'+6"
05	3ESVPU0001	ESV PUMP 3A	ESV	797'+6"
05	3ESVPU0002	ESV PUMP 3B	ESV	797'+6"
05	3ESVPU0003	ESV PUMP 3C	ESV	797'+6"
08B	3ESVVA0028	ESV TANK MIN. FLOW VALVE	ESV	797'+6"
08B	3ESVVA0029	ESV TANK MIN. FLOW VALVE	ESV	797'+6"
08B	3SSWVA0155	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"
08B	3SSWVA0156	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"
08B	3SSWVA0157	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"

Section 5

RESULTS OF FUNCTIONAL SCREENING OF RELAYS

5.1 INTRODUCTION

This section documents the relay screening and evaluations for each of the SSEL relay review equipment items listed in Section 4 of this report. The A-46 Relay Screening and Evaluation, Form G.4 - Contact Device Tabulation forms were used to summarize the relay review and provide a traceable record of the reviews.

5.2 A-46 RELAY SCREENING AND EVALUATION

See Section 5.2 of the submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

Table 5-1 (Supplement 1)

**USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION**

Page 1 of 26

SYSTEM Subsystem	TABLE OF CONTENTS	Page
U0 HIGH PRESSURE SERVICE WATER		
Pumps		3
U1 600/208V MOTOR CONTROL CENTERS		
600 V		5
U1 600V PWR (LOAD CENTERS)		
1X03		6
U2 EMERGENCY SIPHON VACUUM		
Heat Trace		7
U2 EMERGENCY SIPHON VACUUM		
Instrumentation		8
U2 EMERGENCY SIPHON VACUUM		
Pumps		9
U2 EMERGENCY SIPHON VACUUM		
Valves		12
U2 LOW PRESSURE SERVICE WATER		
Valves		13
U2 SEAL WATER		
Instrumentation		14
U2 SEAL WATER		
Valves		15
U3 208V PWR (PPB)		
AC PWR		16
U3 240/120V AC PWR		
AC PWR		17
U3 EMERGENCY SIPHON VACUUM		
Heat Trace		18

Table 5-1 (Supplement 1)

**USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION**

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SYSTEM	TABLE OF CONTENTS	Page
Subsystem		
U3 EMERGENCY SIPHON VACUUM		
Instrumentation		19
U3 EMERGENCY SIPHON VACUUM		
Pumps		20
U3 EMERGENCY SIPHON VACUUM		
Valves		23
U3 SEAL WATER		
Instrumentation		24
U3 SEAL WATER		
Valves		25

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U0 High Pressure Service Water

SUB SYSTEM: Pumps

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
0HPSPU0001 HPSW STANDBY PUMP A			
B2T-10 4KV SWGR B2T BKR 10 (HPSW STANDBY PUMP A)	OEE-117-24A Rev 3	ITE 5HK-350 (1200 A) B2T	NV BH 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
0HPSPS0164 HPSW PRESSURE SWITCH 164 FOR PUMP CONTROL RELAY CR-90	OEE-028-02 Rev 12	United Electric J302-9765-453 0HPSTK0001	CA YD
<i>CA - Contact Chatter Is Acceptable Because Chatter Does Not Affect The System's Ability To Operate After SSE.</i>			
0HPSPS0165 HPSW PRESSURE SWITCH 165 FOR PUMP CONTROL RELAY CR-70	OEE-028-02 Rev 12	United Electric J302-9765-453 0HPSTK0001	CA YD
<i>CA - Contact Chatter Is Acceptable Because Chatter Does Not Affect The System's Ability To Operate After SSE.</i>			
0HPSPS0166 HPSW PRESSURE SWITCH 166 FOR PUMP CONTROL RELAY CR-60	OEE-028-02 Rev 12	United Electric J302-9765-453 0HPSTK0001	CA YD
<i>CA - Contact Chatter Is Acceptable Because Chatter Does Not Affect The System's Ability To Operate After SSE.</i>			
27(B2T-10) HPSW STANDBY PUMP A UV RLY	OEE-117-24A Rev 3	WESTINGHOUSE CV-2 (1875508) B2T	EVAL (GIP-2 SECTION 6.4.2) BH 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50-51X(B2T-10) HPSW STANDBY PUMP A OC RLY (X PHASE)	OEE-117-24A Rev 3	WESTINGHOUSE CO-5 (1875241) B2T	EVAL (GIP-2 SECTION 6.4.2) BH 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50-51Z(B2T-10) HPSW STANDBY PUMP A OC RLY (Z PHASE)	OEE-117-24A Rev 3	WESTINGHOUSE CO-5 (1875241) B2T	EVAL (GIP-2 SECTION 6.4.2) BH 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50G(B2T-10) HPSW STANDBY PUMP A GROUND OC RLY	OEE-117-24A Rev 3	ITE GR-5 (202D6141) B2T	NV BH 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
CR-60 HPSW PUMP AUX CONTROL RELAY CR-60	OEE-028-02 Rev 12	CUTLER-HAMMER D23MR80A STTC	CA AB 809'+0"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Does Not Affect The System's Ability To Operate After SSE.</i>			
CR-70 HPSW PUMP AUX CONTROL RELAY CR-70	OEE-028-02 Rev 12	CUTLER-HAMMER D23MR80A STTC	CA AB 809'+0"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Does Not Affect The System's Ability To Operate After SSE.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U0 High Pressure Service Water**SUB SYSTEM: **Pumps**

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Chatter Evaluation</i>			
CR-90 HPSW PUMP AUX CONTROL RELAY CR-90	OEE-028-02 Rev 12	CUTLER-HAMMER D23MR80A STTC	CA AB 809'+0"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Does Not Affect The System's Ability To Operate After SSE.</i>			
0HPSPU0002			
HPSW STANDBY PUMP B			
B1T-04 4KV SWGR B1T BKR 04 (HPSW STANDBY PUMP B)	OEE-117-05A Rev 2	ITE 5HK-350 (1200 A) B1T	NV BH 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
27(B1T-04) HPSW STANDBY PUMP B UV RLY	OEE-117-05A Rev 2	WESTINGHOUSE CV-2 (1875508) B1T	EVAL (GIP-2 SECTION 6.4.2) BH 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50-51X(B1T-04) HPSW STANDBY PUMP B OC RLY (X PHASE)	OEE-117-05A Rev 2	WESTINGHOUSE CO-5 (1875241) B1T	EVAL (GIP-2 SECTION 6.4.2) BH 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50-51Z(B1T-04) HPSW STANDBY PUMP B OC RLY (Z PHASE)	OEE-117-05A Rev 2	WESTINGHOUSE CO-5 (1875241) B1T	EVAL (GIP-2 SECTION 6.4.2) BH 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50G(B1T-04) HPSW STANDBY PUMP B GROUND OC RLY	OEE-117-05A Rev 2	ITE GR-5 (202D6141) B1T	NV BH 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
0HPSPU0003			
HPSW JOCKEY PUMP			
1XE-R01B/(0HPSPU0003)/MS 600V MCC 1XE-R01B STARTER (0HPSPU0003)	OEE-028-05 Rev 5	Clark/AO Smith BUL 6013 CY-3 1XE	EVAL (MCC QUAL) TB 775'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
1XE-R01B/(0HPSPU0003)/MCB 600V MCC 1XE BKR R01B (0HPSPU0003)	OEE-028-05 Rev 5	GENERAL-ELECTRIC THEF (480/1000 A) 1XE	NV TB 775'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U1 600/208V MOTOR CONTROL**

SUB SYSTEM: **600 V**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
1X03-04C 600V LC 1X03 BKR 04C (600V MCC 1XE) (NORM FEED) <i>NV - Not Vulnerable To Contact Chatter.</i>	OEE-116-03 Rev 6	ITE K1600 (700 A) 1X03	NV TB 796'+0"
1XE-F01A/MCB 600V MCC 1XE BKR F01A (1XE NORM FDR BKR) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-703-B Rev 40	GENERAL-ELECTRIC TB8 (800 A) 1XE	NV TB 775'+0"
1X02-06C 600V LC 1X02 BKR 06C (600V MCC 1XE) (EMER FEED) <i>NV - Not Vulnerable To Contact Chatter.</i>	OEE-116-04 Rev 0	ITE K1600 (700 A) 1X02	NV TB 796'+0"
1XE-R01A/MCB 600V MCC 1XE BKR R01A (1XE EMER FDR BKR) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-703-B Rev 40	GENERAL-ELECTRIC TB8 (800 A) 1XE	NV TB 775'+0"

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U1 600V PWR (LOAD CENTERS)

SUB SYSTEM: 1X03

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
1TE-13 4KV SWGR 1TE BKR 13 (600V XFMR 1X03)	OEE-117-80 Rev 5	ITE 5HK-350 (1200 A) 1TE	NV TB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
27(1TE-13) XFMR 1X03 UV RLY	OEE-117-80 Rev 5	WESTINGHOUSE CV-2 (1875508) 1TE	EVAL (GIP-2 SECTION 6.4.2) TB 796'+0"
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50-51X(1TE-13) XFMR 1X03 OC RLY (X PHASE)	OEE-117-80 Rev 5	WESTINGHOUSE CO-8 (1875277) 1TE	EVAL (GIP-2 SECTION 6.4.2) TB
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50-51Z(1TE-13) XFMR 1X03 OC RLY (Z PHASE)	OEE-117-80 Rev 5	WESTINGHOUSE CO-8 (1875277) 1TE	EVAL (GIP-2 SECTION 6.4.2) TB
<i>EVAL - Seismically Adequate Per Switchgear Function.</i>			
50G(1TE-13) XFMR 1X03 FDR GROUND OC RLY	OEE-117-80 Rev 5	ITE GR-5 (202D6141) 1TE	NV TB
<i>NV - Not Vulnerable To Contact Chatter.</i>			
1X03-04A 600V LC 1X03 BKR 04A (1X03 NORM FDR BKR)	O-703-B Rev 40	ITE K2000 (1600 A) 1X03	NV TB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
27(1X03) 600V LC 1X03 UV RLY	OEE-116-02 Rev 3	WESTINGHOUSE CV-7 (1875524) 1X03	CA
<i>CA - Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.</i>			
27X(1X03) 600V LC 1X03 AUX UV RLY	OEE-116-02 Rev 3	GENERAL-ELECTRIC HFA51A46F 1X03	CA TB 796'+0"
<i>CA - Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.</i>			
27X1(1X03) 600V LC 1X03 AUX UV RLY	OEE-116-02 Rev 3	GENERAL-ELECTRIC HFA65D62F (Low Ruggedness) 1X03	CA TB 796'+0"
<i>CA - Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.</i>			
27X5(1X03) 600V LC 1X03 AUX UV RLY	OEE-116-02 Rev 3	GENERAL-ELECTRIC HFA51A42F 1X03	CA TB 796'+0"
<i>CA - Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U2 Emergency Siphon Vacuum**

SUB SYSTEM: **Heat Trace**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Heat Trace for 2ESVVA0001</i> HEAT TRACE FOR 2ESVVA0001	OEE-428-02-26 Rev 0	RAYCHEM 10BTV1-CT 2ESVVA0001	NV YD 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2ESVIT0003 FLOAT VALVE 2ESV-1 ISOLATED SIGNAL TRANSMITTER	OEE-428-02-26 Rev 0	ROCHESTER INSTRUMENTS XSC-1300L-20012 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SKM-01 240/120V PPB 2SKM BKR 01 (HEAT TRACE FOR 2ESVVA0001)	OEE-428-02-26 Rev 0	GENERAL-ELECTRIC THQB2115 (15 A) 2SKM	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
<i>Heat Trace for 2ESVVA0002</i> HEAT TRACE FOR 2ESVVA0002	OEE-428-02-27 Rev 0	RAYCHEM 10BTV1-CT 2ESVVA0002	NV YD 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2ESVIT0004 FLOAT VALVE 2ESV-2 ISOLATED SIGNAL TRANSMITTER	OEE-428-02-27 Rev 0	ROCHESTER INSTRUMENTS XSC-1300L-20012 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SKN-01 240/120V PPB 2SKN BKR 01 (HEAT TRACE FOR 2ESVVA0002)	OEE-428-02-27 Rev 0	GENERAL-ELECTRIC THQB2115 (15 A) 2SKN	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U2 Emergency Siphon Vacuum**SUB SYSTEM: **Instrumentation**

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
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Chatter Evaluation

2ESVP0001 ESV TANK PRESS. INDICATION	OEE-428-02-07 Rev 0	DIXSON SH101AXYX420MADCV 2AB3	NV AB 822'+0"
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NV - Not Vulnerable To Contact Chatter.

