IN RESPONSE TO:

NRC GENERIC LETTER 87-02/USI A-46

VERIFICATION OF SEISMIC ADEQUACY OF MECHANICAL AND ELECTRICAL EQUIPMENT IN OPERATING REACTORS

PREPARED FOR:

NORTHEAST NUCLEAR ENERGY COMPANY P.O. BOX 128 WATERFORD, CT 06385-0128

REPORT NUMBER: JOB NUMBER: REVISION: DATE: MP2-RELAY.RPT 0024-00099 0 DECEMBER 14, 1995

9601290087 960122 PDR ADOCK 05000336 P PDR

SECTION	TITLE PAGE
1.0 2.0 3.0 4.0 5.0	INTRODUCTION SCOPE/METHOD ASSUMPTIONS/LIMITATIONS RESULTS REFERENCES
ATTACHMENT	TITLE
ATTACHMENT A *	MILLSTONE UNIT 2- RELAY REVIEW SAFE SHUTDOWN EQUIPMENT COMPONENT LIST (22 Pages)
ATTACHMENT B	MILLSTONE UNIT 2- USI A-46 RELAY SCREENING AND EVALUATION TABULATION "ASSOCIATED RELAYS" (274 Pages)
ATTACHMENT C *	MILLSTONE UNIT 2- USI A-46 RELAY SCREENING AND EVALUATION TABULATION "ESSENTIAL RELAYS" (100 Pages)
ATTACHMENT D	MILLSTONE UNIT 2- USI A-46 RELAY SCREENING AND EVALUATION TABULATION "LOW RUGGEDNESS RELAYS" (2 Pages)
ATTACHMENT E	RESUME OF LEAD RELAY REVIEWER (7 Pages)
ATTACHMENT F	MILLSTONE UNIT 2 SUMMARY OF SEISMIC CAPACITY EVALUATION FOR ESSENTIAL RELAYS (15 Pages)
ATTACHMENT G	MILLSTONE UNIT 2 LIST AND DESCRIPTION OF UNRESOLVED RELAY OUTLIERS (12 Pages)
ATTACHMENT H *	MILLSTONE UNIT 2 ESSENTIAL RELAYS DETAILED SEISMIC CAPACITY VS DEMAND EVALUATIONS (112 Pages)
(*)	DESIGNATES ATTACHMENTS NOT INCLUDED IN THE NRC SUBMITTAL

1.0 INTRODUCTION

Seismic qualification of equipment in operating nuclear plants was identified as a potential safety concern in USNRC Unresolved Safety Issue (USI) A-46, "Seismic Qualification of Equipment in Operating Nuclear Power Plants". The specific NRC plan for demonstrating the seismic adequacy of equipment in operating nuclear plants is presented in NRC Generic Letter 87-02.

As part of the resolution of GL 87-02, it is necessary to perform a relay seismic functionality review. The purpose of this review is to determine if the plant's safe shutdown systems could be adversely affected by relay malfunction in the event of a Safe Shutdown Earthquake (SSE).

Basic technical guidance for this effort was obtained form the Generic Implementation Procedure (GIP) (ref. 5.1) and from the Electric Power Research Institute (EPRI) report EPRI NP-7148-SL (ref. 5.2). The terminology used in this report is the terminology used in the GIP. The methodology used to perform the relay evaluation is specified in VECTRA Project Instructions (refs. 5.3 and 5.4).

2.0 SCOPE/METHOD

The relay screening process begins with obtaining a list of electrically operating USI A-46 components that require relay reviews from the Safe Shutdown Equipment List (SSEL) database. This list must not only include equipment that must change position or start to perform a safe shutdown function, it also must consider equipment whose inadvertent actuation due to contact chatter may compromise a safe shutdown function or provide misleading indications in the Control Room. This list of equipment will be a subset of the SSEL obtained by sorting the database using the "Evaluation Required" field. Components coded BR, SR and R will be included on the relay review list. The relay review SSEL is included as Attachment A. The subsequent steps are described in the following paragraphs.

Identify and obtain the associated electrical schematics and/or any other applicable drawings that will be required to identify relays associated with the selected electrical component. Then, review the circuit to identify those portions of the circuit which will affect the operation of the component. In completing the process of identifying associated relays, it may be necessary to review other schematics which contain other relays and contacts which may affect the subject component.

Evaluate the associated relays for each electrically operated component. Identify contacts that are inherently rugged or solid state which are considered not vulnerable to contact chatter and mark an "NV" in the Satisfactory (SAT) column on the relay tabulation sheet. Also identify the normal and required states of the component as indicated on the Relay Review List, and consider the required state of the component for a safe shutdown. Screen those relays whose contact chatter are acceptable; that is, relay chatter does not result in an unacceptable consequence or prevent the affected system from carrying out its required function. These relays are identified with a "CA" in the SAT column. Determine, along with Systems Engineers and Plant Operations, if operator action is an acceptable way of screening out the relay and mark an "OA" in the SAT column. Add a note to the Relay Tabulation Sheets which will describe what operation action is to be taken (Note: currently no relays Lave been screened using Operator Action). Relays whose SAT column remains blank after this evaluation are classified as "essential" and will have their seismic capacity compared to their seismic demand.

For essential relays, identify relay manufacturer, type and model number and also determine if the relay contact is normally open or normally closed, while de-energized, and if the relay coil is energized or not, by using the associated electrical schematics. Compare the essential relay's manufacturer, type and model number found with those identified in Appendix E of Document EPRI NP-7148-SL. Determine if there are any Seismically Sensitive Relays ("Low Ruggedness Relays").

Identify the main and control power supplies and electrical distribution equipment for active electrically operated components so that this equipment of the included on the SSEL. When Component relay reviews are complete, identify and high ght electrical distribution equipment on single line diagrams by tracing back from the electrical whene power source to the preferred power supply.

Using the list of essential relays and associated data, the Seismic Capacity Engineers compare the capacity for the relays to the seismic demand. The methods used for this step are in accordance with the instructions of reference 5.4 which requires compliance with Section 6 of the GIP and the referenced EPRI relay reports.

The summaries of the seismic capacity evaluations are tabulated in Attachment F of this report. Detailed documentation of capacity versus demand comparisons are contained in Attachment H.

3.0 ASSUMPTIONS/LIMITATIONS

In accordance with the relay evaluation methodology outlined in the GIP (ref. 5.1) and in EPRI NP-7148-SL (ref. 5.2), the following assumptions were made.

- 1. Relays/contact devices will be exposed to a 30-second earthquake...
- Relays/contact devices will not be permanently damaged, with the exception of two specific models; the GE IJD (non IE) and the English Electric YCG, as listed in Appendix E of EPRI NP-7148-SL (ref. 5.2).
- "Chatter" is the inadvertent opening or closing of a contact with a sustained output of 2 milliseconds (ref. 5.2).
- Relay/contact device failure modes are: a) contact chatter causes inadvertent and undesired equipment actuation, and b) contact chatter causes failure of equipment to actuate as described.

4.0 RESULTS

The results of various steps identified in section 2.0 are documented as attachments to this report. These results are presented in terms of individual contacts where each relay may have several associated contacts.

A total of 1682 contacts were identified as associated relays for Millstone Unit 2 and are listed in Attachment B. The relays are sorted by System, Equipment ID and Contact Device.

A total of 479 contacts were identified as essential relays for Millstone Unit 2 and are listed in Attachment C. The relays are sorted by System, Equipment ID and Contact Device.

A total of 6 contacts were identified as seismically sensitive relays ("Low Ruggedness Relays") for Millstone Unit 2 and are listed in Attachment D. Note that these relays are "Low Ruggedness" ONLY if they are procured Non 1E.

All essential relays with known make and model and available capacities based on GERS or other acceptable methods were evaluated. The results of these comparisons are included as Attachment F.

Each unique relay make and model within a particular cabinet is documented on a Relay Functional Review Sheet; contacts with identical make and model are then summarized as acceptable without an individual Relay Functional Review Sheet for each contact (since the Relay Functional Review Sheet will be identical). The summary is included in Attachment F and the Relay Functional Review Sheets are included in Attachment H.

A listing and description of outliers is provided in Attachment G. Currently, these include the seismically sensitive relays listed in Attachment D and relays with unknown make and models or with unknown seismic capacities. Note that relays contained in cabinets with potential interaction concerns are not being tracked as outliers; cabinets/panels which house these relays are tracked as outliers in the seismic report.

The majority fo the outliers are associated with the Medium Voltage Switchgears, which may be resolved by Operator Action. Discussions have been initiated with the MP2 operation department to evaluate the possibility of crediting Operator Action; preliminary assessments indicate that this may be acceptable. However, further reviews are required to determine if any procedural change is necessary. Other options are also available and further discussed in the comment section of the OSVS.

5.0 REFERENCES

- 5.1 "Generic Implementation Procedure (GIP) for Seismic Qualification of Nuclear Plant Equipment", Revision 2, Corrected February 1992.
- 5.2 EPRI NP-7148-SL, "Project 2925-8 Final Report", December, 1990 "Procedure for Evaluating Nuclear Power Plant Relay Seismic Functionality"
- 5.3 VECTRA (Formerly ABB Impell) Project Instruction 0240-099-002, "Identification of USI A-46 Safe Shutdown Equipment Relays", latest revision.
- 5.4 VECTRA (Formerly ABB Impell) Project Instruction 0240-099-005, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment at Millstone 1 & 2 Plants", latest revision.
- 5.5 VECTRA (Formerly ABB Impell) Document No. 03-0240-1367, "Preferred Safe Shutdown Paths for Millstone 2.", Rev. 2
- 5.6 VECTRA (Formerly ABR Impell) Document No. 0240-099-003, "A-46 Relay Screening and Evaluation Relay Tabulation for Millistone Point Unit 2.", Rev. 1

.

and

1

-

.