2ESVPT0001 ESV TANK PRESSURE TRANSMITTER	OEE-428-02-07 Rev 0	ROSEMOUNT 1152DP5N22T1832P 2ESVPT0001	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2ESVPY0003 ESV VACUUM TANK 2A INSTRUMENTATION DC POWER SUPPLY	OEE-428-02-07 Rev 0	LAMBDA LNS-Y-24 2ESVLCP	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2SKJ-31 208/120V PPB 2SKJ BKR 31 (2ESVP0001)	OEE-428-02-07 Rev 0	SQUARE-D QOB (20 A) 2SKJ	NV AB 809'+0"
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NV - Not Vulnerable To Contact Chatter.

2SKM-09 240/120V PPB 2SKM BKR 09 (2ESVPY0003)	OEE-428-02-07 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKM	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2ESVP0002 ESV TANK PRESS. INDICATION	OEE-428-02-08 Rev 0	DIXSON SH101AXYX420MADCV 2AB3	NV AB 822'+0"
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NV - Not Vulnerable To Contact Chatter.

2ESVPT0002 ESV TANK PRESSURE TRANSMITTER	OEE-428-02-08 Rev 0	ROSEMOUNT 1152DP5N22T1832P 2ESVPT0002	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2ESVPY0004 ESV VACUUM TANK 2B INSTRUMENTATION DC POWER SUPPLY	OEE-428-02-08 Rev 0	LAMBDA LNS-Y-24 2ESVLCP	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2SKK-31 208/120V PPB 2SKK BKR 31 (2ESVP0002)	OEE-428-02-08 Rev 0	SQUARE-D QOB (20 A) 2SKK	NV AB 809'+0"
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NV - Not Vulnerable To Contact Chatter.

2SKN-09 240/120V PPB 2SKN BKR 09 (2ESVPY0004)	OEE-428-02-08 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKN	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U2 Emergency Siphon Vacuum**SUB SYSTEM: **Pumps**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
2ESVPU0001			
ESV PUMP 2A			
2ASTRT2A ESV PUMP 2A AUTO-START TIME DELAY RELAY	OEE-428-02-01 Rev 0	AGASTAT E7012AE 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2ASTRTX2A ESV PUMP 2A AUTO-START AUXILIARY RELAY	OEE-428-02-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2CSX2A ESV PUMP 2A CONTROL SWITCH AUXILIARY RELAY	OEE-428-02-01 Rev 0	CUTLER-HAMMER D26MR802A W/LATCH 2ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2LSTOP2A ESV PUMP 2A LOCAL CONTROL STOP AUXILIARY RELAY	OEE-428-02-01-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2LSTRT2A ESV PUMP 2A LOCAL CONTROL START AUXILIARY RELAY	OEE-428-02-01-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2MX2A ESV PUMP 2A MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-02-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2MXL2A ESV PUMP 2A MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-02-01-01 Rev 0	CUTLER-HAMMER D26MR80A 2ESV1CP	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2PFR2A ESV PUMP 2A POWER FAILURE TIME DELAY RELAY	OEE-428-02-01 Rev 0	AGASTAT E7012AB 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2XS1-F05B/(ESV PUMP 2A)/MS 600V MCC 2XS1-F05B STARTER (ESV PUMP 2A)	OEE-428-02-01 Rev 0	JOSLYN CLARK T13U032-76 2XS1	EVAL (DPC-1393.00-00-0032) AB 796'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2XS1-F05B/(ESV PUMP 2A)/MCB 600V MCC 2XS1 BKR F05B (ESV PUMP 2A)	OEE-428-02-01 Rev 0	GENERAL-ELECTRIC THED136040WL (40 A) 2XS1	NV AB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U2 Emergency Siphon Vacuum**SUB SYSTEM: **Pumps**

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Chatter Evaluation</i>			
2ESVPU0002			
ESV PUMP 2B			
2ASTRT2B ESV PUMP 2B AUTO-START TIME DELAY RELAY	OEE-428-02-02 Rev 0	AGASTAT E7012AE 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2ASTRTX2B ESV PUMP 2B AUTO-START AUXILIARY RELAY	OEE-428-02-02 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2CSX2B ESV PUMP 2B CONTROL SWITCH AUXILIARY RELAY	OEE-428-02-02 Rev 0	CUTLER-HAMMER D26MR802A W/LATCH 2ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2LSTOP2B ESV PUMP 2B LOCAL CONTROL STOP AUXILIARY RELAY	OEE-428-02-02-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2LSTRT2B ESV PUMP 2B LOCAL CONTROL START AUXILIARY RELAY	OEE-428-02-02-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2MX2B ESV PUMP 2B MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-02-02 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2MXL2B ESV PUMP 2B MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-02-02 Rev 0	CUTLER-HAMMER D26MR80A 2ESVLCP	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2PFR2B ESV PUMP 2B POWER FAILURE TIME DELAY RELAY	OEE-428-02-02 Rev 0	AGASTAT E7012AB 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2XS2-F03D/(ESV PUMP 2B)/MS 600V MCC 2XS2-F03D STARTER (ESV PUMP 2B)	OEE-428-02-02 Rev 0	JOSLYN CLARK T13UO32-76 2XS2	EVAL (DPC-1393.00-00-0032) AB 796'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2XS2-F03D/(ESV PUMP 2B)/MCB 600V MCC 2XS2 BKR F03D (ESV PUMP 2B)	OEE-428-02-02 Rev 0	GENERAL-ELECTRIC THED136040WL (40 A) 2XS2	NV AB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U2 Emergency Siphon Vacuum

SUB SYSTEM: Pumps

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
2ESVPU0003			
ESV PUMP 2C			
2ASTRT2C ESV PUMP 2C AUTO-START TIME DELAY RELAY	OEE-428-02-03 Rev 0	AGASTAT E7012AE 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2ASTRTX2C ESV PUMP 2C AUTO-START AUXILIARY RELAY	OEE-428-02-03 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2CSX2C ESV PUMP 2C CONTROL SWITCH AUXILIARY RELAY	OEE-428-02-03 Rev 0	CUTLER-HAMMER D26MR802A W/LATCH 2ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2LSTOP2C ESV PUMP 2C LOCAL CONTROL STOP AUXILIARY RELAY	OEE-428-02-03-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2LSTRT2C ESV PUMP 2C LOCAL CONTROL START AUXILIARY RELAY	OEE-428-02-03-01 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2MX2C ESV PUMP 2C MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-02-03 Rev 0	CUTLER-HAMMER D26MR40A 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2MXL2C ESV PUMP 2C MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-02-03-01 Rev 0	CUTLER-HAMMER D26MR804A 2ESVLCF	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2PFR2C ESV PUMP 2C POWER FAILURE TIME DELAY RELAY	OEE-428-02-03 Rev 0	AGASTAT E7012AB 2ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
2XS3-03E/(ESV PUMP 2C)/MS 600V MCC 2XS3-03E STARTER (ESV PUMP 2C)	OEE-428-02-03 Rev 0	JOSLYN CLARK T13UO32-76 2XS3	EVAL (DPC-1393.00-00-0032) AB 796'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
2XS3-03E/(ESV PUMP 2C)/MCB 600V MCC 2XS3 BKR 03E (ESV PUMP 2C)	OEE-428-02-03 Rev 0	GENERAL-ELECTRIC THED136040WL (40 A) 2XS3	NV AB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U2 Emergency Siphon Vacuum

SUB SYSTEM: Valves

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
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2ESVVA0028

ESV TANK MIN. FLOW VALVE

2BCCW 2ESV-28 CONTROL RELAY	OEE-428-02-29 Rev 0	CUTLER-HAMMER D26MR80A 2ESVLCP	CA ESV 797'+6"
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Rugged Relay Whose Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.

2BRS 2ESV-28 CONTROL RELAY	OEE-428-02-29 Rev 0	CUTLER-HAMMER D26MR80A 2ESVLCP	EVAL (OSC-5085) ESV 797'+6"
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EVAL - Seismically Adequate Per Test Report.

2SKN-11 240/120V PPB 2SKN BKR 11 (2ESV-28 CONTROLS)	OEE-428-02-29 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKN	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2ESVVA0029

ESV TANK MIN. FLOW VALVE

2ACCW 2ESV-29 CONTROL RELAY	OEE-428-02-28 Rev 0	CUTLER-HAMMER D26MR80A 2ESVLCP	CA ESV 797'+6"
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Rugged Relay Whose Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.

2ARS 2ESV-29 CONTROL RELAY	OEE-428-02-28 Rev 0	CUTLER-HAMMER D26MR80A 2ESVLCP	EVAL (OSC-5085) ESV 797'+6"
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EVAL - Seismically Adequate Per Test Report.

2SKM-11 240/120V PPB 2SKM BKR 11 (2ESV-29 CONTROLS)	OEE-428-02-28 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKM	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U2 Low Pressure Service Water**

SUB SYSTEM: **Valves**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
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2LPSVA0139

NONESSENTIAL HEADER ISOLATION VALVE

2XS3-05A/(2LPSW-139)/MS 208V MCC 2XS3-05A STARTER (2LPSW-139)	OEE-238-53 Rev 1	CLARK BUL 6030 CY-1 (H1A) 2XS3	EVAL (MCC QUAL) AB 796'+0"
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EVAL - Seismically Adequate Per Test Report.

2XS3-05A/(2LPSW-139)/MCB 208V MCC 2XS3 BKR 05A (2LPSW-139)	OEE-238-53 Rev 1	GENERAL-ELECTRIC THED (35 A) 2XS3	NV AB 796'+0"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U2 Seal Water

SUB SYSTEM: Instrumentation

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
2SSWP1011 ESV PUMP 2A SEAL WATER FLOW INDICATOR	OEE-428-02-12 Rev 0	DIXSON SA101P-QBVRAX1MDLX 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWFT1011 ESV PUMP 2A SEAL WATER FLOW TRANSMITTER	OEE-428-02-12 Rev 0	ROSEMOUNT 1152DP3N92PB 2SSWFT1011	NV ESV
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWSR1011 ESV PUMP 2A SEAL WATER FLOW SQUARE ROOT EXTRACTOR	OEE-428-02-12 Rev 0	ROCHESTER INSTRUMENTS XSC-1330-20012 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWP1012 ESV PUMP 2B SEAL WATER FLOW INDICATOR	OEE-428-02-13 Rev 0	DIXSON SA101P-QBVRAX1MDLX 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWFT1012 ESV PUMP 2B SEAL WATER FLOW TRANSMITTER	OEE-428-02-13 Rev 0	ROSEMOUNT 1152DP3N92PB 2SSWFT1012	NV ESV
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWSR1012 ESV PUMP 2B SEAL WATER FLOW SQUARE ROOT EXTRACTOR	OEE-428-02-13 Rev 0	ROCHESTER INSTRUMENTS XSC-1330-20012 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWP1013 ESV PUMP 2C SEAL WATER FLOW INDICATOR	OEE-428-02-14 Rev 0	DIXSON SA101P-QBVRAX1MDLX 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWFT1013 ESV PUMP 2C SEAL WATER FLOW TRANSMITTER	OEE-428-02-14 Rev 0	ROSEMOUNT 1152DP3N92PB 2SSWFT1013	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SSWSR1013 ESV PUMP 2C SEAL WATER FLOW SQUARE ROOT EXTRACTOR	OEE-428-02-14 Rev 0	ROCHESTER INSTRUMENTS XSC-1330-20012 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2ESVPY0005 ESV VACUUM TANK 2C INSTRUMENTATION DC POWER SUPPLY	OEE-428-02-14 Rev 0	LAMBDA LNS-Y-24 2ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
2SKP-02 240/120V PPB 2SKP BKR 02 (2SSWP1013 CONTROLS)	OEE-428-02-14 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U2 Seal Water**

SUB SYSTEM: **Valves**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
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2SSWVA0155

ESV PUMP SEAL SUPPLY VALVE

2SKM-12 240/120V PPB 2SKM BKR 12 (2SSW-155 CONTROLS)	OEE-428-02-04 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKM	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2SSWVA0156

ESV PUMP SEAL SUPPLY VALVE

2SKN-12 240/120V PPB 2SKN BKR 12 (2SSW-156 CONTROLS)	OEE-428-02-05 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKN	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

2SSWVA0157

ESV PUMP SEAL SUPPLY VALVE

2SKP-01 240/120V PPB 2SKP BKR 01 (2SSW-157 CONTROLS)	OEE-428-02-06 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 2SKP	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U3 208V PWR (PPB)**

SUB SYSTEM: **AC PWR**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
3XS1-R03BB/(3SKJ)/MCB 208V MCC 3XS1 BKR R03BB (3SKJ) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2703-G Rev 49	GENERAL-ELECTRIC THED (70 A) 3XS1	NV AB 809'+0"
3XS2-R03CT/(3SKK)/MCB 208V MCC 3XS2 BKR R03CT (3SKK) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2703-G Rev 49	GENERAL-ELECTRIC THED (70 A) 3XS2	NV AB 809'+0"