ATTACHMENT A

MILLSTONE UNIT 2 RELAY REVIEW SAFE SHUTDOWN EQUIPMENT COMPONENT LIST

(22 Pages)

-

.

l

I

ATTACHMENT B

MILLSTONE UNIT 2 USI A-46 RELAY SCREENING AND EVALUATION TABULATION "ASSOCIATED RELAYS"

(274 Pages)

Ø

System: CVCS Equipment ID No. : 2-CH-192		46 RELAY SCREENING AND EV MILLSTONE POINT U CUMENT NO. MP2-RELAY.RPT - A	NIT 2		PAGE DATE REV. 0	12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/N	IC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	43X		32009 SH. 53	C01R	CB	36'6"	CA
	# 63XA/LC227		32009 SH. 53	C02R	CB	36'6"	CA
	HS2192/0		32009 SH 53	C02R	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-CH-198			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 2 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N N	O/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1		33/AC/ZS198		32009 SH 30	LOCAL	EB	-5'6"	NV
1		33/AC/ZS505		32009 SH. 30	2-CH-505	EB	-5'6"	NV
GE-HFA	12HFA151A2H	43X		32009 SH. 30	C02R	CB	36'6"	CA
		# CIAS-K505A		39047 SH 9	RC02B	CB	36'6"	CA
		# HS2505		32009 SH. 30	C02	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-210X		USI A-46 RELAY SCREENING MILLSTON DOCUMENT NO. MP2-REL ENE	NE POINT UNIT	2		PAGE DATE REV. 0	12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact			Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	# 63X (Not	e 9)		32009 SH 21	C02R	CB	36'6"	CA
	63X/FQIS	S-210X (Note 9)		32009 SH. 22	C05R	CB	36'8"	CA
	63XA/LC	226 (Note 9)		32009 SH 22	C02R	CB	36'6"	CA
	# 94 (Note	9)		32009 SH. 22	C02R	CB	36'6"	CA
	# HS210			32009 SH 22	C04	CB	36'6"	NV
	# HS2512			32009 SH 21	C04	CB	36'6"	NV

	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-429		USI A-46 RELAY SCREENING AND EVALUATION TABULATI MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 4 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings	(s) Panel	Bldg.	Elev.	SAT.*
	42/C	32009 SH 38	B6117	AB	14'6"	
	42/0	32009 SH 38	B6117	AB	14'6"	
	HS2524	32009 SH 38	C02	CB	36'6"	NV
	HS2524A	32009 SH 38	C10	TB	54'6"	NV
	HS2524B	32009 SH 38	C10	TB	54'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-501		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV.	5	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. D	rawings(s) Panel	Bldg.	Elev.	SAT. *
	42/C		32009 SI	4.6 B5145	AB	14'6"	
	42/0		32009 SI	4.6 B5145	AB	14'6"	
	43X		32009 SI	1.6 C02R	CB	36'6"	CA
	43Y		32009 Si	H 6 C02	CB	Sec.	CA
	# 63XA/LC227		32009 SI	1.6 C02R	СВ	36'6"	CA
	HS2501		32009 S	1.6 C02	CB	36'6"	NV
	HS2501A		32009 SI	H 6 C02	CB	36'6"	NV
	LC-227		28500 SI	H 227 LOCAL	AB	-25'0"	CA
and the second	SIAS1		32009 SI	RC02B	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-504		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 6 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *	
	42/C	32009 SH. 7	B5158	AB	14'6"		
	42/0	32009 SH 7	B5158	AB	14'6"	CA	
	42X	32009 SH. 7	C02	ĊB	36'6"	CA	
	63XA-1/LC227	32009 SH 7	C02R	CB	36'6"	CA	
	HS2504	32009 SH 7	C02	CB	36'6"	NV	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : 2-CH-505			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 7 DATE 12/12/95 REV. 0		
tev. Relay Mfg.8	Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawing	s(s) Panel	Bldg.	Elev.	SAT. *	
1		33/AC/ZS198	32009 SH 30	2-CH-198	EB	-5'6"	NV	
		33/AC/ZS505	32009 SH 30	LOCAL	EB	-5'6"	NV	
GE-HFA	12HFA151A2H	43X	32009 SH 30	C02R	CB	36'6"	CA	
	and the local day in the second s	# CIAS-K505A	39047 SH 9	RC02B	CB	36'6"	CA	
		# HS2505	32009 SH. 30	C02	СВ	36'6"	NV	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-CH-506	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 8 DATE 12/12/9 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
1	33/AC/ZS506		32009 SH 31	LOCAL	RB	-3'6"	NV
·	43X		32009 SH 31	C02R	CB	36'6"	CA
	CIAS2		32009 SH. 31	RC02C	CB	36'6"	CA
	HS2506		32009 SH 31	C02	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-CH-507		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	HS2507			32009 SH 32	C02	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-508			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 10 DATE 12/12/95 REV. 0		
Rev.Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1		42-C/A	NO	NO	32009 SH. 8	B5151	AB	14'6"	CA
1		42-0/A	NO	NO	32009 SH. 8	B5151	AB	14'6"	ĊA
1		42/C			32009 SH. 8	B5151	AB	14'6"	CA
1		42/0			32009 SH. 3	B5151	AB	14'6"	CA
1 GE-HFA	12HFA151A9H	43X	NO	NO	32009 SH. 8	C02R	CB	36'6"	CA
		HS2508			32009 SH. 8	C02	CB	36'6"	NV
		# RELAY SIAS (Note 7)							NA
		SIAS/K519B	NO	NO/NC	39047 SH. 7	RC02B	CB	36'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-509		USI A-46 RELAY SCREENING AND EVALUATION TABU MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RE ENERG		PAGE 11 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Draw	ings(s) Panel	Bldg.	Elev.	SAT. *
	42/C	32009 SH 9	B5149	AB	14'6"	
	42/0	32009 SH 9	B5149	AB	14'6"	
	43X	32009 SH. 9	C02	CB	36'6"	CA
	HS2509	32009 SH. 9	C02	CB	36'6"	NV
	SIAS1	32009 SH 9	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-510			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 12 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay	y Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1		33/AC/ZS510			32009 SH 24	LOCAL			NV
1		42-c/a	NO	NO	32009 SH 10	B6142			CA
1		42-c/o	NO	NO	32009 SH 10	B6142			CA
1 GE-HFA 12HFA	51A42H42	43X	NO	NO	32009 SH 24	C02	CB	36'6"	CA
		HS2510			32009 SH 24	C02	CB	36'6"	NV
		SIAS-2			32009 SH 24	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays)	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	Component not affected by relays. Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-511		USI A-		PAGE 13 DATE 12/12/95 REV. 0						
Re	v.Relay Mfg.&	Type Relay Model No.	Contact	ENERG Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1			33/AC/ZS511			32009 SH 25	LOCAL		1.1.1	NV
1	GE-HFA	12HFA51A42H42	43X	NO	NO	32009 SH 25	C02	CB	36'6"	CA
-			HS2511			32009 SH 25	C02	CB	36'6"	NV
-			SIAS-2			32009 SH 25	RC02C	CB	36'6"	CA
-						and the design of the second				

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-512	USI A-46 RELAY S	PAGE 14 DATE 12/12/95 REV. 0					
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	43X (Note 10)		32009 SH. 21	C02R	CB	36'6"	CA
	43Y (Note 10)		32009 SH. 21	C04	CB	36'6"	CA
	# 63X (Note 10)		32009 SH 23	C02R	CB	36'6"	CA
	63XA/LC-226 (Note 10)		32009 SH. 21	C02R	CB	36'6"	CA
	# 94 (Note 10)		32009 SH 21	C02R	CB	36'6"	CA
	# HS210		32009 SH 21	C04	CB	36'6"	NV
	# HS2512		32009 SH. 21	C04	CB	36'6"	NV
	HS2512A		32009 SH 21	C04	CB	36'6"	NV
	LC-226		28500 SH 226	LOCAL	AB	-5'6"	NV
	SIAS		32009 SH 21	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-514		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 15 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1	42-c/a	NO	NO	32009 SH 10	B6142	AB	14'6"	CA
1	42-c/o	NO	NO	32009 SH 10	B6142	AB	14'6"	CA
1	42/C			32009 SH 10	B6142	AB	14'6"	CA
1	42/0			32009 SH 10	B6142	AB	14'6"	CA
1 GE-HFA 12HFA51A62H42	43X	NO	NO	32009 SH 10	C02R	CB	36'6"	CA
	HS2514			32009 SH 10	C02	CB	36'6"	NV
	SIAS-2/SEQ1			32009 SH 10	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-CH-515	USI A-46 F DOCUMI		PAGE 16 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NG Ref.	Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1	33/AC/ZS515	3200	9 SH 33	LOCAL	RB	-3'6"	NV
	43X	3200	9 SH. 33	C02R	CB	36'6"	CA
	63X/TC221	3200	9 SH 33	C02	CB	36'6"	CA
	HS2515	3200	9 SH 33	C02	CB	36'6"	NV
	SIAS1	3200	9 SH 33	RC02B	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-CH-516	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 17 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	33/AC/ZS516		32009 SH. 34	LOCAL	RB	-3'6"	NV
	43X		32009 SH 34	C02	CB	36'6"	CA
	CIAS2		32009 SH 34	RC02C	CB	36'6"	CA
	HS2516		32009 SH 34	C02	CB	36'6"	NV
	TS516		32009 SH 34	LOCAL	RB	-3'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-517		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 18 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.&	Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HGA	12HGA11J52G	#	94	NO	NO	32009 SH 35	C02R	CB	36'6"	
			HS2517			32009 SH 35	C02	CB	36'6"	NV
			HS2517A			32009 SH 35	C10	TB	54'6"	NV
			HS2517B			32009 SH 35	C10	TB	54'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0 F	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0 F	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1 P	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 R	Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-518 Rev.Relay Mfg.&Type Relay Model No. Conta			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 19 DATE 12/12/95 REV. 0				
		Contact	Y/N	NO/NC	IC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *	
GE-HGA	12HGA11J52	#	94	NO	NO	32009 SH. 36	C02R	CB	36'6"	
1			HS2518			32009 SH. 36	C02	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-519			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 20 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&	Type Relay Model No.		Contact	Y/N	and the second second second	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HGA	12HGA11J52	#	94	NO	NO	32009 SH. 37	C027	CB	36'6"	
			HS2519			32009 SH. 37	C02R	CB	36'6"	NV
			HS2519A			32009 SH 37	C10	TB	54'6"	NV
			HS2519B			32009 SH 37	C10	TB	54'6"	NV
						the product of the second s				

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : 2-CH-910		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 21 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	43Y-2		32009 SH. 60	C04	CB	36'6"	CA
	HS2910		32009 SH 60	C04	CB	36'6"	NV
	SIAS2		32009 SH 60	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWG	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Biank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-CHW-11		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 22 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.
	# 43Y/2	32023 SH 47	C80	CB	36'6"	CA
	HS8847	32023 SH 47	C80	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	_ Date: _	12/12/95