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U3 240/120V AC PWR**

SUB SYSTEM: **AC PWR**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
3SKM/MAIN BREAKER/MCB 240/120V PPB 3SKM MAIN BREAKER <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2704-C Rev 12	GENERAL-ELECTRIC TEY (40 A) 3SKM	NV ESV 797'+6"
3XS1-F03B/(3SKM)/MCB 600V MCC 3XS1 BKR F03B (3SKM) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2703-G Rev 49	GENERAL-ELECTRIC THED (20 A) 3XS1	NV AB 809'+0"
3SKN/MAIN BREAKER/MCB 240/120V PPB 3SKN MAIN BREAKER <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2704-C Rev 12	GENERAL-ELECTRIC TEY (40 A) 3SKN	NV ESV 797'+6"
3XS2-F03BB/(3SKN)/MCB 600V MCC 3XS2 BKR F03BB (3SKN) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2703-G Rev 49	GENERAL-ELECTRIC THED (20 A) 3XS2	NV AB 809'+0"
3SKP/MAIN BREAKER/MCB 240/120V PPB 3SKP MAIN BREAKER <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2704-C Rev 12	GENERAL-ELECTRIC TEY (15 A) 3SKP	NV ESV 797'+6"
3XS3-03D/(3SKP)/MCB 600V MCC 3XS3 BKR 03D (3SKP) <i>NV - Not Vulnerable To Contact Chatter.</i>	O-2703-G Rev 49	GENERAL-ELECTRIC THED (15 A) 3XS3	NV AB 796'+6"

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U3 Emergency Siphon Vacuum

SUB SYSTEM: Heat Trace

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Heat Trace for 3ESVVA0001</i> HEAT TRACE FOR 3ESVVA0001	OEE-428-03-26 Rev 0	RAYCHEM 5BTVI-CT 3ESVVA0001	NV YD 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3ESVIT0003 FLOAT VALVE 3ESV-1 ISOLATED SIGNAL TRANSMITTER	OEE-428-03-26 Rev 0	ROCHESTER INSTRUMENTS XSC-1300L-20012 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SKM-01 240/120V PPB 3SKM BKR 01 (HEAT TRACE FOR 3ESVVA0001)	OEE-428-03-26 Rev 0	GENERAL-ELECTRIC THQB2115 (15 A) 3SKM	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
<i>Heat Trace for 3ESVVA0002</i> HEAT TRACE FOR 3ESVVA0002	OEE-428-03-27 Rev 0	RAYCHEM 5BTVI-CT 3ESVVA0002	NV YD 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3ESVIT0004 FLOAT VALVE 3ESV-2 ISOLATED SIGNAL TRANSMITTER	OEE-428-03-27 Rev 0	ROCHESTER INSTRUMENTS XSC-1300L-20012 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SKN-01 240/120V PPB 3SKN BKR 01 (HEAT TRACE FOR 3ESVVA0002)	OEE-428-03-27 Rev 0	GENERAL-ELECTRIC THQB2115 (15 A) 3SKN	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U3 Emergency Siphon Vacuum

SUB SYSTEM: Instrumentation

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
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3ESVP0001 ESV TANK PRESS. INDICATION	OEE-428-03-07 Rev 0	DIXSON SH101AXYX420MADCV 3AB3A	NV AB 822'+0"
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NV - Not Vulnerable To Contact Chatter.

3ESVPT0001 ESV TANK PRESSURE TRANSMITTER	OEE-428-03-07 Rev 0	ROSEMOUNT 1152DP5N22T1832P 3ESVPT0001	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3ESVPY0003 ESV VACUUM TANK 3A INSTRUMENTATION DC POWER SUPPLY	OEE-428-03-07 Rev 0	LAMBDA LNS-Y-24 3ESVLCP	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3SKJ-27 208/120V PPB 3SKJ BKR 27 (3ESVP0001)	OEE-428-03-07 Rev 0	SQUARE-D QOB (20 A) 3SKJ	NV AB 809'+0"
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NV - Not Vulnerable To Contact Chatter.

3SKM-09 240/120V PPB 3SKM BKR 09 (3ESVPY0003)	OEE-428-03-07 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKM	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3ESVP0002 ESV TANK PRESS. INDICATION	OEE-428-03-08 Rev 0	DIXSON SH101AXYX420MADCV 3AB3A	NV AB 822'+0"
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NV - Not Vulnerable To Contact Chatter.

3ESVPT0002 ESV TANK PRESSURE TRANSMITTER	OEE-428-03-08 Rev 0	ROSEMOUNT 1152DP5N22T1832P 3ESVPT0002	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3ESVPY0004 ESV VACUUM TANK 3B INSTRUMENTATION DC POWER SUPPLY	OEE-428-03-08 Rev 0	LAMBDA LNS-Y-24 3ESVLCP	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3SKK-27 208/120V PPB 3SKK BKR 27 (3ESVP0002)	OEE-428-03-08 Rev 0	SQUARE-D QOB (20 A) 3SKK	NV AB 809'+0"
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NV - Not Vulnerable To Contact Chatter.

3SKN-09 240/120V PPB 3SKN BKR 09 (3ESVPY0004)	OEE-428-03-08 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKN	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U3 Emergency Siphon Vacuum**

SUB SYSTEM: **Pumps**

Component ID Name <i>Chatter Evaluation</i>	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
3ESVPU0001			
ESV PUMP 3A			
3ASTRT3A ESV PUMP 3A AUTO-START TIME DELAY RELAY	OEE-428-03-01 Rev 0	AGASTAT E7012AE 3ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3ASTRTX3A ESV PUMP 3A AUTO-START AUXILIARY RELAY	OEE-428-03-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3CSX3A ESV PUMP 3A CONTROL SWITCH AUXILIARY RELAY	OEE-428-03-01 Rev 0	CUTLER-HAMMER D26MR802A W/LATCH 3ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3LSTOP3A ESV PUMP 3A LOCAL CONTROL STOP AUXILIARY RELAY	OEE-428-03-01-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV1	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3LSTRT3A ESV PUMP 3A LOCAL CONTROL START AUXILIARY RELAY	OEE-428-03-01-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3MX3A ESV PUMP 3A MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-03-01-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3MXL3A ESV PUMP 3A MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-03-01-01 Rev 0	CUTLER-HAMMER D26MR80A 3ESVLCP	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3PFR3A ESV PUMP 3A POWER FAILURE TIME DELAY RELAY	OEE-428-03-01 Rev 0	AGASTAT E7012AB 3ESV1	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3XS1-F05B/(ESV PUMP 3A)/MS 600V MCC 3XS1-F05B STARTER (ESV PUMP 3A)	OEE-428-03-01 Rev 0	JOSLYN CLARK T13UO32-76 3XS1	EVAL (DPC-1393.00-00-0032) AB 796'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3XS1-F05B/(ESV PUMP 3A)/MCB 600V MCC 3XS1 BKR F05B (ESV PUMP 3A)	OEE-428-03-01 Rev 0	GENERAL-ELECTRIC THED136040WL (40 A) 3XS1	NV AB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U3 Emergency Siphon Vacuum

SUB SYSTEM: Pumps

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Chatter Evaluation</i>			
3ESVPU0002			
ESV PUMP 3B			
3ASTRT3B ESV PUMP 3B AUTO-START TIME DELAY RELAY	OEE-428-03-02 Rev 0	AGASTAT E7012AE 3ESV2	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3ASTRTX3B ESV PUMP 3B AUTO-START AUXILIARY RELAY	OEE-428-03-02 Rev 0	CUTLER-HAMMER D26MR40A 3ESV2	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3CSX3B ESV PUMP 3B CONTROL SWITCH AUXILIARY RELAY	OEE-428-03-02 Rev 0	CUTLER-HAMMER D26MR802A W/LATCH 3ESV2	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3LSTOP3B ESV PUMP 3B LOCAL CONTROL STOP AUXILIARY RELAY	OEE-428-03-02-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV2	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3LSTRT3B ESV PUMP 3B LOCAL CONTROL START AUXILIARY RELAY	OEE-428-03-02-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV2	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3MX3B ESV PUMP 3B MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-03-02-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV2	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3MXL3B ESV PUMP 3B MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-03-02-01 Rev 0	CUTLER-HAMMER D26MR80A 3ESVLCF	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3PFR3B ESV PUMP 3B POWER FAILURE TIME DELAY RELAY	OEE-428-03-02 Rev 0	AGASTAT E7012AB 3ESV2	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3XS2-F02B/(ESV PUMP 3B)/MS 600V MCC 3XS2-F02B STARTER (ESV PUMP 3B)	OEE-428-03-02 Rev 0	JOSLYN CLARK T13U032-76 3XS2	EVAL (DPC-1393.00-00-0032) AB 796'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3XS2-F02B/(ESV PUMP 3B)/MCB 600V MCC 3XS2 BKR F02B (ESV PUMP 3B)	OEE-428-03-02 Rev 0	GENERAL-ELECTRIC THED136040WL (40 A) 3XS2	NV AB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U3 Emergency Siphon Vacuum

SUB SYSTEM: Pumps

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Chatter Evaluation</i>			
3ESVPU0003			
ESV PUMP 3C			
3ASTRT3C ESV PUMP 3C AUTO-START TIME DELAY RELAY	OEE-428-03-03 Rev 0	AGASTAT E7012AE 3ESV3	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3ASTRTX3C ESV PUMP 3C AUTO-START AUXILIARY RELAY	OEE-428-03-03 Rev 0	CUTLER-HAMMER D26MR40A 3ESV3	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3CSX3C ESV PUMP 3C CONTROL SWITCH AUXILIARY RELAY	OEE-428-03-03 Rev 0	CUTLER-HAMMER D26MR802A W/LATCH 3ESV3	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3LSTOP3C ESV PUMP 3C LOCAL CONTROL STOP AUXILIARY RELAY	OEE-428-03-03-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV3	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3LSTRT3C ESV PUMP 3C LOCAL CONTROL START AUXILIARY RELAY	OEE-428-03-03-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV3	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3MX3C ESV PUMP 3C MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-03-03-01 Rev 0	CUTLER-HAMMER D26MR40A 3ESV3	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3MXL3C ESV PUMP 3C MOTOR CONTACTOR AUXILIARY RELAY	OEE-428-03-03-01 Rev 0	CUTLER-HAMMER D26MR804A 3ESVLCP	EVAL (OSC-5085) ESV 797'+6"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3PFR3C ESV PUMP 3C POWER FAILURE TIME DELAY RELAY	OEE-428-03-03 Rev 0	AGASTAT E7012AB 3ESV3	CA ESV 797'+6"
<i>Rugged Relay Whose Contact Chatter Is Acceptable Because Chatter Is Bypassed By Rugged Device(s).</i>			
3XS3-03E/(ESV PUMP 3C)/MS 600V MCC 3XS3-03E STARTER (ESV PUMP 3C)	OEE-428-03-03 Rev 0	JOSLYN CLARK T13UO32-76 3XS3	EVAL (DPC-1393.00-00-0032) AB 796'+0"
<i>EVAL - Seismically Adequate Per Test Report.</i>			
3XS3-03E/(ESV PUMP 3C)/MCB 600V MCC 3XS3 BKR 03E (ESV PUMP 3C)	OEE-428-03-03 Rev 0	GENERAL-ELECTRIC THED136040WL (40 A) 3XS3	NV AB 796'+0"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U3 Emergency Siphon Vacuum

SUB SYSTEM: Valves

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Chatter Evaluation</i>			

3ESVVA0028

ESV TANK MIN. FLOW VALVE

3BCCW 3ESV-28 CONTROL RELAY	OEE-428-03-29 Rev 0	CUTLER-HAMMER D26MR80A 3ESVLCP	CA ESV 797'+6"
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Rugged Relay Whose Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.

3BRS 3ESV-28 CONTROL RELAY	OEE-428-03-29 Rev 0	CUTLER-HAMMER D26MR80A 3ESVLCP	EVAL (OSC-5085) ESV 797'+6"
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EVAL - Seismically Adequate Per Test Report.

3SKN-11 240/120V PPB 3SKN BKR 11 (3ESV-28 CONTROLS)	OEE-428-03-29 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKN	NV ESV 797'+6"
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*NV - Not Vulnerable To Contact Chatter.***3ESVVA0029**

ESV TANK MIN. FLOW VALVE

3ACCW 3ESV-29 CONTROL RELAY	OEE-428-03-28 Rev 0	CUTLER-HAMMER D26MR80A 3ESVLCP	CA ESV 797'+6"
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Rugged Relay Whose Contact Chatter Is Acceptable Because The System Can Tolerate Momentary Interruptions.

3ARS 3ESV-29 CONTROL RELAY	OEE-428-03-28 Rev 0	CUTLER-HAMMER D26MR80A 3ESVLCP	EVAL (OSC-5085) ESV 797'+6"
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EVAL - Seismically Adequate Per Test Report.