System: HVAC Equipment ID No. : 2-CHW-12		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 23 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		ef. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	# 43Y/2	32	2023 54 48	C80	CB	36'6"	CA
	# HS8854	32	2023 SH. 48	C80	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-CHW-13		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 24 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
#	43Y/2		32023 SH 47	C80	CB	36'6"	CA
	HS8850		32023 SH. 47	C80	CB	36.6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-CHW-14		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 25 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	# 43Y/2		32023 SH. 48	C80	CB	36'6"	CA
	# HS8855		32023 SH 48	C80	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-CHW-3		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 26 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	# 43Y/2	32023 SH 47	C80	CB	36'6"	
	# HS8846	32023 SH 47	C80	CB	36'6"	NV

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepured by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

. 1

System: HVAC Equipment ID No. : 2-CHW-33	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 27 DATE 12/12/99 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	# 43Y/2	32023 SH 48	C80	CB	36'6"	CA
	# HS8853	32023 SH 48	C80	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: COND Equipment ID No. : 2-CN-241		USI A-48 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY. ENERC	POINT UNI	2		PAGE DATE REV. 0	28 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	LC5280C			32012 SH. 30	LOCAL	EB	14'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HPSI Equipment ID No. : 2-CS-13.1A	USI A-46 RELAY SCREENING AI MILLSTONE P DOCUMENT NO. MP2-RELAY.I ENERG		NT UNIT	2		PAGE 29 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		IO/NC I	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C			32008 SH 27	B5124	AB	14'6"	
	42/0			32008 SH. 27	B5124	AB	14'6"	CA
	HS3010			32008 SH 27	C01	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HPSI Equipment ID No. : 2-CS-13.1B		USI A 46 RELAY SCREENING AND E MILLSTONE POINT DOCUMENT NO. MP2-RELAY.RPT ENERG		PAGE 30 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact		O/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C		32008 SH. 28	B6125	AB	14'6"	
	42/0		32008 SH. 28	B6125	AB	14'6"	CA
	HS3011		32008 SH 28	C01	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.		Reviewed by:		Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: CS Equipment ID No. : 2-CS-4.1A		ELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 NT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 31 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C			32008 SH 29	B5150	AB	14'6"	CA
	42/0			32008 SH. 29	B5150	AB	14'6"	
	43X			32008 SH. 29	C01	CB	36'6"	CA
	CSAS-K510A	NO	NO	39047 SH 10	RC02B	CB	36'6"	
	HS3021			32008 SH 29	C01	CB	36'6"	NV
	# RELAY CSAS (Note 6)							NA

NV -	Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	Operator action. Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: CS Equipment ID No. : 2-CS-4.1B	MILLSTONE PO		MILLSTONE POINT UNIT 2 DATE 12/12/ DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS REV. 0					
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C			32006 SH 30	B6124	AB	14'6"	CA
	42/0			32008 SH 30	B6124	AB	14'6"	
	43X			32008 SH. 30	C01	CB	36'6"	CA
	CSAS-K610A	NO	NC	39047 SH 14	RC02C	CB	36'6"	
	HS3022			32008 SH 30	C01	CB	36'6"	NV
and the second	# RELAY CSAS (Note 6)							NA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: DG Equipment ID No. :	2-DG-27A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					PAGE 33 DATE 12/12/95 REV. 0		
ev. Relay Mfg.&T	ype Relay Model No.	Contact	ENERO Y/N	No. of the local division of the local divis	Ref. Drawings(s)	Panel	Bldg.	Floy	SAT. *
		# 4(DG-A)			32041 SH 3 & 4	T040	AB	14'6"	SAT.
GE-HEA	12HEA63C238	# 43-1(DG-A)	Y/N	NO/NC	32041 SH. 3 & 4	C38	AB	14'6"	
		# 43-MSS(DG-A)			32041 SH 3	C08	CB	36'6"	NV
		# 43-MSS3(DG-A)			32041 SH 3	C38	AB	14'6"	
		# 43-MSSX(DG-A)			32041 SH 4	C38	AB	14'6"	
		# DGH7A			32041 SH 3	C08	СВ	36'6"	NV
ITE		# HSR(DG-A)	NO	NO	32041 SH 3 & 4	T040	AB	14'6"	
		# LP1/K530A			32041 SH 3	RC02B	CB	36'6"	
ITE		# LSR(DG-A)			32041 SH. 3 & 4	T040	AB	14'6"	
		# OPS(DG-A)			32041 SH. 4	T040	AB	14'6"	
		# PB1(DG-A)			32041 SH. 4	T040	AB	14'6"	NV
		# PB100(DG-A)			32041 SH 3	C38	AB	14'6"	NV
		# PB15(DG-A)			32041 SH. 3	C38	AB	14'6"	NV
		# PB3(DG-A)			32041 SH. 5	T040	AB	14'6"	NV
ITE		# SDR (A) (Note 1)	NO	NO	32041 SH 3 & 4	T040	AB	14'6"	
ITE		# SFR(DG-A)			32041 SH 3	T040	AB	14'6"	
	ander See merzen an einer an die einer het einer einer die einer der einer die einer d	# SSW (250)(DG-A)			32041 SH. 4	T040	AB	14'6"	
		# SSW (810)(DG-A)			32041 SH. 4	1040	AB	14'6"	
AGASTAT	E7022PD002	# TD1(DG-A)	Y/N	NO/NC	32041 SH. 7	T040	AB	14'6"	
AGASTAT	2422DB	# TD3(DG-A)	Y/N	NO	32041 SH. 3 & 4	C38	AB	14'6"	
AGASTAT	2422PB	# TD4(DG-A)	Y/N	NO	32041 SH. 3 & 4	C38	AB	14'6"	
AGASTAT	E7022PB004	# TD7(DG-A)	Y/N	NO	32041 SH. 7	T040	AB	14'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: DG **USI A-46 RELAY SCREENING AND EVALUATION TABULATION** PAGE 34 **MILLSTONE POINT UNIT 2** DATE 12/12/95 REV. 0 Equipment ID No.: 2-DG-27B DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG Rev. Relay Mfg.& Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) Panel Bidg. Elev. SAT. * # 4(DG-B) 32041 SH 16 T041 AB 14'6" GE-HEA 12HEA63C238 # 43-1(DG-B) Y/N NO/NC 32041 SH. 15 & 16 C39 AB 14'6" # 43-MSS(DG-B) 32041 SH. 15 C08 CB. 36'6" NV # 43-MSS3(DG-B) 32041 SH 15 & 16 C39 AB 14'6" NV # 43-MSSX(DG-B) 32041 SH 16 C39 AB 14'6" # DGH7B 32041 SH 15 C08 CB 36'6" NV # HSR(DG-B) NO 32041 SH 15 & 16 T041 NO AB 14'6" # LPII/K630A 32041 SH 15, 32047 SH 15 RC02C CB 36'6" # LSR(DG-B) 32041 SH 15 & 16 T041 AB 14'6" # OPS(DG-B) 32041 SH 16 T041 AB 14'6" # PB1(DG-B) 32041 SH 16 T041 AB 14'6" NV # PB100(DG-B) 32041 SH 15 C39 AB 14'6" NV # PB15(DG-B) 32041 SH 15 C39 AB 14'6" NV # PB3(DG-B) 32041 SH. 17 T041 AB 14'5" NV # SDR (B) (Note 2) 32041 SH 15 & 16 NO NO T041 AB 14'6" # SFR(DG-B) 32041 SH 15 T041 AB 14'6" # SSW (250)(DG-B) 32041 SH 16 T041 AB 14'6" # SSW (810)(DG-B) 32041 SH. 16 T041 AB 14'6" AGASTAT 2422PC # TD1(DG-B) 32041 SH 19 Y/N NO/NC T041 AB 14'6" 32041 SH. 15 & 16 Y/N NO AGASTAT 2422PB # TD3(DG-B) C39 AB 14'6" 32041 SH. 15 & 16 AGASTAT E7022PC002 # TD4(DG-B) Y/N NO C39 AB 14'6"

Y/N

NO

32041 SH 19

T041

AB

14'6"

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.
 CA - Chatter acceptable.

TD7(DG-B)

N	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
	WGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
N/ Cl		REV 1 Prepared by:		Date:	12/12/95
0		REV 1 Reviewed by:		Date:	
BI	ank - Essential Contact.	REV. 1 Reviewed by.	00	Date.	12/12/95

System: DG

USI A-46 RELAY SCREENING AND EVALUATION TABULATION

Equipment ID No. : 2-DG-95A

MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

ENERG

PAGE 35 DATE 12/12/95 REV. 0

	ENERG	3					
No. Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
# 4(DG-A)			32041 SH 3 & 4	T040	AB	14'6"	
# 43-1(DG-A)	Y/N	NO/NC	32041 SH 3 & 4	C38	AB	14'6"	
# 43-MSS(DG-A)			32041 SH. 3	C08	CB	36'6"	NV
# 43-MSS3(DG-A)			32041 SH 3	C38	AB	14'6"	NV
# 43-MSSX(DG-A)			32041 SH 4	C38	AB	14'6"	
# DGH7A			32041 SH 3	C08	CB	36'6"	NV
# HSR(DG-A)	NO	NO	32041 SH 3 & 4	T040	AB	14'6"	
# LF1/K530A			32041 SH 3	RC02B	CB	36'6"	
# LSR(DG-A)			32041 SH 3 & 4	T040	AB	14'6"	
# OPS(DG-A)			32041 SH 4	T040	AB	14'6"	
# PB1(DG-A)			32041 SH 4	T040	AB	14'6"	NV
# PB100(DG-A)			32041 SH. 3	C38	AB	14'6"	NV
# PB15(DG-A)			32041 SH 3	C38	AB	14'6"	NV
# PB3(DG-A)			32041 SH 5	T040	AB	14'6"	NV
# SDR (A) (Note 1)	NO	NO	32041 SH 3 8 4	T040	AB	14'6"	
# SFR(DG-A)			32041 SH. 3	T040	AB	14'6"	
# SSW (250)(DG-A)			32041 SH 4	T040	AB	14'6"	
# SSW (810)(DG-A)			32041 SH 4	T040	AB	14'6"	
# TD1(DG-A)	Y/N	NO/NC	32041 SH 7	T040	AB	14'6"	
# TD3(DG-A)	Y/N	NO	32041 SH. 3 & 4	C38	AB	14'6"	
# TD4(DG-A)	Y/N	NO	32041 SH 3 & 4	C38	AB	14'6"	
# TD7(DG-A)	Y/N	NO	32041 SH 7	T040	AB	14'6"	
	 # 4(DG-A) # 43-1(DG-A) # 43-MSS(DG-A) # 43-MSS3(DG-A) # 43-MSS3(DG-A) # DGH7A # DGH7A # HSR(DG-A) # LF1/K530A # LF1/K530A # LSR(DG-A) # PB100(DG-A) # PB100(DG-A) # PB15(DG-A) # PB3(DG-A) # PB3(DG-A) # SDR (A) (Note 1) # SFR(DG-A) # SSW (250)(DG-A) # TD1(DG-A) # TD3(DG-A) # TD4(DG-A) 	No. Contact Y/N # 4(DG-A) Y/N # 43-1(DG-A) Y/N # 43-MSS(DG-A) Y/N # 43-MSS3(DG-A) Y/N # 43-MSS3(DG-A) NO # 43-MSS3(DG-A) NO # 43-MSS3(DG-A) NO # 43-MSS3(DG-A) NO # DGH7A NO # LF1/K530A NO # LSR(DG-A) NO # PB100G-A) PB100(DG-A) # PB100(DG-A) PB15(DG-A) # PB3(DG-A) NO # SDR (A) (Note 1) NO # SSW (250)(DG-A) Y/N # SSW (810)(DG-A) Y/N # TD3(DG-A) Y/N # TD4(DG-A) Y/N	No. Contact Y/N NO/NC # 4(DG-A) Y/N NO/NC # 43-1(DG-A) Y/N NO/NC # 43-MSS(DG-A) Y/N NO/NC # 43-MSS(DG-A) Y/N NO/NC # 43-MSS3(DG-A) Y/N NO/NC # 43-MSS3(DG-A) Y/N NO/NC # 43-MSS3(DG-A) Y/N NO # DGH7A NO NO # DGH7A NO NO # DGH7A Y/N NO # DGH7A NO NO # LP1/K530A NO NO # LSR(DG-A) YOS(DG-A) YOS(DG-A) # PB100(DG-A) YOS(DG-A) YOS(DG-A) # PB3(DG-A) YOS(DG-A) YOS(DG-A) # SSW (250)(DG-A) Y/N NO # TD1(DG-A) Y/N NO/NC # TD3(DG-A) Y/N NO # TD4(DG-A) Y/N NO	No. Contact Y/N NO/NC Ref. Drawings(s) # 4(DG-A) 32041 SH 3 & 4 32041 SH 3 & 4 # 43-1(DG-A) Y/N NO/NC 32041 SH 3 & 4 # 43-MSS(DG-A) 32041 SH 3 & 4 32041 SH 3 & 4 # 43-MSS3(DG-A) 32041 SH 3 32041 SH 3 # 43-MSS3(DG-A) 32041 SH 3 32041 SH 3 # 43-MSSX(DG-A) 32041 SH 3 32041 SH 3 # 43-MSSX(DG-A) 32041 SH 3 32041 SH 3 # DGH7A 32041 SH 3 32041 SH 3 # DGH7A 32041 SH 3 4 # DGH7A 32041 SH 3 4 # DGH7A 32041 SH 3 4 # DF1/K530A 32041 SH 3 3 # DSR(DG-A) 32041 SH 3 4 # DPS100(DG-A) 32041 SH 3 3 # PB100(DG-A) 32041 SH 3 4 # PB15(DG-A) 32041 SH 3 4	No. Contact Y/N NO/NC Ref. Drawings(s) Panel # 4(DG-A) 32041 SH 3 & 4 T040 # 43-1(DG-A) Y/N NO/NC 32041 SH 3 & 4 C38 # 43-MSS(DG-A) 32041 SH 3 & 4 C38 C38 # 43-MSS3(DG-A) 32041 SH 3 C08 # 43-MSS3(DG-A) 32041 SH 3 C38 # DGH7A 32041 SH 3 C08 # DGH7A 32041 SH 3 & 4 T040 # HSR(DG-A) NO NO 32041 SH 3 & 4 T040 # LSR(DG-A) 32041 SH 3 & 4 T040 # # DPS(DG-A) 32041 SH 3 C38 # # DB100(DG-A) 32041 SH 3 C38 # # PB100(DG-A) 32041 S	No. Contact Y/N NO/NC Ref. Drawings(s) Panel Bldg. # 4(DG-A) 32041 SH 3 & 4 T040 AB # 43.1(DG-A) Y/N NO/NC 32041 SH 3 & 4 C38 AB # 43.MSS(DG-A) Y/N NO/NC 32041 SH 3 C08 CB # 43.MSS3(DG-A) 32041 SH 3 C38 AB # 43.MSSX(DG-A) 32041 SH 3 C38 AB # 43.MSSX(DG-A) 32041 SH 3 C08 CB # 43.MSSX(DG-A) 32041 SH 3 C08 CB # 43.MSSX(DG-A) NO NO 32041 SH 3 C08 CB # DGH7A 32041 SH 3 A T040 AB # LSR(DG-A) 32041 SH 3 RC02B CB # LSR(DG-A) 32041 SH 3 T040 AB # PB100CG-A) 32041 SH 4 T040 AB # PB100CG-A) <td< td=""><td>No. Contact Y/N NO/NC Ref. Drawings(s) Panel Bldg. Elev. # 4(DG-A) 32041 SH 3 & 4 T040 AB 14'6" # 43-1(DG-A) Y/N NO/NC 32041 SH 3 & 4 C38 AB 14'6" # 43-MSS(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) 32041 SH 3 C38 AB 14'6" # 43-MSS3(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) NO NO 32041 SH 3 C08 CB 36'6" # DGH7A 32041 SH 3 C08 CB 36'6" # LF1/K530A 32041 SH 3 RC02B CB 36'6" # LSR(DG-A) 32041 SH 3 T040 AB 14'6" # DPS1(DG-A) 32041 SH 3 C38 AB 14'6" # PB10(DG-A)</td></td<>	No. Contact Y/N NO/NC Ref. Drawings(s) Panel Bldg. Elev. # 4(DG-A) 32041 SH 3 & 4 T040 AB 14'6" # 43-1(DG-A) Y/N NO/NC 32041 SH 3 & 4 C38 AB 14'6" # 43-MSS(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) 32041 SH 3 C38 AB 14'6" # 43-MSS3(DG-A) 32041 SH 3 C08 CB 36'6" # 43-MSS3(DG-A) NO NO 32041 SH 3 C08 CB 36'6" # DGH7A 32041 SH 3 C08 CB 36'6" # LF1/K530A 32041 SH 3 RC02B CB 36'6" # LSR(DG-A) 32041 SH 3 T040 AB 14'6" # DPS1(DG-A) 32041 SH 3 C38 AB 14'6" # PB10(DG-A)

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: DG PAGE 36 **USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2** DATE REV. 0 Equipment ID No. : 2-DG-95B 12/12/95 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG Rev. Relay Mfg.& Type Relay Model No. Y/N Contact NO/NC Ref. Drawings(s) Panel Bldg. Elev. SAT.* # 4(DG-B) 32041 SH. 16 T041 AB 14'6" # 43-1(DG-B) GE-HEA 12HEA63C238 Y/N NO/NC 32041 SH 16 C39 AB 14'6" # 43-MSS(DG-B) 32041 SH 15 C08 CB 36'6" NV # 43-MSS3(DG-B) 32041 SH 16 C39 AB 14'6" NV # 43-MSSX(DG-B) 32041 SH 16 C39 AB 14'6" # DGH7B 32041 SH 15 C08 CB 36'6" NV # HSR(DG-B) NO NO 32041 SH 16 T041 AB 14'6" # LPII/K630A 32041 SH. 15 RC02C CB 36'6" # LSR(DG-B) 32041 SH 16 T041 AB 14'6" # OPS(DG-B) 32041 SH. 16 T041 AB 14'6" # PB1(DG-B) 32041 SH 16 T041 AB 14'6" NV # PB100(DG-B) 32041 SH 15 C39 AB 14'6" NV # PB15(DG-B) 32041 SH. 15 C39 AB 14'6" NV # "B3(DG-B) 32041 SH. 17 T041 AB 14'6" NV # SDR (B) (Note 2) NO NO 32041 SH. 16 T041 AB 14'6" # SFR(DG-B) 32041 SH 15 T041 AB 14'6" # SSW (250)(DG-B) 32041 SH. 16 T041 AB 14'6" # SSW (810)(DG-B) 32041 SH. 16 T041 AB 14'6" AGASTAT 2422PC # TD1(DG-B) Y/N NO/NC 32041 SH 19 T041 AB 14'6" AGASTAT 2422PB # TD3(DG-B) Y/N NO 32041 SH. 15, 16 C39 AB 14'6" AGASTAT E7022PC002 # TD4(DG-B) Y/N NO 32041 SH. 16 C39 AB 14'6" 32041 SH 19 # TD7(DG-B) Y/N NO T041 AB 14'6"

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV -	Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0	Prepared by: _	DJR	Date:	12/12/95
	ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by: _	JJB	Date:	12/12/95
	Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	Operator action. Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: DG Equipment ID No. : 2-DG-96A			US! A-46 RELA	PAGE 37 DATE 12/12/95 REV. 0						
Rev. Relay Mfg.&7	Type Relay Model No.		Contact	ENERO Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
		#	4(DG-A)			32041 SH. 3	T040	AB	14'6"	
GE-HEA	12HEA63C238	#	43-1(DG-A)	Y/N	NO/NC	32041 SH 3	C38	AB	14'6"	
		#	43-MSS(DG-A)			32041 SH. 3	C08	CB	36'6"	NV
		#	43-MSS3(DG-A)			32041 SH. 3 & 4	C38	AB	14'6"	NV
		#	DGH7A			32041 SH 3	C08	CB	36'6"	NV
ITE		#	HSR(DG-A)	NO	NO	32041 SH. 3 & 4	T040	AB	14'6"	
	n de la companya de l	#	LP1/K530A			32041 SH. 3	RC02B	CB	36'6"	
ITE		#	LSR(DG-A)			32041 SH. 3 & 4	T040	AB	14'6"	
		#	OPS(DG-A)			32041 SH 4	T040	AB	14'6"	
		#	PB1(DG-A)			32041 SH. 4	T040	AB	14'6"	NV
		#	PB100(DG-A)			32041 SH. 3	C38	AB	14'6"	NV
		#	PB15(DG-A)			32041 SH 3	C38	AB	14'6"	NV
		#	PB3(DG-A)			32041 SH 5	T040	AB	14'6"	NV
ITE		#	SDR (A) (Note 1)	NO	NO	32041 SH. 3 & 4	T040	AB	14'6"	
ITE		#	SFR(DG-A)			32041 SH. 3 & 7	T040	AB	14'6"	
		#	SSW (250)(DG-A)			32041 SH 4	T040	AB	14'6"	
		#	SSW (810)(DG-A)			32041 SH 4	T040	AB	14'6"	
AGASTAT	E7022PD002	#	TD1(DG-A)	Y/N	NO/NC	32041 SH. 7	T040	AB	14'6"	
AGASTAT	2422DB	#	TD3(DG-A)	Y/N	NO	32041 SH. 3	C38	AB	14'6"	
AGASTAT	2422PB	#	TD4(DG-A)	Y/N	NO	32041 SH 3	C38	AB	14'6"	
AGASTAT	E7022PB004	#	TD7(DG-A)	Y/N	NO	32041 SH. 7	T040	AB	14'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:		Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action.	REV 1 Reviewed by:		Date:	12/12/95
Blank - Essential Contact.	NL V. 1			