3SKM-11 240/120V PPB 3SKM BKR 11 (3ESV-29 CONTROLS)	OEE-428-03-28 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKM	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: U3 Seal Water

SUB SYSTEM: Instrumentation

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
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Chatter Evaluation

3SSWP1011 ESV PUMP 3A SEAL WATER FLOW INDICATOR	OEE-428-03-12 Rev 0	DIXSON SA101P-QBVRAX1MDLX 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWFT1011 ESV PUMP 3A SEAL WATER FLOW TRANSMITTER	OEE-428-03-12 Rev 0	ROSEMOUNT 1152DP3N92PB 3SSWFT1011	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWSR1011 ESV PUMP 3A SEAL WATER FLOW SQUARE ROOT EXTRACTOR	OEE-428-03-12 Rev 0	ROCHESTER INSTRUMENTS XSC-1330-20012 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWP1012 ESV PUMP 3B SEAL WATER FLOW INDICATOR	OEE-428-03-13 Rev 0	DIXSON SA101P-QBVRAX1MDLX 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWFT1012 ESV PUMP 3B SEAL WATER FLOW TRANSMITTER	OEE-428-03-13 Rev 0	ROSEMOUNT 1152DP3N92PB 3SSWFT1012	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWSR1012 ESV PUMP 3B SEAL WATER FLOW SQUARE ROOT EXTRACTOR	OEE-428-03-13 Rev 0	ROCHESTER INSTRUMENTS XSC-1330-20012 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWP1013 ESV PUMP 3C SEAL WATER FLOW INDICATOR	OEE-428-03-14 Rev 0	DIXSON SA101P-QBVRAX1MDLX 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWFT1013 ESV PUMP 3C SEAL WATER FLOW TRANSMITTER	OEE-428-03-14 Rev 0	ROSEMOUNT 1152DP3N92PB 3SSWFT1013	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SSWSR1013 ESV PUMP 3C SEAL WATER FLOW SQUARE ROOT EXTRACTOR	OEE-428-03-14 Rev 0	ROCHESTER INSTRUMENTS XSC-1330-20012 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3ESVPY0005 ESV VACUUM TANK 3C INSTRUMENTATION DC POWER SUPPLY	OEE-428-03-14 Rev 0	LAMBDA LNS-Y-24 3ESVLCP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			
3SKP-02 240/120V PPB 3SKP BKR 02 (3SSWP1013 CONTROLS)	OEE-428-03-14 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKP	NV ESV 797'+6"
<i>NV - Not Vulnerable To Contact Chatter.</i>			

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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SYSTEM: **U3 Seal Water**

SUB SYSTEM: **Valves**

Component ID Name	Ref Dwg/Revision	Manufacturer Modelno Location	SAT* Building Floor Elev
<i>Chatter Evaluation</i>			

3SSWVA0155

ESV PUMP SEAL SUPPLY VALVE

3SKM-12 240/120V PPB 3SKM BKR 12 (3SSW-155 CONTROLS)	OEE-428-03-04 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKM	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3SSWVA0156

ESV PUMP SEAL SUPPLY VALVE

3SKN-12 240/120V PPB 3SKN BKR 12 (3SSW-156 CONTROLS)	OEE-428-03-05 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKN	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

3SSWVA0157

ESV PUMP SEAL SUPPLY VALVE

3SKP-01 240/120V PPB 3SKP BKR 01 (3SSW-157 CONTROLS)	OEE-428-03-06 Rev 0	GENERAL-ELECTRIC THQB1115 (15 A) 3SKP	NV ESV 797'+6"
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NV - Not Vulnerable To Contact Chatter.

Table 5-1 (Supplement 1)

USI A-46 CONTACT DEVICE SCREENING AND EVALUATION
FORM G.4 - CONTACT DEVICE TABULATION
OCONEE NUCLEAR STATION

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* SAT Codes

BA - Low Ruggedness
CA - Chatter acceptable.
CNA - Chatter Not Acceptable
NV - Not Vulnerable (mechanically actuated contacts and solid state relays).
GERS - Seismically adequate based on GERS ____; include GERS number.
NA - Component not affected by relays.
CR - Corrective action required.
OA - Operator action.
EVAL - Evaluated using other test reports, etc.
- - No entry necessary

Prepared by

Coy R. Cherry

Date 04-14-99

Reviewed by

L. F. Moss

Date 04/14/99

Section 6

SIGNIFICANT OR PROGRAMMATIC DEVIATIONS FROM THE GIP

No significant or programmatic deviations from the GIP have been made in the Oconee Nuclear Station USI A-46 Implementation Program for this supplement.

Section 7

THIRD-PARTY AUDIT SUMMARY

Third-party audit summary information is contained in Section 10 of the "Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, Supplement 1, April 1999." portion of this submittal.

Section 8

REFERENCES

No additional references added. See Section 8 in submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

Appendix A (Supplement 1)

GLOSSARY OF TERMS

The following are additional terms not included in Appendix A of submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

Emergency Siphon Vacuum	ESV
Siphon Seal Water	SSW
Elevated Water Storage Tank Terminal Cabinet	STTC

Appendix B (Supplement 1)

SYSTEM/CIRCUIT EVALUATION DISCUSSIONS

See Appendix B in submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

Appendix C (Supplement 1)

RELAY SEISMIC CAPACITY DATA

No relays were screened using EPRI Relay GERS as part of this submittal.

Appendix D (Supplement 1)

ESSENTIAL CONTACT DEVICE LIST

Essential contact devices are tabulated in Appendix D.

Appendix D - (Supplement 1)
OCONEE NUCLEAR STATION
ESSENTIAL CONTACT DEVICE LIST

Page 1 of 5

Sorted by: Component ID

Component ID	Name	Manufacturer Model No. Location	Building Floor Elevation
1XE-R01B/(0HPSPU0003)/MS	600V MCC 1XE-R01B STARTER (0HPSPU0003)	Clark/AO Smith BUL 6013 CY-3 1XE	TB 775'+0"
27(1TE-13)	XFMR 1X03 UV RLY	WESTINGHOUSE CV-2 (1875508) 1TE	TB 796'+0"
27(B1T-04)	HPSW STANDBY PUMP B UV RLY	WESTINGHOUSE CV-2 (1875508) B1T	BH 796'+0"
27(B2T-10)	HPSW STANDBY PUMP A UV RLY	WESTINGHOUSE CV-2 (1875508) B2T	BH 796'+0"
2ARS	2ESV-29 CONTROL RELAY	CUTLER-HAMMER D26MR80A 2ESVLCP	ESV 797'+6"
2BRS	2ESV-28 CONTROL RELAY	CUTLER-HAMMER D26MR80A 2ESVLCP	ESV 797'+6"
2CSX2A	ESV PUMP 2A CONTROL SWITCH AUXILIARY RELAY	CUTLER-HAMMER D26MR802A W/LATCH 2ESV1	ESV 797'+6"
2CSX2B	ESV PUMP 2B CONTROL SWITCH AUXILIARY RELAY	CUTLER-HAMMER D26MR802A W/LATCH 2ESV1	ESV 797'+6"
2CSX2C	ESV PUMP 2C CONTROL SWITCH AUXILIARY RELAY	CUTLER-HAMMER D26MR802A W/LATCH 2ESV1	ESV 797'+6"

Appendix D - (Supplement 1)
OCONEE NUCLEAR STATION
ESSENTIAL CONTACT DEVICE LIST

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Sorted by: Component ID

Component ID	Name	Manufacturer Model No. Location	Building Floor Elevation
2LSTOP2A	ESV PUMP 2A LOCAL CONTROL STOP AUXILIARY RELAY	CUTLER-HAMMER D26MR40A 2ESV1	ESV 797'+6"
2LSTOP2B	ESV PUMP 2B LOCAL CONTROL STOP AUXILIARY RELAY	CUTLER-HAMMER D26MR40A 2ESV1	ESV 797'+6"
2LSTOP2C	ESV PUMP 2C LOCAL CONTROL STOP AUXILIARY RELAY	CUTLER-HAMMER D26MR40A 2ESV1	ESV 797'+6"
2MXL2A	ESV PUMP 2A MOTOR CONTACTOR AUXILIARY RELAY	CUTLER-HAMMER D26MR80A 2ESVLCP	ESV 797'+6"
2MXL2B	ESV PUMP 2B MOTOR CONTACTOR AUXILIARY RELAY	CUTLER-HAMMER D26MR80A 2ESVLCP	ESV 797'+6"
2MXL2C	ESV PUMP 2C MOTOR CONTACTOR AUXILIARY RELAY	CUTLER-HAMMER D26MR804A 2ESVLCP	ESV 797'+6"
2XS1-F05B/(ESV PUMP 2A)/MS	600V MCC 2XS1-F05B STARTER (ESV PUMP 2A)	JOSLYN CLARK T13UO32-76 2XS1	AB 796'+0"
2XS2-F03D/(ESV PUMP 2B)/MS	600V MCC 2XS2-F03D STARTER (ESV PUMP 2B)	JOSLYN CLARK T13UO32-76 2XS2	AB 796'+0"
2XS3-03E/(ESV PUMP 2C)/MS	600V MCC 2XS3-03E STARTER (ESV PUMP 2C)	JOSLYN CLARK T13UO32-76 2XS3	AB 796'+0"

Appendix D - (Supplement 1)
OCONEE NUCLEAR STATION
ESSENTIAL CONTACT DEVICE LIST

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Sorted by: Component ID

Component ID	Name	Manufacturer Model No. Location	Building Floor Elevation
2XS3-05A/(2LPSW-139)/MS	208V MCC 2XS3-05A STARTER (2LPSW-139)	CLARK BUL 6030 CY-1 (H1A) 2XS3	AB 796'+0"
3ARS	3ESV-29 CONTROL RELAY	CUTLER-HAMMER D26MR80A 3ESVLCF	ESV 797'+6"
3BRS	3ESV-28 CONTROL RELAY	CUTLER-HAMMER D26MR80A 3ESVLCF	ESV 797'+6"
3CSX3A	ESV PUMP 3A CONTROL SWITCH AUXILIARY RELAY	CUTLER-HAMMER D26MR802A W/LATCH 3ESV1	ESV 797'+6"
3CSX3B	ESV PUMP 3B CONTROL SWITCH AUXILIARY RELAY	CUTLER-HAMMER D26MR802A W/LATCH 3ESV2	ESV 797'+6"
3CSX3C	ESV PUMP 3C CONTROL SWITCH AUXILIARY RELAY	CUTLER-HAMMER D26MR802A W/LATCH 3ESV3	ESV 797'+6"
3LSTOP3A	ESV PUMP 3A LOCAL CONTROL STOP AUXILIARY RELAY	CUTLER-HAMMER D26MR40A 3ESV1	ESV 797'+6"
3LSTOP3B	ESV PUMP 3B LOCAL CONTROL STOP AUXILIARY RELAY	CUTLER-HAMMER D26MR40A 3ESV2	ESV 797'+6"
3LSTOP3C	ESV PUMP 3C LOCAL CONTROL STOP AUXILIARY RELAY	CUTLER-HAMMER D26MR40A 3ESV3	ESV 797'+6"

Appendix D - (Supplement 1)
OCONEE NUCLEAR STATION
ESSENTIAL CONTACT DEVICE LIST

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Sorted by: Component ID

Component ID	Name	Manufacturer Model No. Location	Building Floor Elevation
3MXL3A	ESV PUMP 3A MOTOR CONTACTOR AUXILIARY RELAY	CUTLER-HAMMER D26MR80A 3ESVLCF	ESV 797'+6"
3MXL3B	ESV PUMP 3B MOTOR CONTACTOR AUXILIARY RELAY	CUTLER-HAMMER D26MR80A 3ESVLCF	ESV 797'+6"
3MXL3C	ESV PUMP 3C MOTOR CONTACTOR AUXILIARY RELAY	CUTLER-HAMMER D26MR804A 3ESVLCF	ESV 797'+6"
3XS1-F05B/(ESV PUMP 3A)/MS	600V MCC 3XS1-F05B STARTER (ESV PUMP 3A)	JOSLYN CLARK T13UO32-76 3XS1	AB 796'+0"
3XS2-F02B/(ESV PUMP 3B)/MS	600V MCC 3XS2-F02B STARTER (ESV PUMP 3B)	JOSLYN CLARK T13UO32-76 3XS2	AB 796'+0"
3XS3-03E/(ESV PUMP 3C)/MS	600V MCC 3XS3-03E STARTER (ESV PUMP 3C)	JOSLYN CLARK T13UO32-76 3XS3	AB 796'+0"
50-51X(1TE-13)	XFMR 1X03 OC RLY (X PHASE)	WESTINGHOUSE CO-8 (1875277) 1TE	TB 796'+0"
50-51X(B1T-04)	HPSW STANDBY PUMP B OC RLY (X PHASE)	WESTINGHOUSE CO-5 (1875241) B1T	BH 796'+0"
50-51X(B2T-10)	HPSW STANDBY PUMP A OC RLY (X PHASE)	WESTINGHOUSE CO-5 (1875241) B2T	BH 796'+0"

Appendix D - (Supplement 1)
OCONEE NUCLEAR STATION
ESSENTIAL CONTACT DEVICE LIST

Page 5 of 5

Sorted by: Component ID

Component ID	Name	Manufacturer Model No. Location	Building Floor Elevation
50-51Z(1TE-13)	XFMR 1X03 OC RLY (Z PHASE)	WESTINGHOUSE CO-8 (1875277) 1TE	TB
50-51Z(B1T-04)	HPSW STANDBY PUMP B OC RLY (Z PHASE)	WESTINGHOUSE CO-5 (1875241) B1T	BH 796'+0"
50-51Z(B2T-10)	HPSW STANDBY PUMP A OC RLY (Z PHASE)	WESTINGHOUSE CO-5 (1875241) B2T	BH 796'+0"

Appendix E (Supplement 1)

RELAYS SCREENED USING GIP SWITCHGEAR RELAY METHODOLOGY

Relays screened using GIP switchgear relay methodology are tabulated in Appendix E.