System: DG Equipment ID No. : 2-DG-96B			USI A-46 RELA		PAGE 38 DATE 12/12/95 REV. 0					
ev.Relay Mfg.&	Type Relay Model No.		Contact	ENERC Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
		#	4(DG-B)			32041 SH. 15	T041	AB	14'6"	
GE-HEA	12HEA63C238	#	43-1(DG-B)	Y/N	NO/NC	32041 SH. 15	C39	AB	14'6"	
		#	43-MSS(DG-B)			32041 SH. 15	C98	CB	36'6"	NV
		#	43-MSS3(DG-B)			32041 SH 15	C39	AB	14'6"	NV
		#	DGH7B			32041 SH 15	C08	CB	36'6"	NV
		#	HSR(DG-B)	NO	NO	32041 SH. 15	T041	AB	14'6"	
		#	LPII/K630A			32041 SH. 15	RC02C	CB	36'6"	
		#	LSR(DG-B)			32041 SH 15	T041	AB	14'6"	
		#	OPS(DG-B)			32041 SH 16	T041	AB	14'6"	
		#	PB1(DG-B)			32041 SH 16	T041	AB	14'6"	NV
		#	PB100(DG-B)			32041 SH 15	C39	AB	14'6"	NV
		#	PB15(DG-B)			32041 SH. 15	C39	AB	14'6"	NV
		#	PB3(DG-B)			32041 SH. 17	T041	AB	14'6"	NV
		#	SDR (B) (Note 2)	NO	NO	32041 SH 15	T041	AB	14'6"	
		#	SFR(DG-B)			32041 SH. 15	T041	AB	14'6"	
		#	SSW (250)(DG-B)			32041 SH 16	T041	AB	14'6"	
		#	SSW (810)(DG-B)			32041 SH 16	T041	AB	14'6"	
AGASTAT	2422PC	#	TD1(DG-B)	Y/N	NO/NC	32041 SH 19	T041	AB	14'6"	
AGASTAT	2422PB	弊	TD3(DG-B)	Y/N	NO	32041 SH 15	C39	AB	14'6"	
AGASTAT	E7022PC002	#	TD4(DG-B)	Y/N	NO	32041 SH. 15	C39	AB	14'6"	
		#	TD7(DG-B)	Y/N	NO	32041 SH. 19	T041	AB	14'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV 1 Prepared by:		Date:	12/12/95
OA - Operator action.	REV 1 Reviewed by:		Date:	12/12/95
Blank - Essential Contact.	REV. 1 Horistica by.		Date.	12/12/00

System: AFW Equipment ID No. : 2-FW-12A		USI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY. ENERC	POINT UNIT	2			39 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	HS5421			32012 SH 27	C05	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: AFW Equipment ID No. : 2-FW-12B		USI A-46 RELAY SCREENING AND MILLSTONE POI DOCUMENT NO. MP2-RELAY RP ENERG	INT UNIT	2		PAGE DATE REV. 0	40 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS5422			32012 SH. 28	C05	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWG	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: AFW Equipment ID No. : 2-FW-43A			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	41 12/12/95			
Rev	.Relay Mfg.&Ty	pe Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	GE-HFA	12HFA151A2H		20X/Z1	NO	NO	32012 SH. 21	C05F	СВ	36'6"	
1	GE-HFA	12HFA151A9H	#	86Z1A	NO	NC	32012 SH. 21 & 44	C05F	CB	36'6"	CA
1	GE-HFA	12HFA151A9H	#	86Z2B	NO	NC	32012 SH. 21 & 45	C05	СВ	36'6"	CA
			#	HS4188C			32012 SH. 44	C21	AB	38'6"	NV
				HS4188E			32012 SH. 44	C05	CB	36'6"	NV
				HS5276A			32012 SH. 21	C05	CB	36'6"	NV
-				HS5276B			32012 SH. 21	C21	AB	38'6"	NV

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	CGERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: AFW Equipment ID No. : 2-FW-43B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 42 DATE 12/12/95 REV. 0					
Rev.	tev. Relay Mfg.&Type Relay Model No. C		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*	
	GE-HFA	12HFA151A2H	1	20X/Z2	NO	NO	32012 SH 22	C05F	CB	36'6"	
			1	62BD55	Andrew and a subset of the		32012 SH. 45	C05	CB	36'6"	CA
			1	62Z2			32012 SH 45	C05	CB	36'6"	CA
			1	86Z1B			32012 SH. 22	C05	CB	36'6"	CA
1 (GE-HFA	12HFA151A9H	#	86Z2A	NO	NO/NC	32012 SH 22 & 45	C05	CB	36'6"	CA
			# 1	86Z2B			32012 SH 45	C05	CB	36'6"	CA
			#	HS4188D		No. of Concession, Stationer	32012 SH 45	C21	AB	38'6"	NV
			1	HS4188F	er na hennen hennen hennen hennen hennen hennen hennen an der eine sonnen an der einen an der einen sonnen an d		32012 SH. 45	C05	CB	36'6"	NV
			1	HS5279A			32012 SH. 22	C05	CB	36'6"	NV
			1	HS5279B			32012 SH 22	C21	AB	38'6"	NV
			1	HS5279C			32012 SH 22	C10	TB	54'6"	NV
			1	HS5279D			32012 SH 22	C10	TB	54'6"	NV
				JY-010			32012 SH. 45	RC30B	СB	36'6"	CA

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: AFW Equipment ID No. : 2-FW-44		USI A-46 RELAY SCREENING AND EVALUATION TABULATIO MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 43 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings	(s) Panel	Bldg.	Elev.	SAT.*
	42/C	32012 SH 13	B6203	AB	36'6"	
	42/0	32012 SH. 13	B6203	AB	36'6"	CA
	HS5275A	32012 SH. 13	C05	CB	36'6"	NV
	HS5275B	32012 SH 13	C21	AB	38'6"	NV

	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR (GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: AFW Equipment ID No. : 2-FW-5A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 44 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC I	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	HS5419		32012 SH 25	C05	СВ	36'6"	NV
	MSI-K526B		39047 SH. 10	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: AFW Equipment ID No. : 2-FW-5B		USI A-46 RELAY SCREENING AND EV MILLSTONE POINT DOCUMENT NO. MP2-RELAY.RPT - ENERG		PAGE 45 DATE 12/12/95 REV. 0			
Rev.Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/	NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS5420		32012 SH. 26	C05	СВ	36'6"	NV
	MSI-K626B		39047 SH 14	RC02C	CB	36'6"	CA

NV -	Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
	Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
	Operator action. Essential Contact.	REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-203A			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 46 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.8	& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*	
		33/AC (Note 18)	32023 SH 1	LOCAL	AB	36'6"	NV	
1		33/BO (Note 18)	32023 SH. 1	LOCAL	AB	36'6"	NV	
TEL	CLASS T	# 3X-1/J10 (Note 18)	32023 SH. 37	C25A	CB	36'6"	CA	
TEL	CLASS T	# 3X/J10 (Note 18)	32023 SH. 1, 37	C25A	CB	36'6"	CA	
		# 42 (Note 18)	32023 SH. 1	B5214	AB	38'6"	CA	
		# 45X/J10	32023 SH 37	C25A	CB	36'6"	CA	
		# 49 (Note 18)	32023 SH 1	B5214	AB	38'6"	CA	
PYROTONIC	SYS ZIU-6 PCB	# AS8362 (Note 18)	32023 SH 37	C26	CB	36'6"	ĊA	
		# HS8004A	32023 SH. 37	C25A	CB	36'6"	NV	
		# HS8009	32023 SH 1	C25A	CB	36'6"	NV	
		# SEQ. 0/K534B	32023 SH 1, 39047 SH 11	RC02B	CB	36'6"	CA	
		SEQ. 4/K534H	32023 SH. 1, 39047 SH. 11	RC02B	CB	36'6"	CA	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-203B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	33/AC (Note 18)	32023 SH 2	LOCAL	AB	36'6"	NV
1	33/BO (Note 18)	32023 ŠH. 2	LOCAL	AB	36'6"	NV
	# 3X-1/J10 (Note 18)	32023 SH. 2, 39A	C25B	CB	36'6"	CA
TEL J10	# 3X/J10 (Note 18)	32023 SH 2, 39A	C25B	CB	36'6"	CA
	42A (Note 18)	32023 SH 2	B3234	AB	36'6"	CA
	# 45X	32023 SH 39	C25B	CB	36'6"	CA
	# 49 (Note 18)	32023 SH 2	B6234	AB	36'6"	CA
PYROTONIC SYS ZIU-6 PCB	# AS8358 (Note 18)	32023 SH. 2	C26	CB	36'6"	CA
	# HS8010	32023 SH. 2	C25B	CB	36'6"	NV
	# SEQ. 0/K634B (Note 18)	32023 SH. 2, 39047 SH. 15	RC02C	CB	36'6"	CA
	# SEQ. 4/K634H (Note 18)	32023 SH 2, 39047 SH 15	RC02C	CB	36'6"	CA