Appendix E - (Supplement 1)
OCONEE NUCLEAR STATION
RELAYS SCREENED USING GIP SWITCHGEAR RELAY METHODOLOGY

Sorted by: Relay ID

Page 1 of 1

Relay ID	Name
27(1TE-13)	XFMR 1X03 UV RLY
27(B1T-04)	HPSW STANDBY PUMP B UV RLY
27(B2T-10)	HPSW STANDBY PUMP A UV RLY
50-51X(1TE-13)	XFMR 1X03 OC RLY (X PHASE)
50-51X(B1T-04)	HPSW STANDBY PUMP B OC RLY (X PHASE)
50-51X(B2T-10)	HPSW STANDBY PUMP A OC RLY (X PHASE)
50-51Z(1TE-13)	XFMR 1X03 OC RLY (Z PHASE)
50-51Z(B1T-04)	HPSW STANDBY PUMP B OC RLY (Z PHASE)
50-51Z(B2T-10)	HPSW STANDBY PUMP A OC RLY (Z PHASE)

Appendix F (Supplement 1)

ESSENTIAL CONTACT DEVICE ENCLOSURES

Enclosures which enclose essential contact devices for this submittal are tabulated in Appendix F.

Appendix F - (Supplement 1)

OCONEE NUCLEAR STATION
ESSENTIAL CONTACT DEVICE ENCLOSURES

Sorted by: Equip ID

Page 1 of 1

Equipment ID	Name
3ESV1	ESV PUMP CONTROLS RELAY CABINET 3ESV1
3ESV2	ESV PUMP CONTROLS RELAY CABINET 3ESV2
3ESV3	ESV PUMP CONTROLS RELAY CABINET 3ESV3
3ESVLCF	UNIT 3 ESV LOCAL CONTROL PANEL

Appendix G (Supplement 1)

RÉSUMÉ OF LEAD RELAY REVIEWER

No additional résumés are needed. See Appendix G of submittal entitled "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, September 1998."

OCONEE NUCLEAR STATION

USI A-46 SEISMIC EVALUATION REPORT

Supplement 1



A Duke Energy Company

APRIL 1999

Revision Status
Supplement 1

<u>Revision</u>	<u>Revision Summary</u>	<u>Date</u>
0	Initial Issue	4/19/99

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EXECUTIVE SUMMARY

The contents of this portion of the submittal are included in the Executive Summary found in the "Oconee Nuclear Station, USI A-46 Relay Evaluation Report, Supplement 1, April 1999" portion of this submittal.

Section 1

INTRODUCTION

1.1 PURPOSE

The purpose of this supplemental report is to document Unresolved Safety Issue (USI) A-46 seismic adequacy evaluations for the Oconee Nuclear Station. This report supplements the previous report submitted with the same name dated September 1998. Equipment associated with the Unit 3 Service Water Modification (also called Emergency Circulating Cooling Water [ECCW] upgrade) that has an impact on the established Safe Shutdown Equipment List is addressed within this supplement.

These seismic evaluations were performed to address NRC Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI), A-46." These seismic evaluations were performed using the Generic Implementation Procedure (GIP) which was developed by the Seismic Qualification Utility Group (SQUG). The associated relay evaluations are documented in a separate report being submitted simultaneously entitled, "Oconee Nuclear Station, USI-A46 Relay Evaluation Report, Supplement 1, April 1999."

1.2 SCOPE

This document is a supplement to the September 1998 report having the same title. This report addresses the seismic adequacy of the equipment identified in the recently updated Safe Shutdown Equipment List associated with the installation of the Unit 3 Service Water Modification. All relay evaluations corresponding to this equipment are documented in a separate report being submitted simultaneously entitled, "Oconee Nuclear Station, USI-A46 Relay Evaluation Report, Supplement 1, April 1999."

For additional information beyond this scope, see Section 1.2 of the previous submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

1.3 PLANT DESCRIPTION

See Section 1.3 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

1.4 BACKGROUND

The resubmittal of the original report dated September 1998 was for the purpose of incorporating the SSEL additions associated with the installation of the Unit 2 Service Water Modifications (or ECCW Upgrades) into the scope of USI A-46. This was a commitment outlined in a letter dated March 19, 1998 to the Staff regarding Technical Specification Change #96-09 (ECCW System Upgrade). The entire SQUG report was revised and submitted to the Staff on September 28, 1998. This report supplement is provided per the same March 19, 1998 commitment letter to incorporate the ECCW system upgrades associated with Unit 3 as they affect the scope of USI A-46.

For additional background, see Section 1.4 of the submittal entitled "Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998."

1.5 REPORT ORGANIZATION

The remaining sections of this report are organized in accordance with Section II.9.4 of the GIP (Reference #1). These sections include the following:

- Section 2, "Safe Shutdown Earthquake"—The Oconee Ground Response Spectra (GRS) and In-Structure Response Spectra (IRS) are described. The bases for determining how seismic demand is determined for each equipment are provided in Section 5, and documented on the Screening Verification Data Sheet (SVDS) forms in Appendix D of this report.
- Section 3, "Project Team"—The Duke project team is discussed. Seismic Capability Engineers (SCEs) involved with equipment walkdowns are listed. Résumés for (SCEs) are included in Appendix A. The credentials of the third party audit group are also discussed.
- Section 4, "Safe Shutdown Equipment List (SSEL)"—This section contains information from the SSEL report recommended for submittal to the NRC, per Section II.9.2 of the GIP. Descriptions of the safe shutdown path selection, plant operation procedures used, and Oconee Nuclear Operations Department review of the SSEL are discussed. Lists of equipment on the Composite SSEL and Seismic Review SSEL are included in Appendices B and C of this report. The list of equipment included on the Relay Review SSEL is included in the Relay Report (Reference #3).
- Section 5, "Mechanical and Electrical Equipment Review"—Screening Verification and Walkdown results for mechanical and electrical equipment are discussed, in addition to the SVDS forms provided in Appendix D. Instances in which the intent of a caveat is met without meeting the specific wording of the caveat rule are identified. A summary of outliers and their resolution is provided.

- Section 6, "Tanks and Heat Exchanger Review"—Results of the tanks and heat exchangers review are discussed, including instances in which the intent, but not the letter, of a caveat is met. A summary of outliers and their resolution is provided.
- Section 7, "Cable Tray, Cable Trench, Conduit and HVAC Review"—Results of the raceway review, including bounding samples and outliers, are summarized.
- Section 8, "Dispositioning of Outliers"—A summary of the GIP Outliers is presented along with current resolutions for those with a Resolved status, or proposed resolutions for those with Unresolved status.
- Section 9, "Significant or Programmatic Deviations from the GIP"—A statement is made that no significant or programmatic deviations from the GIP are made in the Oconee Nuclear Station USI A-46 Implementation Program.
- Section 10, "Third-Party Audit Summary"—The Third-Party Audits are summarized, including resolution of recommendations made by the Auditors during the initial Audit. The Peer Review Team close-out letter is included as Appendix E.
- Section 11, "References"

Section 2

SAFE SHUTDOWN EARTHQUAKE

2.1 GROUND RESPONSE SPECTRA

See Section 2.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

2.2 IN-STRUCTURE RESPONSE SPECTRA

See Section 2.2 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

Section 3

PROJECT TEAM

A primary SQUG project team was established at Duke Power in 1992 to address issues relating to USI A-46. This multidiscipline team was responsible for overall project coordination, performing relay evaluations and seismic walkdowns, and coordination of contractor activities. A team of on-site mechanical and electrical systems engineers was responsible for development of the SSEL and provided guidance, as needed, to the core project team. All of the above was performed with in-house engineering staff. A contractor, EQE Inc., assisted with seismic walkdown of miscellaneous SSEL items and outlier resolution of items which were determined to be outside the scope of the GIP.

3.1 UTILITY REPRESENTATIVES

See Section 3.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

3.2 SEISMIC CAPABILITY ENGINEERS

See Section 3.2 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

3.3 THIRD-PARTY AUDITORS(S)

No additional Third-Party Audit reviews were conducted for this supplement.

Section 4

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

The Oconee Safe Shutdown Equipment List (SSEL) was prepared in accordance with Section II.3 and Appendix A of the GIP (Reference #1).

4.1 SAFE SHUTDOWN PATH SELECTION

See Section 4.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

4.1.1 Safe Shutdown Systems

See Section 4.1.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

4.1.2 Supporting Systems

See Section 4.1.2 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

4.2 OPERATIONS DEPARTMENT REVIEW OF SSEL

See Section 4.2 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

4.3 COMPOSITE SAFE SHUTDOWN EQUIPMENT LIST AND SUBSETS

A printout of the supplemental Composite SSEL associated with this report is included in Appendix B.

Table 4-1 (Supplement 1)

**List of Procedures Used for
Safe Shutdown Equipment List Review**

No changes to this table - See Table 4-1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

Section 5

MECHANICAL AND ELECTRICAL EQUIPMENT REVIEW

5.1 SUMMARY OF REVIEW

This section of the report presents information used in completing the walkdown assessment, general processes/procedures used, and the results of the walkdown for the equipment included within the scope of this supplement. Tanks and Heat Exchangers are evaluated in Section 6 of this report. Cable Tray and HVAC Review are evaluated in Section 7 of this report.

No updates are applicable, see Section 5.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.1.1 Seismic Capacity vs. Demand

No updates are applicable, see Section 5.1.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.1.1.1 Method A: Comparison of Seismic Capacity to SSE Ground Response Spectra

No updates are applicable, see Section 5.1.1.1 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.1.1.2 Method B: Comparison of Seismic Capacity to In-Structure Response Spectra

No updates are applicable, see Section 5.1.1.2 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.1.2 Equipment Class Descriptions

No updates are applicable, see Section 5.1.2 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.1.3 Equipment Anchorage

The following comments apply to the scope of equipment being addressed by this supplement.

All equipment mounted prior to the ECCW-related modifications had anchorage inspections and embedment verifications in the same manner and detail as all previously inspected equipment

within the scope of SQUG. The new equipment installed for the ECCW-related modifications used Quality Assurance installation and inspection procedures. Therefore, the SQUG walkdowns for this equipment scope included the typical SQUG anchorage inspections (cracks, gaps, etc), but did not include verification of the embedment since these anchors had already passed the current QA-related installation and inspection procedures. Our current QA documentation of anchorage installation for this set of equipment was deemed to be sufficient to demonstrate anchorage capacity and embedment.

No other updates are applicable, see Section 5.1.3 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998' for additional information.

5.1.4 Seismic Interaction

No updates are applicable, see Section 5.1.4 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.1.5 Relay walkdown

No updates are applicable, see Section 5.1.5 of the submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

5.2 INSTANCES OF INTENT BUT NOT LETTER OF CAVEAT MET

For this supplement, there are no cases where the intent of the caveat was utilized in lieu of meeting the letter of the caveat. Therefore, no updates are applicable.

5.3 SUMMARY OF OUTLIERS

A total of 5 pieces of equipment were identified as outliers out of the 42 ONS SSEL walkdown items. Section 8.1 provides a breakdown of individual outlier issues. Tables 8.1 & 8.2 provide a list of equipment outliers, identified as seismic capacity vs. demand, bounding spectrum caveat, anchorage, and seismic interaction outliers. These tables also include a short description of each equipment outlier and its proposed resolution. The dispositions of the two tank outliers are not included in Section 8. Instead, the tank outliers and resolutions are presented in Section 6.2 and Table 6.2, respectively. The results for all outliers are summarized on the SVDS forms found in Appendix D. All 5 SQUG outliers were evaluated to the existing station Licensing Basis and found acceptable.

Table 5-1 (Supplement 1)
Equipment Walkdown Category Summary
Oconee Units 1,2 & 3

Category	Number of Items Walked Down	Number of Outliers	Number of Outliers Resolved	Number of Outliers Unresolved
0 - Other	2	2	2	0
1 - Motor Control Centers	0	0	0	0
2 - Low Voltage Switchgear	1	1	1	0
3 - Medium Voltage Switchgear	0	0	0	0
4 - Transformers	6	0	0	0
5 - Horizontal Pumps	3	0	0	0
6 - Vertical Pumps	0	0	0	0
7 - Fluid Operated Valves	4	0	0	0
8A - Motor Operated Valves	0	0	0	0
8B - Solenoid Operated valves	5	0	0	0
9 - Fans	0	0	0	0
10 - Air Handelters	0	0	0	0
11 - Chillers	0	0	0	0
12 - Air Compressors	0	0	0	0
13 - Motor Generators	0	0	0	0
14 - Distribution Panels	3	0	0	0
15 - Batteries on Racks	0	0	0	0
16 - Battery Chargers and Inverters	0	0	0	0
17 - Engine - Generators	0	0	0	0
18 - Instruments on Racks	12	0	0	0
19 - Temperature Sensors	0	0	0	0
20 - Instrumentation and Control Panels and cabinets	4	0	0	0
21 - Tanks and Heat Exchangers	2	2	2	0
Total	42	5	5	0

Table 5-2 (Supplement 1)

Intent But Not Letter of Caveat Summary

The letter of the caveats was met for all equipment associated with Supplement 1. No updates are applicable.

Table 5-3 (Supplement 1)

Response Spectrum Exceedances for Building Elevations Containing SSEL Equipment

There were no Response Spectra Exceedances for this supplement.

Section 6

TANKS AND HEAT EXCHANGER REVIEW

6.1 SUMMARY OF REVIEW

The tanks and heat exchangers on the Oconee SSEL (Supplement 1) were evaluated in accordance with Section II.7 of the GIP [Reference #1]. A total of 2 individual tanks & heat exchangers were evaluated for the A-46 program. Both of these tanks & heat exchangers were classified as outliers and are addressed in section 6.2.

Table 6-1 (Supplement 1)

Tanks and Heat Exchangers Meeting the GIP

The two tanks evaluated per this submittal do not meet the GIP criteria.

6.2 SUMMARY OF OUTLIERS

A total of 2 tanks were evaluated and considered to be a part of the USI-A46 "Tanks and Heat Exchangers" category. These two items are identical and were determined to be outliers due to support configurations considered not within the scope of the GIP. These outliers have been resolved and the final dispositions are listed in Table 6.2. These tanks are supported on skirts and are considered outliers since this type of support is not addressed within the scope of the GIP. Engineering analysis was performed using an approach similar to that described in Section 7 of the GIP.

Table 6-2 (Supplement 1)
Tank and Heat Exchanger Outlier Description and Resolution Summary

EQUIPMENT ID NAME	BLDG.	FLOOR ELEV.	OUTLIER TYPE	OUTLIER RESOLUTION
3ESVTK0001 ESV Receiver Tank	ESV	797'+6"	VERTICAL TANK SUPPORTED ON SKIRT	CALCULATION VERIFIED SEISMIC ADEQUACY
3ESVTK0002 ESV Receiver Tank	ESV	797'+6"	VERTICAL TANK SUPPORTED ON SKIRT	CALCULATION VERIFIED SEISMIC ADEQUACY

CABLE TRAY, CABLE TRENCH, CONDUIT, AND HVAC REVIEW

7.1 CABLE AND CONDUIT RACEWAY REVIEW

7.1.1 Summary of Raceway Review

For this supplement, there were no additional raceways requiring review. Therefore, no updates are applicable.

7.1.1.1 Summary of Installations at Oconee

For this supplement, there were no additional raceways requiring review. Therefore, no updates are applicable.

7.1.1.1.1 Plant Tray System

For this supplement, there were no additional raceways requiring review. Therefore, no updates are applicable.

7.1.1.1.2 Reactor Buildings

For this supplement, there were no additional raceways requiring review. Therefore, no updates are applicable.

7.1.1.2 Evaluation Methodology

For this supplement, there were no additional raceways requiring review. Therefore, no updates are applicable.

7.1.2 Evaluation of Bounding Samples

For this supplement, there were no additional Bounding samples requiring review. Therefore, no updates are applicable.

7.1.2.1 Plant Tray System

For this supplement, there were no additional Bounding samples requiring review. Therefore, no updates are applicable.

7.1.2.2 Reactor Buildings

For this supplement, there were no additional Bounding samples requiring review. Therefore, no updates are applicable.

7.1.3 Summary of Outliers

For this supplement, there were no additional outliers identified. Therefore, no updates are applicable.

7.1.3.1 Plant Tray System Analytical Review Outliers:

For this supplement, there were no additional outliers identified. Therefore, no updates are applicable.

7.1.3.2 Reactor Building Analytical Review Outliers:

For this supplement, there were no additional outliers identified. Therefore, no updates are applicable.

7.1.3.3 Plant Tray System and Reactor Building Walkdown Outliers:

For this supplement, there were no additional outliers identified. Therefore, no updates are applicable.

7.1.4 Conclusion for Reactor Building and Plant Tray System:

For this supplement, there were no new conclusions for cable tray and raceway systems.

Therefore, no updates are applicable for this section.

Table 7-1 (Supplement 1)

Cable Tray Analytical Review Outlier Description and Proposed Resolution Summary

No additional cable tray were identified as part of this supplement.

Table 7-2 (Supplement 1)

Cable Tray Walkdown Outlier Description and Proposed Resolution Summary

No additional cable tray were identified as part of this supplement.

7.2 CABLE TRENCH REVIEW

For this supplement, there were no additional Cable Trench reviews identified. Therefore, no updates are applicable.

7.2.1 Summary of Cable Trench Review

For this supplement, there were no additional Cable Trench reviews identified. Therefore, no updates are applicable.

7.2.2 Summary of Cable Trench Installations

For this supplement, there were no additional Cable Trench reviews identified. Therefore, no updates are applicable.

7.2.3 Methodology

For this supplement, there were no additional Cable Trench reviews identified. Therefore, no updates are applicable.

7.2.4 Conclusion

For this supplement, there were no additional Cable Trench reviews identified. Therefore, no updates are applicable.

7.3 CONTROL ROOM VENTILATION SYSTEM (CRVS) REVIEW

For this supplement, there were no additional Control Room Ventilation systems identified requiring review. Therefore, no updates are applicable.

7.3.1 Summary of CRVS Review

For this supplement, there were no additional Control Room Ventilation systems identified requiring review. Therefore, no updates are applicable

7.3.1.1 Summary of Installations at Oconee

For this supplement, there were no additional Control Room Ventilation systems identified requiring review. Therefore, no updates are applicable

7.3.1.2 Evaluation Methodology

For this supplement, there were no additional Control Room Ventilation systems identified requiring review. Therefore, no updates are applicable

7.3.2 Evaluation of Bounding Samples

For this supplement, there were no additional Control Room Ventilation systems identified requiring review. Therefore, no updates are applicable

7.3.3 Summary of Outliers and Conclusions

For this supplement, there were no additional Control Room Ventilation systems identified requiring review. Therefore, no updates are applicable

Table 7-3 (Supplement 1)

HVAC Duct System Bounding Analysis Candidates and Evaluation Results

No additional HVAC Duct Systems were identified as part of this supplement.

Table 7-4 (Supplement 1)

Duct and Duct Support Outlier Description and Proposed Resolution Summary

No additional HVAC Duct Systems were identified as part of this supplement.

Section 8

DISPOSITIONING OF OUTLIERS

8.1 INTRODUCTION/SUMMARY

Of the 42 items evaluated for this Supplement, 5 items were outliers. The dispositions of the two tank outliers discussed in section 6.2 are not addressed in this section. The remaining 3 Outliers can be collectively grouped for review as shown below.

Outlier Issues for equipment Classes 0 - 20

	<u>Total Outlier Issues</u>	<u>Resolved</u>	<u>Unresolved</u>
Outliers due to Class 0 Description	2	2	0
Outliers due to:			
Capacity vs. Demand	0	0	0
Bounding Spectrum Caveats	0	0	0
Anchorage	1	1	0
Seismic Interaction	0	0	0
TOTAL	3	3	0

The Outliers and their current associated status will be presented in two distinct groupings, Resolved Outliers and Unresolved Outliers:

RESOLVED OUTLIERS

All the Resolved Outliers are described in Table 8-1.

UNRESOLVED OUTLIERS

All the Unresolved Outliers are described in Table 8-2.

All Outliers were assigned a Outlier Reference Number. This reference number can be found in the Composite SSEL which is indexed by equipment ID and in the Outlier tables which are grouped by Equipment Class.

8.2 OUTLIER TABLES

Table 8-1 Equipment Outlier Description and Resolution

Table 8-2 Equipment Outlier Description and Proposed Resolution

Tables 8-1 & 8-2 address the Outliers as discussed above. Both tables are constructed the same. Like equipment with similar outliers are grouped together. The Outliers are grouped by Equipment Class. Then the Outliers are listed in a progressive equipment ID order similar to the SSEL Composite Lists.

A description of issues associated with each Outlier and its proposed resolution, where it applies, is contained in the columns "Resolution" and "Proposed Resolution", respectively. Equipment was considered an Outlier if it did not meet one of the SEWS sections or was considered to be equipment Class 0 (Other). An asterisk (*) in the column of any these five screening criteria indicates the cause category for the Outlier. It is important to remember that equipment can be an Outlier for more than one issue and this table addresses every issue as described on the corresponding SEWs form. This multiple issue also applies to Class 0 equipment if another GIP issues applies in addition to the equipment being outside the scope of the GIP's experience database. (e.g. a Class 0 item having seismic interactions concerns).

8.3 OUTLIER RESOLUTION ACTIONS

Since all Outliers associated with this Supplement have been resolved, no additional information is needed in this section.

TABLE 8-1(Supplement 1)

Equipment Outlier Description and Resolution

Oconee Units 1,2 and 3

Equipment Class: 00 - Generic Input Form

Name: ESV FLOAT VALVE

Equipment ID's: 3ESVVA0001

Bldg: YD Floor Elev.: 796'

SVDS
No.:

Group 65

Outlier Ref. 193
No.:

Resolution:

Resolved per seismic test report .

Capacity:

BS Caveats:

Anchorage:

Interaction:

Category 0:

*

Name: ESV FLOAT VALVE

Equipment ID's: 3ESVVA0002

Bldg: YD Floor Elev.: 796'

SVDS
No.:

Group 65

Outlier Ref. 193
No.:

Resolution:

Resolved per seismic test report .

Capacity:

BS Caveats:

Anchorage:

Interaction:

Category 0:

*

Equipment Class: 02 - Low Voltage Switchgear

Name: LOAD CENTER 1X03

Equipment ID's: 1X03

Bldg: TB Floor Elev.: 796'+6"

SVDS
No.:

Group 65

Outlier Ref. 179
No.:

Resolution:

Embedded studs are A108 instead of A307. Stud capacity verified per calculation.

Capacity:

BS Caveats:

Anchorage:

Interaction:

Category 0:

*

Table 8-2 (Supplement 1)
Equipment Outlier Description and Proposed Resolution
Oconee Units 1,2, and 3

There were no unresolved outliers associated with Supplement 1. No updates are applicable.

Section 9

SIGNIFICANT OR PROGRAMMATIC DEVIATIONS FROM THE GIP

No significant or programmatic deviations from the GIP have been made in the Oconee Nuclear Station A-46 Implementation Program for this supplement.

Section 10

THIRD-PARTY AUDIT SUMMARY

No additional Third-Party Audit reviews were conducted for this supplement.

Section 11

REFERENCES

No additional references added per this supplement. See Section 11 in submittal entitled 'Oconee Nuclear Station, USI A-46 Seismic Evaluation Report, September 1998.'

Appendix A (Supplement 1)

No additional résumés are needed for this supplement.

Appendix B (Supplement 1)

COMPOSITE SAFE SHUTDOWN EQUIPMENT LIST (SSEL) OCONEE UNITS 1,2 & 3

The following Composite Safe Shutdown List (SSEL) represents all components identified as part of the SSEL exclusive of contact devices for this Supplement. See Section 5 of the Relay Evaluation Report for these items. All components requiring seismic evaluation are identified within Appendix B by either a "S" or "S,R" under "Eval. Type". Equipment, which was evaluated by "Rule of the Box" with another component, is designated with a "RB" in the Signature Group field. The seismic evaluation for these items can be found with the equipment listed in the "Walkdown Host" field. The results of the seismic evaluations for all equipment comprising the Seismic Review SSEL can be found in the SVDS forms located in Appendix D. These items are grouped within Appendix D by their SVDS signature group. All outliers are addressed in Table 8.1 and 8.2. Outliers can be identified within the Composite SSEL by their Outlier Reference Number. Outliers in Tables 8.1 & 8.2 grouped by their GIP equipment class.