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SV/GR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-206A			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 48 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1		33/AC			32023 SH 3	LOCAL	AB	36'6"	NV
1		33/BO			32023 SH 3	LOCAL	AB	36'6"	NV
	#	42			32023 SH 3	B5211	AB	38'6"	ĊĂ
	#	49			32023 SH 3	B5211	AB	38'6"	CA
	#	HS8001			32023 SH. 3	C25A	CB	36'6"	NV
1	#	SEQ. 0/K534C	NO	NC	32023 SH 3, 39047 SH 11	RC02B	CB	36'6"	CA
	#	SEQ. 4/K534G			32023 SH. 3, 39047 SH. 11	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-206B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE 49 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.		Contact		Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1		33/AC				32023 SH 4	LOCAL	AB	36'6"	NV
1		33/BO				32023 SH 4	LOCAL	AB	36'6"	NV
	#	42			Constitutioner with the second second	32023 SH 4	B6228	AB	36'6"	CA
	#	49				32023 SH 4	B6228	AB	36'6"	CA
	#	HS8000				32023 SH 4	C25B	CB	36'6"	NV
1	#	SEQ. 0/K634	iC	NO	NC	32023 SH 4, 39047 SH 15	RC02C	CB	36'6"	CA
	#	SEQ. 4/K634	IG			32023 SH 4, 39047 SH 15	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-209		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	50 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Rof. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS8359			29132 SH 508	C25B	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-214A			USI A-46 RELAY SCREENING AN MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG		PAGE 51 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.&Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	#	42/MF21A			32023 SH. 1, 53	B5214	AB	38'6"	CA
	#	HS9779			32023 SH 53	X42A	AB	56'6"	NV
1	#	M1	NO	NO	32023 SH 53	C25A	CB	36'6"	CA
1	#	TS9779			32023 SH 53	LOCAL	AB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SW/GR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-214B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 52 DATE 12/12/95 REV. 0		
Rev.Relay Mfg.&Type Relay Model No.		Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	42/MF21A			32023 SH. 1, 53	B5214	AB	38'6"	CA
	#	HS9779			32023 SH. 53	X42A	AB	36'6"	NV
1	#	M1	NÔ	NO	32023 SH 53	C25A	CB	36'6"	CA
1	#	TS9779			32023 SH. 53	LOCAL	AB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-215A			USI A-46 RELAY SCREENING AN MILLSTONE P DOCUMENT NO. MP2-PELAY.I ENERG		PAGE 53 DATE 12/12/95 REV. 0				
Rev.Relay Mfg.&Type Relay Model No.		Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	#	42/MF21B			32023 SH. 2, 54	B6234	AB	36'6"	CA
	#	HS9780			32023 SH 54	X42B	AB	36'6"	NV
1	#	M1	NO	NO	32023 SH 54	C25B	CB	36'6"	CA
1	#	TS9780			32023 SH. 54	LOCAL	AB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGI	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-215B			USI A-46 RELAY SCREENING AND EVALUATION TABULATIO MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		r 2		PAGE 54 DATE 12/12/ REV. 0		
Rev. Relay Mfg.&Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	42/MF21B			32023 SH. 2, 54	86234	AB	36'6"	CA
	#	HS9780			32023 SH. 54	X42B	AB	36'6"	NV
1	#	M1	NO	NO	32023 SH 54	C25B	CB	36'6"	CA
1	#	TS9780			32023 SH. 54	LOCAL	AB	36'6"	CA

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-253B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	55 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS8014			32023 SH. 32	NHV8014	AB	14'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-255A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	56 12/12/95)
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
	42 (Note 3)		32023 SH 7	B5140	AB	14'6"

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _		Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-255B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	57 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
	42 (Note 4)			32023 SH 8	B6147	AB	14'6"

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-274		DOCUMENT NO. MP2-RELAY.R	MILLSTONE POINT UNIT 2 NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	33/AC			32023 SH 43	HV8843	TB	56'6"	NV
1	33/BO			32023 SH. 43	HV8843	TB	56'6"	NV
	42			32023 SH 43	B6154	AB	14'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays)	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	COMPONENT OF THE REPORT OF THE	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-509			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 59 DATE 12/12/95 REV. 0		,
Rev. Relay Mfg.& Type Relay Model No.	C	ontact	YIN	the state of the state of the state of the	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	# 42	2			32023 SH. 58	B5235	AB	38'6"	CA
	# 43	2			32023 SH. 44	B5224	AB	38'6"	ČA
	# 49	9			32023 SH 58	B5235	AB	38'6"	CA
1	# H	PC			32023 SH 58, 29136 SH 44	X169A	TB	14'6"	CA
	# H	S8845			32023 SH. 44	C80	CB	36'6"	NV
	# H	\$9855			32023 SH. 58	X169A	TB	14'6"	NV
1	# L	TC(X169A)			32023 SH 53 29136 SH 44	X169A	TB	14'6"	ČA
1	# M	P	YES	NO	32023 SH 58, 29136 SH 44	X169A	TB	14'6"	CA
1	# 0	PC(X169A)			32023 SH 58, 29136 SH 44	X169A	TB	14'6"	CA
1	# T	C			32023 SH. 58, 29136 SH. 44	X169A	TB	14'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : 2-HV-510			USI A-46 RELAY SCREENING MILLSTONE DOCUMENT NO. MP2-RELAY		PAGE 60 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.& Type Relay Model No.		Contact	ENER Y/N	The second	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	42			32023 SH 45	B6238	AB	36'6"	CA
	#	42			32023 SH 59	B6241	AB	36'6"	CA
	#	49	and the second		32023 SH. 59	B6241	AB	36'6"	CA
1	#	HPC			32023 SH. 59, 31057 SH. 5	X169B	TB	14'6"	CA
	#	HS8852			32023 SH. 45	C80	CB	36'6"	NV
	#	HS9856			32023 SH 59	X169B	TB	14'6"	NV
1	#	LTC(X169B)			32023 SH. 59, 31057 SH 5	X169BC	TB	14'6"	CA
1	#	MP	YES	NO	32023 SH 59, 31057 SH 5	X169B	TB	14'6"	CA
1	#	OPC(X169B)			32023 SH. 59, 31057 SH. 5	X169B	TB	14'6"	CA
	#	TC		and and a start of the start of the	32023 SH. 59, 31057 SH. 5	X169B	TB	14'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state	e relays). REV. 0 Prepared	by:DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed	by:JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared	by: PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed	by: <u>CB</u>	Date:	12/12/95

-,	MS ID No. : 2-MS-190A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS			PAGE 61 DATE 12/12/95 REV. 0		
Rev. Relay	Mfg.&Type Relay Model I	No.	Contact	ENERG Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *	
GE-HF	a second a second a second a		1X/UV4165	NO	NO	32020 SH 61	C05R	CB	36'6"		
GE-HO	A 12HGA11J52G	#	63X-1/4224	NO	NO	32020 SH 61	C05R	CB	36'6"		
1	SB SWITCH	#	94TG-1/0/15G-2U	NO	NO	32020 SH 43	CG7R	CB	36'6"	NV	
1	SB SWITCH	#	94TG-2/0/15G-2U	NO	NO	32020 SH 43	C07R	CB	36'6"	NV	
GE-HF	A 12HFA151A2H	#	94TGX6/UV4165	NO	NO	32020 SH. 61	C05R	CB	36'6"		
		#	HS-100-10			32020 SH 61, 39107 SH 12	C04	CB	36'6"	NV	
			HS4223A			32020 SH 61	C70A	AB	36'6"	NV	
		#	HS4224			32020 SH, 61	C05	CB	36'6"	NV	
		#	TS-8/15G-2U			32020 SH. 43	C07R	CB	36'6"	NV	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System Equipm		A MA 4000			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 62 DATE 12/12/ REV. 0		
Rev.Re	lay Mfg.&Ty	pe Relay Model No.		Contact	Y/N	and the second second second	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
GE	HFA	12HFA151A2H	#	1X/UV4165	NO	NO	32020 SH. 61	C05R	CB	36'6"	
GE-	HGA	12HGA11J52G	#	63X-1/4224	NO	NO	32020 SH. 61	C05R	CB	36'6"	
1		SB SWITCH	#	94TG-1/0/15G-2U	NO	NO	32020 SH 43	C07R	CB	36'6"	NV
1		SB SWITCH	#	94TG-2/0/15G-2U	NO	NO	32020 SH 43	C07R	CB	36'6"	NV
GE-	HFA	12HFA151A2H	#	94TGX6/UV4165	NO	NO	32020 SH 61	C05R	CB	36'6"	
			#	HS-100-10			32020 SH 61, 39107 SH 12	C04	CB	36'6"	NV
			#	HS4224			32020 SH 61	C05	CB	36'6"	NV
				HS4224A			32020 SH 61	C70B	AB	36'6"	NV
			#	TS-8/15G-2U			32020 SH 43	C07R	CB	36'6"	NV

unerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
- SWGR Screening based on EPRI-7148-SL conent not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
ctive action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
ator action. ntial Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-201		USI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2		PAGE DATE REV. 0	12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C			32020 SH 8	B5202	AB	38'6"	6. S. S. S.
	42/0			32020 SH. 8	B5202	AB	38'6"	
	HS4191A			32020 SH 8	C05	CB	36'6"	NV
	HS4191B			32020 SH 8	C21	AB	38'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-202		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 64 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C			32020 SH. 7	B6202	AB	36'6"	
	42/0			32020 SH 7	B6202	AB	36'6"	CA
	HS4189A			32020 SH 7	C05	CB	36'6"	NV
	HS4189B			32020 SH 7	C21	AB	38'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Data:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-220A		A-46 RELAY SCREENING AND MILLSTONE PO DOCUMENT NO. MP2-RELAY.RI ENERG	PAGE 65 DATE 12/12/9 REV. 0			95	
Rev. Relay Mfg.& Type Relay Model No.	Contact		NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	43X		32020 SH. 14	C06X	CB	36'6"	CA
	CIAS-K503A		39047 SH 9	RC02B	СВ	36'6"	CA
	HS4246		32020 SH 14	C05	CB	36'6"	NV
	HS4246A	na na matana ana mana anto dan dan dan dari dan dan dari	32020 SH 14	C70A	AB	36'6"	NV
	RIS4262		32020 SH 14	RC14A	CB	36'6"	CA
	and the second se			and the second	and the second		

 t vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
S - SWGR Screening based on EPRI-7148-SL mponent not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	REV. 1	Prepared by:	PC	Date:	12/12/95
erator action. sential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-220B	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 66 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*		
	43X		32020 SH. 15	CO6X	CB	36'6"	CA		
	CIAS-K603A		39047 SH. 13	RC02C	CB	36'6"	CA		
	HS4248		32020 SH 15	C05	CB	36'6"	NV		
	HS4248A		32020 SH. 15	C70B	AB	36'6"	NV		
	RIS4262		32020 SH 15	RC14B	CB	36'6"	CA		

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0	Prepared by:	DJR	_ Date: _	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.			JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	C8	_ Date:	12/12/95

System: MS Equipment ID No. : 2-MS-289			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				DATE REV. 0			
Rev. Relay Mfg.&	Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
GE-HGA	12HGA11J52G	#	20X1	NO	NO	32020 SH. 47	C06R	CB	36'6"	
	and the second		HS4213/C			32020 SH 47	C07	CB	36'6"	NV
			HS4213/0			32020 SH. 47	C07	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-294			USI A-42 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 68 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.8	Type Relay Model No.		Contact	Y/N	and the second second second	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HGA	12HGA11J52G	#	20X1	NO	NO	32020 SH 48	C06R	CB	36'6"	
			HS4219/C			32020 SH 48	C07	CB	36'6"	NV
			HS4219/0			32020 SH 48	C07	CB	36'6"	NV