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
65	N/A	0HPSPG0012 U0 High Pressure Service Water	JOCKEY PUMP DISCH.	N/A	OFD-124C-1.1(F10)	TB	775'+0"	In Use	NO	N/A	N/A	S
65	N/A	0HPSPG0013 U0 High Pressure Service Water	HPSW PUMP B DISCH.	N/A	OFD-124C-1.1(C9)	TB	775'+0"	In Use	NO	N/A	N/A	S
65	N/A	0HPSPG0016 U0 High Pressure Service Water	HPSW PUMP A DISCH.	N/A	OFD-124C-1.1(I10)	TB	775'+0"	In Use	NO	N/A	N/A	S
65	N/A	0HPSPG0224 U0 High Pressure Service Water	HPSW PUMP A STRAINER	N/A	OFD-124C-1.1(I4)	TB	775'+0"	In Use	NO	N/A	N/A	S
65	N/A	0HPSPG0225 U0 High Pressure Service Water	HPSW PUMP B STRAINER	N/A	OFD-124C-1.1(C4)	TB	775'+0"	In Use	NO	N/A	N/A	S
65	N/A	0HPSPG0226 U0 High Pressure Service Water	JOCKEY PUMP STRAINER	N/A	OFD-124C-1.1(F4)	TB	775'+0"	In Use	NO	N/A	N/A	S
65	179	1X03 U1 600V PWR (LOAD CENTERS)	600V LC 1X03	N/A	O-703-B	TB	796'+0"	In Service	YES	O-702	1TE-13	S
N/A	N/A	2ESVPY0005 U2 Seal Water	ESV VACUUM TANK 2C	2ESVLC	O-1740-E-5	ESV	797'+6"	In Use	YES	O-1704-A	2SKP-02	R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
65	N/A	2SKMT U2 240/120V PWR (PPB)	600/240/120V 2SKM	N/A	O-1704-A	ESV	797'+6"	In Service	YES	O-1703-G	2XS1-F02B	S
65	N/A	2SKNT U2 240/120V PWR (PPB)	600/240/120V 2SKN POWER	N/A	O-1704-A	ESV	797'+6"	In Service	YES	O-1703-G	2XS1-F03BT	S
65	N/A	2SKPT U2 240/120V PWR (PPB)	600/240/120V 2SKN POWER	N/A	O-1704-A	ESV	797'+6"	In Service	YES	O-1703-G	2XS3-02BB	S
65	N/A	2SSWFT1013 U2 Seal Water	ESV PUMP 2C SEAL	N/A	OEE-428-02-14	ESV	797'+6"	In Use	YES	O-1704-A	2SKP-02	S,R
N/A	N/A	2SSWT1013 U2 Seal Water	ESV PUMP 2C SEAL	2ESVLCP	O-1740-E	ESV	797'+6"	In Use	YES	O-1704-A	2SKP-02	R
N/A	N/A	2SSWP1013 U2 Seal Water	ESV PUMP 2C SEAL	2ESVLCP	O-1740-E-05	ESV	797'+6"	In Use	YES	O-1704-A	2SKP-02	R
N/A	N/A	2SSWSR1013 U2 Seal Water	ESV PUMP 2C SEAL	2ESVLCP	O-1740-E	ESV	797'+6"	In Use	YES	O-1704-A	2SKP-02	R
65	N/A	3ESV1 U3 Emergency Siphon Vacuum	ESV PUMP CONTROLS	N/A	NO ELEMENTARY	ESV	797'+6"	In Service	N/A	N/A	N/A	S,R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2 by their Equipment Class & Outlier Ref. No.

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
65	N/A	3ESV2 U3 Emergency Siphon Vacuum	ESV PUMP CONTROLS	N/A	NO ELEMENTARY	ESV	797'+6"	In Service	N/A	N/A	N/A	S,R
65	N/A	3ESV3 U3 Emergency Siphon Vacuum	ESV PUMP CONTROLS	N/A	NO ELEMENTARY	ESV	797'+6"	In Service	N/A	N/A	N/A	S,R
N/A	N/A	3ESVIT0001 U3 Emergency Siphon Vacuum	ESV VACUUM TANK 3A	3ESVLCP	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-09	R
N/A	N/A	3ESVIT0002 U3 Emergency Siphon Vacuum	ESV VACUUM TANK 3B	3ESVLCP	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-09	R
N/A	N/A	3ESVIT0003 U3 Emergency Siphon Vacuum	FLOAT VALVE 3ESV-1	3ESVLCP	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-01	R
N/A	N/A	3ESVIT0004 U3 Emergency Siphon Vacuum	FLOAT VALVE 3ESV-2	3ESVLCP	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-01	R
65	N/A	3ESVLCP U3 Emergency Siphon Vacuum	UNIT 3 ESV LOCAL	N/A	NO ELEMENTARY	ESV	797'+6"	In Service	N/A	N/A	N/A	S,R
RB	N/A	3ESVP0001 U3 Emergency Siphon Vacuum	ESV TANK PRESS.	3AB3A	O-2713-02-1	AB	822'+0"	In Use	YES	O-2704-C	3SKM-09	S,R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2 by their Equipment Class & Outlier Ref. No.

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
RB	N/A	3ESVP0002 U3 Emergency Siphon Vacuum	ESV TANK PRESS.	3AB3A	O-2713-02-1	AB	822'+0"	In Use	YES	O-2704-C	3SKN-09	S,R
65	N/A	3ESVPT0001 U3 Emergency Siphon Vacuum	ESV TANK PRESSURE	N/A	OEE-428-03-07	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-09	S,R
65	N/A	3ESVPT0002 U3 Emergency Siphon Vacuum	ESV TANK PRESSURE	N/A	OEE-428-03-08	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-09	S,R
65	N/A	3ESVPU0001 U3 Emergency Siphon Vacuum	ESV PUMP 3A	N/A	OM-212-0014-0001	ESV	797'+6"	On	YES	O-2703-G	3XS1-F05B	S,R
65	N/A	3ESVPU0002 U3 Emergency Siphon Vacuum	ESV PUMP 3B	N/A	OM-212-0014-0001	ESV	797'+6"	On	YES	O-2703-G	3XS2-F02B	S,R
65	N/A	3ESVPU0003 U3 Emergency Siphon Vacuum	ESV PUMP 3C	N/A	OM-212-0014-0001	ESV	797'+6"	On	YES	O-2703-G	3XS3-03E	S,R
N/A	N/A	3ESVPY0003 U3 Emergency Siphon Vacuum	ESV VACUUM TANK 3A	3ESVLCP	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-09	R
N/A	N/A	3ESVPY0004 U3 Emergency Siphon Vacuum	ESV VACUUM TANK 3B	3ESVLCP	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-09	R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSF" indicates that the equipment is part of the NSSF system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2 by their Equipment Class & Outlier Ref. No.

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
N/A	N/A	3ESVPY0005 U3 Seal Water	ESV VACUUM TANK 3C	3ESVLCF	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKP-02	R
65	192	3ESVTK0001 U3 Emergency Siphon Vacuum	ESV RECEIVER TANK 3A	N/A	OFD-130A-3.1(I8)	ESV	797'+6"	In Use	NO	N/A	N/A	S
65	192	3ESVTK0002 U3 Emergency Siphon Vacuum	ESV RECEIVER TANK 3B	N/A	OFD-130A-3.1(E8)	ESV	797'+6"	In Use	NO	N/A	N/A	S
65	193	3ESVVA0001 U3 Emergency Siphon Vacuum	ESV FLOAT VALVE	N/A	OFD-130A-3.1(I2)	YD	796'+0"	CL/OP	NO	N/A	N/A	S
65	193	3ESVVA0002 U3 Emergency Siphon Vacuum	ESV FLOAT VALVE	N/A	OFD-130A-3.1(E2)	YD	796'+0"	CL/OP	NO	N/A	N/A	S
65	N/A	3ESVVA0028 U3 Emergency Siphon Vacuum	ESV TANK MIN. FLOW	N/A	OFD-130A-3.1	ESV	797'+6"	CL/OP	YES	O-2704-C	3SKN-11	S,R
65	N/A	3ESVVA0029 U3 Emergency Siphon Vacuum	ESV TANK MIN. FLOW	N/A	OFD-130A-3.1	ESV	797'+6"	CL/OP	YES	O-2704-C	3SKM-11	S,R
65	N/A	3SKM U3 240/120V AC PWR	240/120V PPB 3SKM	N/A	O-2704-C	ESV	797'+6"	In Service	YES	O-2704-C	3XS1-F03B	S,R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
65	N/A	3SKMT U3 240/120V AC PWR	600/240/120V 3SKM	N/A	O-2704-C	ESV	797'+6"	In Service	YES	O-2703-G	3XS1-F03B	S
65	N/A	3SKN U3 240/120V AC PWR	240/120V PPB 3SKN	N/A	O-2704-C	ESV	797'+6"	In Service	YES	O-2704-C	3XS2-F03BB	S,R
65	N/A	3SKNT U3 240/120V AC PWR	600/240/120V 3SKN POWER	N/A	O-2704-C	ESV	797'+6"	In Service	YES	O-2703-G	3XS2-F03BB	S
65	N/A	3SKP U3 240/120V AC PWR	240/120V PPB 3SKP	N/A	O-2704-C	ESV	797'+6"	In Service	YES	O-2704-C	3XS3-03D	S,R
65	N/A	3SKPT U3 240/120V AC PWR	600/240/120V 3SKN POWER	N/A	O-2704-C	ESV	797'+6"	In Service	YES	O-2703-G	3XS3-F03D	S
65	N/A	3SSWFT1011 U3 Seal Water	ESV PUMP 3A SEAL	N/A	OEE-428-03-12	ESV	797'+6"	In Service	YES	O-2704-C	3SKM-09	S,R
65	N/A	3SSWFT1012 U3 Seal Water	ESV PUMP 3B SEAL	N/A	OEE-428-03-13	ESV	797'+6"	In Service	YES	O-2704-C	3SKN-09	S,R
65	N/A	3SSWFT1013 U3 Seal Water	ESV PUMP 3C SEAL	N/A	OEE-428-03-14	ESV	797'+6"	In Service	YES	O-2704-C	3SKP-02	S,R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2 by their Equipment Class & Outlier Ref. No.

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
N/A	N/A	3SSWIT1011 U3 Seal Water	ESV PUMP 3A SEAL	3ESVLC	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-09	R
N/A	N/A	3SSWIT1012 U3 Seal Water	ESV PUMP 3B SEAL	3ESVLC	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-09	R
N/A	N/A	3SSWIT1013 U3 Seal Water	ESV PUMP 3C SEAL	3ESVLC	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKP-02	R
N/A	N/A	3SSWP1011 U3 Seal Water	ESV PUMP 3A SEAL	3ESVLC	O-2740-E-05	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-09	R
N/A	N/A	3SSWP1012 U3 Seal Water	ESV PUMP 3B SEAL	3ESVLC	O-2740-E-05	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-09	R
N/A	N/A	3SSWP1013 U3 Seal Water	ESV PUMP 3C SEAL	3ESVLC	O-2740-E-05	ESV	797'+6"	In Use	YES	O-2704-C	3SKP-02	R
N/A	N/A	3SSWSR1011 U3 Seal Water	ESV PUMP 3A SEAL	3ESVLC	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKM-09	R
N/A	N/A	3SSWSR1012 U3 Seal Water	ESV PUMP 3B SEAL	3ESVLC	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKN-09	R

Notes:

- * Evaluation type "NONE" indicates that equipment is passive. No seismic or relay evaluation required.
- * Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.
- * Evaluation type "S" indicates that a seismic evaluation was performed.
- * Evaluation type "R" indicates that a relay evaluation was performed.
- * Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

- * Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.
- * Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.
- * The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.
- * All equipment outliers can be located in Tables 8.1 & 8.2

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
N/A	N/A	3SSWSR1013 U3 Seal Water	ESV PUMP 3C SEAL	3ESVLCF	O-2740-E	ESV	797'+6"	In Use	YES	O-2704-C	3SKP-02	R
65	N/A	3SSWVA0109 U3 Seal Water	CCWP SEAL WATER REG.	N/A	OFD-129A-3.2(H2)	YD	796'+0"	Thrtld	NO	N/A	N/A	S
65	N/A	3SSWVA0119 U3 Seal Water	CCWP SEAL WATER REG.	N/A	OFD-129A-3.2(H5)	YD	796'+0"	Thrtld	NO	N/A	N/A	S
65	N/A	3SSWVA0129 U3 Seal Water	CCWP SEAL WATER REG.	N/A	OFD-129A-3.2(H9)	YD	796'+0"	Thrtld	NO	N/A	N/A	S
65	N/A	3SSWVA0139 U3 Seal Water	CCWP SEAL WATER REG.	N/A	OFD-129A-3.2(H12)	YD	796'+0"	Thrtld	NO	N/A	N/A	S
65	N/A	3SSWVA0155 U3 Seal Water	ESV PUMP SEAL SUPPLY	N/A	OFD-129A-3.1	ESV	797'+6"	Open	YES	O-2704-C	3SKM-12	S,R
65	N/A	3SSWVA0156 U3 Seal Water	ESV PUMP SEAL SUPPLY	N/A	OFD-129A-3.1	ESV	797'+6"	Open	YES	O-2704-C	3SKN-12	S,R
65	N/A	3SSWVA0157 U3 Seal Water	ESV PUMP SEAL SUPPLY	N/A	OFD-129A-3.1	ESV	797'+6"	Open	YES	O-2704-C	3SKP-01	S,R

Notes: * Evaluation type "NONE" indicates that equipment is passive.
No seismic or relay evaluation required.

* Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.

* Evaluation type "S" indicates that a seismic evaluation was performed.

* Evaluation type "R" indicates that a relay evaluation was performed.

* Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

* Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.

* Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.

* The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.

* All equipment outliers can be located in Tables 8.1 & 8.2 by their Equipment Class & Outlier Ref. No.

Appendix B (Supplement 1)

Composite Safe Shutdown Equipment List (SSEL)

Oconee Units 1,2 & 3

Signature Group	Outlier Ref. No.	Equipment ID Sytem	Name	Walkdown Host	Ref. Dwg/Zone	Bldg.	Floor Elev.	Norm. State Des. State	Power Req'd	Supp Sys. Dwg No/Rev.	Power Source	Eval. Type
N/A	N/A	Heat Trace for 3ESVVA0001 U3 Emergency Siphon Vacuum	HEAT TRACE FOR	N/A	O-2768-1	YD	796'+0"	On	YES	O-2704-C	3SKM-01	S*
N/A	N/A	Heat Trace for 3ESVVA0002 U3 Emergency Siphon Vacuum	HEAT TRACE FOR	N/A	O-2768-1	YD	796'+0"	On	YES	O-2704-C	3SKN-01	S*

Notes: * Evaluation type "NONE" indicates that equipment is passive.
No seismic or relay evaluation required.

* Evaluation type "S*" or "S*,R" indicates that equipment is a rugged, passive, in-line device. No seismic evaluation is required.

* Evaluation type "S" indicates that a seismic evaluation was performed.

* Evaluation type "R" indicates that a relay evaluation was performed.

* Evaluation type "S,R" indicates that both a seismic and relay evaluation was performed.

* Signature group "RB" indicates that the equipment is a "Rule of the Box" item. The seismic evaluation for these items is included with the equipment designated in the "Walkdown Host" field.

* Evaluation type "NSSS" indicates that the equipment is part of the NSSS system and does not require a seismic evaluation.

* The results of the seismic evaluation for all equipment designated as "S" or "S,R" can be located in Appendix D (SVDS) by signature group.

* All equipment outliers can be located in Tables 8.1 & 8.2 by their Equipment Class & Outlier Ref. No.

Appendix C (Supplement 1)

SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL) OCONEE UNITS 1,2 & 3

The Seismic Review SSEL for this supplement is contained within the Appendix B Composite SSEL. All components comprising the Seismic Review SSEL are identified within Appendix B by either a "S" or "S,R" under "Eval. Type". Equipment which was evaluated by "Rule of the Box" with another component is designated with a "RB" in the Signature Group field. The seismic evaluation for these items can be found with the equipment listed in the "Walkdown Host" field. The results of the seismic evaluations for all equipment comprising the Seismic Review SSEL can be found in the SVDS forms located in Appendix D. These items are grouped within Appendix D by their SVDS signature group. All outliers are addressed in Table 8.1 and 8.2. Outliers can be identified within the Composite SSEL by their Outlier Reference Number. Outliers in Tables 8.1 & 8.2 are grouped by their GIP equipment class.

Appendix D (Supplement 1)

SCREENING VERIFICATION DATA SHEET (SVDS) GIP CATEGORY 0-21

The following SVDS forms are grouped by the signatures of SRT's associated with the walkdowns for each individual item. A signature page follows each SVDS group. SVDS forms were generated for the entire Oconee A-46 project. The SVDS forms contained in this Appendix address Oconee Units 1,2 & 3 Supplement 1 items only.

Note Details:

The numbers in the "Notes" column represent the following comments.

1. Equipment was found to meet the intent of at least one caveat. See Table 5.4 of the A-46 report.
2. Equipment is on the SSEL for pressure boundary only. Capacity vs. Demand determination does not apply.
3. Anchorage adequacy evaluated per a "Tug Test".
4. Tanks are supported on legs. Configuration is outside the GIP.
5. All Category "0" equipment is considered an Outlier. See Tables 8.1 & 8.2 for Outlier Resolution or Proposed Resolution.
6. Equipment was inaccessible for seismic walkdown. Equipment will be evaluated at earliest opportunity.
7. Tanks are seismically adequate but do not meet the configuration requirements of the GIP.

Appendix D (Supplement 1)

Date: 3/30/99

SCREENING VERIFICATION DATA SHEET (SVDS), GIP CATEGORIES 0 - 21

Page No. 1

SVDS Group	Eq. Cl.	Equip. ID No.	System/Equipment Description	Bldg.	Floor Elev.	Room or Row/Col	Base Elev.	<40'?	Cap. Spec.	Dem. Spec.	Cap.> Dem.	Caveats OK?	Anchor OK?	Interact OK?	Equip. OK?	Notes
65	18	0HPSPG0012	Jockey Pump Disch. Press. Gage	TB	775'		775'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	2
65	18	0HPSPG0013	HPSW Pump B Disch. Press. Gage	TB	775'		775'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	2
65	18	0HPSPG0016	HPSW Pump A Disch. Press. Gage	TB	775'		775'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	2
65	18	0HPSPG0224	HPSW Pump A Strainer dP Gage	TB	775'		775'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	2
65	18	0HPSPG0225	HPSW Pump B Strainer dP Gage	TB	775'		775'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	2
65	18	0HPSPG0226	Jockey Pump Strainer dP Gage	TB	775'		775'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	2
65	02	1X03	600V LC 1X03	TB	796'+6"		796'+6"	Yes	BS	GRS	Yes	Yes	No	Yes	No	
65	04	2SKMT	600/240/120V 2SKM POWER TRANSFORMER	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	04	2SKNT	600/240/120V 2SKN POWER TRANSFORMER	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	04	2SKPT	600/240/120V 2SKN POWER TRANSFORMER	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	18	2SSWFT1013	ESV PUMP 2C SEAL WATER FLOW TRANSMITTER	ESV	796'+6"		796'+6"	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	20	3ESV1	Essential Siphon Vacuum Panel No.1	AB	796'+6"		796'+6"	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	20	3ESV2	Essential Siphon Vacuum Panel No.2	AB	796'+6"		796'+6"	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	20	3ESV3	Essential Siphon Vacuum Panel No.3	AB	796'+6"		796'+6"	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	20	3ESVLCPI	Essential Siphon Vacuum Local Control Panel Cabinet No.1	ESV	796'+6"		796'+6"	Yes	BS	RRS	Yes	Yes	Yes	Yes	Yes	

Appendix D (Supplement 1)

Date: 3/30/99

SCREENING VERIFICATION DATA SHEET (SVDS), GIP CATEGORIES 0 - 21

Page No. 2

SVDS Group	Eq. Cl.	Equip. ID No.	System/Equipment Description	Bldg.	Floor Elev.	Room or Row/Col	Base Elev.	<40'?	Cap. Spec.	Dem. Spec.	Cap.> Dem.	Caveats OK?	Anchor OK?	Interact OK?	Equip. OK?	Notes
65	18	JESVPT0001	ESV TANK PRESSURE TRANSMITTER	ESV	797'+6"		797'+6"	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	18	JESVPT0002	ESV TANK PRESSURE TRANSMITTER	ESV	797'+6"		797'+6"	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	05	JESVPU0001	Essential Siphon Vacuum Pump No.1	ESV	796'+6"		796'+6"	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes	
65	05	JESVPU0002	Essential Siphon Vacuum Pump No.2	ESV	796'+6"		796'+6"	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes	
65	05	JESVPU0003	Essential Siphon Vacuum Pump No.3	ESV	796'+6"		796'+6"	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes	
65	21	JESVTK0001	ESV RECEIVER TANK 3A	ESV	797'+6"		796'+6"	N/A	N/A	N/A	N/A	N/A	Yes	N/A	No	7
65	21	JESVTK0002	ESV RECEIVER TANK 3B	ESV	797'+6"		796'+6"	N/A	N/A	N/A	N/A	N/A	Yes	N/A	No	7
65	00	JESVVA0001	ESV FLOAT VALVE	YD	796'		796'	N/A	N/A	N/A	Yes	N/A	N/A	Yes	No	5
65	00	JESVVA0002	ESV FLOAT VALVE	YD	796'		796'	N/A	N/A	N/A	Yes	N/A	N/A	Yes	No	5
65	8B	JESVVA0028	ESV TANK MIN. FLOW VALVE	ESV	797'+6"		797'+6"	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	8B	JESVVA0029	ESV TANK MIN. FLOW VALVE	ESV	797'+6"		797'+6"	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	14	JSKM	240/120V PPB JSKM	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	04	JSKMT	600/240/120V JSKM POWER TRANSFORMER	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	14	JSKN	240/120V PPB JSKN	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	04	JSKNT	600/240/120V JSKN POWER TRANSFORMER	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	

Appendix D (Supplement 1)

Date: 3/30/99

SCREENING VERIFICATION DATA SHEET (SVDS), GIP CATEGORIES 0 - 21

Page No. 3

SVDS Group	Eq. Cl.	Equip. ID No.	System/Equipment Description	Bldg.	Floor Elev.	Room or Row/Col	Base Elev.	<40'?	Cap. Spec.	Dem. Spec.	Cap.> Dem.	Caveats OK?	Anchor OK?	Interact OK?	Equip. OK?	Notes
65	14	3SKP	240/120V PPB 3SKP	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	04	3SKPT	600/240/120V 3SKN POWER TRANSFORMER	ESV	797'		797'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	18	3SSWFT1011	ESV PUMP 3A SEAL WATER FLOW TRANSMITTER	ESV	796'		796'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	18	3SSWFT1012	ESV PUMP 3B SEAL WATER FLOW TRANSMITTER	ESV	796'		796'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	18	3SSWFT1013	ESV PUMP 3C SEAL WATER FLOW TRANSMITTER	ESV	796'		796'	Yes	ABS	RRS	Yes	Yes	Yes	Yes	Yes	
65	07	3SSWVA0109	CCWP SEAL WATER REG. VALVE	YD	796'		796'	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	07	3SSWVA0119	CCWP SEAL WATER REG. VALVE	YD	796'		796'	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	07	3SSWVA0129	CCWP SEAL WATER REG. VALVE	YD	796'		796'	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	07	3SSWVA0139	CCWP SEAL WATER REG. VALVE	YD	796'		796'	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	8B	3SSWVA0155	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"		797'+6"	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	8B	3SSWVA0156	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"		797'+6"	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	
65	8B	3SSWVA0157	ESV PUMP SEAL SUPPLY VALVE	ESV	797'+6"		797'+6"	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes	

Appendix D (Supplement 1)

Date: 3/30/99

SCREENING VERIFICATION DATA SHEET (SVDS), GIP CATEGORIES 0 - 21

Page No.

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All signatures on this page apply to items identified as SVDS Signature Group

65 and contained on printout dated 3/30/99

Certification:

All the information contained on this Screening Verification Data Sheet (SVDS) is, to the best of our knowledge and belief, correct and accurate. "All information" includes each entry and conclusion (whether verified to be seismically adequate or not).

Approved: Signature of all Seismic Capability Engineers on the Seismic Review Team (SRT) are required; there should be at least two on the SRT. All signatures should agree with all of the entries and conclusions. One signature should be a licensed professional engineer.

R P CHILDS

Print or Type Name

R. P. Childs P.E. 4/13/99
Signature Date

L B ELROD

Print or Type Name

L B Elrod P.E. 4/13/99
Signature Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Certification:

The information provided to the Seismic Capability Engineers regarding system and operations of the equipment contained on this SVDS is, to the best of our knowledge and belief, correct and accurate

Approved: One signature of System or Operations Engineer is required if the Seismic Capability Engineers deem it necessary.

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Print or Type Name

Signature

Date

Appendix E (Supplement 1)

No additional Third-Party reviews were conducted for this supplement.