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	ystem: MS quipment ID No. : 2-MS-64A (Z1)				USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 69 DATE 12/12/95 REV. 0		
Rev	Relay Mfg.&T)	ype Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1	GE-HFA	12HFA151A2H	#	3-1	NO	NO	32020 SH 18	C05R	CB	36'6"	CA
+	GE-HFA	12HFA151A2H	#	3-2	NO	NO	32020 SH 18	C05R	CB	36'6"	CA
1	GE-HFA	12HFA51A42H42		43X	NO	NO	32020 SH 18	C06X	CB	36'6"	CA
-				HS4217A			32020 SH 18	C05	CB	36'6"	NV
				HS4217C			32020 SH 18	C70A	AB	36'6"	NV
				HS4217T3			32020 SH 18	C05R	CB	36'6"	NV
			#	MSI-K525A			39047 SH 10	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

	ystem: MS quipment ID No. : 2-MS-64A (Z2)			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0			
Re	v.Relay Mfg.&	Type Relay Model No.		Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
1	GE-HFA	12HFA151A2H	#	3-1	NO	NO	32020 SH 19	C05R	CB	36'6"	CA
1	GE-HFA	12HFA151A2H	#	3-2	NO	NO	32020 SH 19	C05R	CB	36'6"	CA
1	GE-HFA	12HFA51A42H42		43X	NO	NO	32020 SH 19	C06X	CB	36'6"	ĊĂ
-				HS4217B			32020 SH 19	C05	CB	36'6"	NV
				HS4217D			32020 SH 19	C70B	AB	36'6"	NV
-			#	MSI-K525A			39047 SH 10	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

	ystem: MS quipment ID No. : 2-MS-64B (Z1)			ID No. : 2-MS-64B (Z1) ID No. : 2-MS-64B (Z1) DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 71 DATE 12/12/95 REV. 0		
Re	v. Relay Mfg.8	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
1	GE-HFA	12HFA151A2H	3-1 "AAD"	NO	NO	32020 SH 21	C05R	CB	36'6"	CA
1	GE-HFA	12HFA151A2H	3-2 "AAC"	NO	NO	32020 SH 21	C05R	CB	36'6"	CA
1	GE-HFA	12HFA51A42H42	43X	NO	NO	32020 SH, 21	C06X	CB	36'6"	CA
-			HS4221B			32020 SH, 21	C05	CB	36'6"	NV
			HS4221C			32020 SH 21	C70A	AB	36'6"	NV
			MSI-K625A			39047 SH 14	RC02B	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGI	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

stem: MS sipment ID No.	: 2-MS-64B (Z2)		USI A-46 RELAY SCREENING AND EVALUATION TABULATION PAGE MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		DATE	12/12/95			
Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HFA	12HFA151A2H	3-1 "AW"	NO	NO	32020 SH 20	C05R	CB	36'6"	CA
GE-HFA	12HFA151A2H	3-2 "AV"	NO	NO	32020 SH 20	C05R	CB	36'6"	CA
GE-HFA	12HFA51A42H42	43X	NO	NO	32020 SH 20	CO6X	CB	36'6"	CA
		HS4221A			32020 SH 20	C05	CB	36'6"	NV
		HS4221D			32020 SH 20	C70B	AB	36'6"	NV
		HS4221T3			32020 SH 20	C05R	CB	36'6"	NV
		MSI-2	national approximation and according to Super-		32020 SH.20	RC02C	CB	36'6"	CA
	Alegan States Aleg Alegan States Alegan Stat	Amplement ID No.: 2-MS-64B (Z2) Relay Mfg.&Type Relay Model No. GE-HFA 12HFA151A2H GE-HFA 12HFA151A2H	Appendix ID No. :2-MS-64B (Z2)C.Relay Mfg.&Type Relay Model No.ContactGE-HFA12HFA151A2H3-1 "AW"GE-HFA12HFA151A2H3-2 "AV"GE-HFA12HFA51A42H4243XHS4221AHS4221DHS4221T3	MILLSTONE F DOCUMENT NO. MP2-RELAY. ENERGY A.Relay Mfg.&Type Relay Model No. Contact Y/N GE-HFA 12HFA151A2H 3-1 "AW" NO GE-HFA 12HFA151A2H 3-2 "AV" NO GE-HFA 12HFA51A42H42 43X NO HS4221D HS4221T3	MILLSTONE POINT UNIT DOCUMENT NO. MP2-RELAY.RPT - ASS ENERG ENERG ENERG ENERG ENERG ENERG ENERG ENERG ENERG ENERG ENERG NO NO GE-HFA 12HFA151A2H 3-1 "AW" NO NO GE-HFA 12HFA151A2H 3-2 "AV" NO NO GE-HFA 12HFA51A42H42 43X NO NO HS4221D HS4221T3	Millistone Point UNIT 2 Document No. MP2-Relay.RPT - Associated Relays Relay Mfg.&Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) GE-HFA 12HFA151A2H 3-1 "AW" NO NO 32020 SH 20 GE-HFA 12HFA151A2H 3-2 "AV" NO NO 32020 SH 20 GE-HFA 12HFA151A2H42 43X NO NO 32020 SH 20 GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 HS4221A HS4221D 32020 SH 20 32020 SH 20 HS4221T3 32020 SH 20 32020 SH 20	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG Relay Mfg.&Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) Panel GE-HFA 12HFA151A2H 3-1 "AW" NO NO 32020 SH 20 C05R GE-HFA 12HFA151A2H 3-2 "AV" NO NO 32020 SH 20 C05R GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C06X GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C05R GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C05K HS4221D HS4221D 32020 SH 20 C05R 32020 SH 20 C05R HS4221T3 194221T3 32020 SH 20 C05R 32020 SH 20 C05R	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS DATE REV. 0 ARelay Mfg.&Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) Panel Bldg. GE-HFA 12HFA151A2H 3-1 "AW" NO NO 32020 SH 20 C05R CB GE-HFA 12HFA151A2H 3-2 "AV" NO NO 32020 SH 20 C05R CB GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C06X CB GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C05R CB GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C06X CB GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C06X CB GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C05X CB HS4221D HS4221T3 32020 SH 20 C05R CB AB HS4221T3 32020 SH 20 C05R CB	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS DATE REV. 0 12/12/95 ARelay Mfg.&Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) Panel Bldg. Elev. GE-HFA 12HFA151A2H 3-1 "AW" NO NO 32020 SH 20 C05R CB 36'6" GE-HFA 12HFA151A2H 3-2 "AV" NO NO 32020 SH 20 C05R CB 36'6" GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C06X CB 36'6" GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C05K CB 36'6" GE-HFA 12HFA51A42H42 43X NO NO 32020 SH 20 C06X CB 36'6" HS4221D 32020 SH 20 C05 CB 36'6" HS4221T3 32020 SH 20 C05R CB 36'6" HS4221T3 32020 SH 20 C05R CB 36'6"

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-65A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 73 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C	32020 SH. 1	B5207	AB	38'6"	CA
	42/0	32020 SH. 1	B5207	AB	38'6"	
	43X	32020 SH 1	C06X	CB	36'6"	CA
	HS4218	32020 SH. 1	C05	CB	36'6"	NV
	MSI-K526A	39047 SH. 10	RC02B	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : 2-MS-65B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 74 DATE 12/12/95 REV: 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C	32020 SH. 2	B6208	AB	36'6"	CA
	42/0	32020 SH 2	B6208	AB	36'6"	
	43X	32020 SH 2	C06X	CB	36'6"	CA
	HS4222	32020 SH 2	C05	CB	36'6"	NV
	MSI-K626A	39047 SH 14	RC02C	CB	36'6"	CA

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-13.1A		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 75 DATE 12/1 REV. 0			12/95	
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *	
1		33/BO/ZS6050			32015 SH. 10	LOCAL	AB	-45'6"	NV	
GE-HFA	12HFA51A42H42	43X			32015 SH 10	C06X	CB	36'6"	CA	
		HS6050			32015 SH. 10	C06	CB	36'6"	NV	
		# RELAY SRAS (Note 8)							NA	
		SRAS/K511A	NO	NO/NC	39047 SH. 10	RC02B	ĊB	36'6"		

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBC(Equipment ID No	2-RB-13.1B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION PAGE MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RP7 - ASSOCIATED RELAYS ENERG		12/12/95				
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1		33/BO/ZS6055			32015 SH. 11	LOCAL	AB	-45'6"	NV
GE-HFA	12HFA51A42H42	43X			32015 SH. 11	C06X	CB	36'6"	CA
		HS6055			32015 SH 11	C06	CB	36'6"	NV
		# RELAY SRAS (Note 8)							NA
		SRAS/K611A	NO	NO	39047 SH 14	RC02C	CB	36'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-211A		USI A-45 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY RPT - ASSOCIATED RELAYS ENERG			PAGE 77 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.& Type Relay Model No.	Contact	Yini	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS6002			32015 SH 14	C06	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	_ Date:	12/12/95

System: RBCCW Equipment ID No.: 2-RB-211B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO	D/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	HS6003		32015 SH 15	C07R	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-211C	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		2		PAGE DATE REV. 0	79 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6004			32015 SH 35	C07R	CB	36'6"	NV

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System. Rooon		JSI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	80 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	and the second second second	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*	
	HS6005			32015 SH. 41	C07R	CB	36'6"	NV	

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
and the second sec	GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by	JJB	Date:	12/12/95
NA CR	Component not affected by relays. Corrective action required.	REV 1 Prepared by:		Date:	12/12/95
OA	- Operator action.				
Blank	- Essential Contact.	REV. 1 Reviewed by	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-211E		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0	81 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawing	gs(s) Panel	Bldg.	Elev.	SAT.*
	HS6006	32015 SH 40	C07R	CB	36'6"	NV

	erable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: _	DJR	Date:	12/12/95
	SWGR Screening based on EPRI-7148-SL ent not affected by relays.	REV. 0	Reviewed by: _	JJB	Date:	12/12/95
	ve action required.	REV. 1	Prepared by: _	PC	Date:	12/12/95
OA - Operato Blank - Essentia		REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-211F		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		2		PAGE DATE REV. 0	82 12/12/95	•
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	HS6007			32015 SH. 42	C07R	СВ	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-240		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	83 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6118			32015 SH 19	C07R	CB	36'6"	NV

t vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
S - SWGR Screening based on EPRI-7148-SL mponent not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
rrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
erator action. sential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.1A	pment ID No. : 2-RB-28.1A DOCUMENT NO		SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 D. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	84 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6072			32015 SH. 26	CC1	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.1B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE 85 DATE 12/12/95 REV. 0	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6073			32015 SH 27	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

Equipment ID No. : 2-RB-28.1C DOCUMENT		MILLSTONE I DOCUMENT NO. MP2-RELAY	AY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				86 12/12/95		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*	
	HS6075			32015 SH 28	C01	CB	36'6"	NV	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.1D	ment ID No. : 2-RB-28.1D DOCUMENT NO. MP2-REI ENI		OINT UNIT	2		PAGE DATE REV. 0	87 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	HS6077			32015 SH. 29	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.2A		USI A-46 RELAY SCREENING A MILLSTONE DOCUMENT NO. MP2-RELAY ENERC	POINT UNIT	2		PAGE DATE REV. 0	88 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6079			32015 SH 30	C01	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: _	DJR	Date:	12/12/95
SWG	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0	Reviewed by: _	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.2B		USI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY. ENERG	RPT - ASS	2		PAGE DATE REV. 0	89 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NOINC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6083			32015 SH. 32	C01	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.2C		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 L'OCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	90 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6087			32015 SH. 34	C01	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	_ Date: _	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.2D		USI A-46 RELAY SCREENING A MILLSTONE F DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2		PAGE DATE REV. 0	91 12/12/95)	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6091			32015 SH 36	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE 92 DATE 12/12/95 REV. 0		
Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *	
33/BO/ZS6080			32015 SH. 31	LOCAL	EB	-5'6"	NV	
43X	NO	NO	32015 SH 31	C01	CB	36'6"	CA	
HS6080			32015 SH. 31	C01	CB	36'6"	NV	
# RELAY CSAS (Note 6)							NA	
# RELAY SIAS (Note 7)							NA	
SIAS/K524B	NO	NO/NC	39047 SH. 10	RC02B	CB	36'6"	CA	
	33/BO/ZS6080 43X HS6080 # RELAY CSAS (Note 6) # RELAY SIAS (Note 7)	Contact Y/N 33/BO/ZS6080 43X 43X NO HS6080 43X # RELAY CSAS (Note 6) 43X # RELAY SIAS (Note 7) 43X	Contact Y/N NO/NC 33/BO/ZS6080 43X NO NO 43X NO NO NO HS6080 43X HO NO # RELAY CSAS (Note 6) 43X HO HO	Contact Y/N NO/NC Ref. Drawings(s) 33/BO/ZS6080 32015 SH. 31 32015 SH. 31 43X NO NO 32015 SH. 31 HS6080 32015 SH. 31 32015 SH. 31 # RELAY CSAS (Note 6) 32015 SH. 31	Contact Y/N NO/NC Ref. Drawings(s) Panel 33/BO/ZS6080 32015 SH 31 LOCAL 43X NO NO 32015 SH 31 C01 HS6080 32015 SH 31 C01 C01 # RELAY CSAS (Note 6) 7 7 7	Contact Y/N NO/NC Ref. Drawings(s) Panel Bidg. 33/BO/ZS6080 32015 SH 31 LOCAL EB 43X NO NO 32015 SH 31 C01 CB HS6080 32015 SH 31 C01 CB # RELAY CSAS (Note 6) 7 7 7	Contact Y/N NO/NC Ref. Drawings(s) Panel Bidg. Elev. 33/BO/ZS6080 32015 SH 31 LOCAL EB -5'6" 43X NO NO 32015 SH 31 C01 CB 36'6" HS6080 32015 SH 31 C01 CB 36'6" # RELAY CSAS (Note 6) 32015 SH 31 C01 CB 36'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.3B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					DATE		
Re	v.Relay Mfg.&	Type Relay Model No.	Contact	ENERG Y/N	and the second states of the s	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1		**	33/BO/ZS6034			32015 SH. 33	LOCAL	EB	-5'6"	NV
1	GE-HGA	12HGA11J52G	43X	NO	NO	32015 SH. 33	C01	CB	36'6"	CA
			HS6084			32015 SH. 33	C01	CB	36'6"	NV
			# RELAY CSAS (Note 6)	and the second second second second second						NA
			# FLAY SIAS (Note 7)							NA
4			SAS/K624B			39047 SH 14	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.3C		ID No.: 2-RB-28.3C DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS DATE REV.			2 00 20 20		MILLSTONE POINT UNIT 2				PAGE DATE REV. 0	94 12/12/95	
Re	v.Relay Mfg	g.&Type Relay Model No.	Contact	Y/N	and the second design of the	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *			
1			33/BO/ZS6088			32015 SH. 35	LOCAL	EB	-5'6"	NV			
1	GE-HGA	12HGA11J52G	43X	NO	NO	32015 SH. 35	C01	CB	36'6"	CA			
			HS6088			32015 SH. 35	C01	CB	36'6"	NV			
			# RELAY CSAS (Note 6)							NA			
			# RELAY SIAS (Note 7)							NA			
1			# SIAS/K524A	NO	NO/NC	39047 SH. 10	RC02B	CB	36'6"	CA			
								00	500	_			

	- Essential Contact.	REV. 1 Reviewed I	by: <u>CB</u>	Date:	12/12/95
CR	- Corrective action required. - Operator action.	REV. 1 Prepared b	by: <u>PC</u>	Date:	12/12/95
SWG NA	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0 Reviewed	by:JJB	Date:	12/12/95
NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared t	by:DJR	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-28.3D			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE DATE REV. 0	E 12/12/95	
Re	v.Relay Mfg.8	Type Relay Model No.	Contact	Y/N	the second se	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
1			33/BO/ZS6092		-15	32015 SH 37	LOCAL	EB	-5'6"	NV
1	GE-HGA	12HGA11J52G	43X	NO	NO	32015 SH. 37	C01	CB	36'6"	CA
-			HS6092			32015 SH 37	C01	CB	36'6"	NV
-			# RELAY CSAS (Note 6)					al de la companya de		NA
			# RELAY SIAS (Note 7)							NA
1			# SIAS/K624A	NO	NO	39047 SH. 14	RC02C	CB	36'6"	CĂ
1			# SIAS/K624A	NO	NO	39047 SH. 14	RC02C	СВ	3	6'6"

NV - Not vulnerab	e (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GR Screening based on EPRI-7148-SL not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective a		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator act Blank - Essential Co		R_V. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-30.1A		USI A-46 RELAY SCREENING AND EVALUATION TABUL/ MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELA ENERG			PAGE DATE REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C		32015 SH 20	B5138	AB	14'6"	
	42/0		32015 SH 20	B5138	AB	14'6"	CA
	HS6096		32015 SH. 20	C06	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-30.1B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C	32015 SH. 21	B6144	AB	14'6"	
	42/0	32015 SH. 21	B6144	AB	14'6"	CA
	HS6095	32015 SH 21	C06	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-37.2A		USI A-46 RELAY SCREENING AND EVALUATION TABULATIO MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	98 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact		IO/NC R	ef. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	42/C		32	2015 SH 24	B5137	AB	14'6"	
	42/0		32	2015 SH 24	B5137	AB	14'6"	CA
	HS6108		32	2015 SH. 24	C06	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated co	intacts or solid state relays)	REV.0	Prepared by:	DJR	Date	12/12/95
SWGR GERS - SWGR Screening based on EPR NA - Component not affected by relays.			Reviewed by:		Date:	12/12/95
CR - Corrective action required.		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-37.2B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	99 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact			Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C			32015 SH. 25	B6146	AB	14'6"	
	42/0			32015 SH. 25	B6146	AB	14'6"	CA
	HS6106			32015 SH 25	C07	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-4.1A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	100 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS6013			32015 SH 16	C07R	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-4.1B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	101 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6014			32015 SH. 17	C07R	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-4.1C		USI A-46 RELAY SCREENING A MILLSTONE F DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2		PAGE DATE REV. 0	162 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	HS6015			32015 SH. 43	C07R	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-4.1D		USI A-46 RELAY SCREENING A MILLSTONE F DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2		PAGE DATE REV. 0	103 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6016			32015 SH. 45	C07R	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-4.1E		USI A-46 RELAY SCREENING A MILLSTONE F DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2		PAGE DATE REV. 0	104 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	HS6017			32015 SH. 44	C07R	CB	36'6"	NV

NV - Not vulner	able (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
	WGR Screening based on EPRI-7148-SL ht not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
	action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator Blank - Essential		REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-4.1F		USI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG	OINT UNIT	2		PAGE DATE REV. 0	105 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	HS6018		6 A. M.	32015 SH 46	C07R	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGI	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.			JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-68.1A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE DATE REV. 0	106 12/12/95	
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1		33/BO/ZS6731		1.1.1	32015 SH. 8	LOCAL	AB	-45'6"	NV
GE-HFA	12HFA51A42H42	43X			32015 SH. 8	C06X	CB	36'6"	CA
		HS6731			32015 SH. 8	C06	CB	36'6"	NV
		# RELAY CSAS (Note 6)							NA
11		# RELAY SIAS (Note 7)							NA
		# SIAS/K524A	NO	NO/NC	39047 SH. 10	RC02B	CB	36'6"	

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RBCCW Equipment ID No. : 2-RB-68.1B				MILL STONE DOINT UNIT 2			DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				
Rev. Relay Mfg.8	Type Relay Model No.	Contact	Y/N		C Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *		
1		33/BO/ZS6735			32015 SH 9	LOCAL	AB	-45'6"	NV		
GE-HFA	12HFA51A42H42	43X			32015 SH. 9	C06X	CB	36'6"	ĊA		
		HS6735			32015 SH. 9	C06	CB	36'6"	NV		
		# RELAY CSAS (Note 6)							NA		
		# RELAY SIAS (Note 7)							NA		
		# SIAS/K624A	NO	NO	39047 SH 14	RC02C	CB	36'6"			
					and the second sector of the second se						

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-RC-402		MILLSTONE P DOCUMENT NO. MP2-RELAY.F	A 46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 OCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 108 DATE 12/12/95 REV. 0			
Rev	v. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
		CR106	42			32007 SH. 23	NPY402	AB	14'6"	1.11.1
1	GE-HGA	12HGA11J52G	63XA	NO	NO	32007 SH. 24	C03R	CB	36'6"	
			HS1402A			32007 SH. 23	C70A	AB	36'6"	NV
			HS1402B			32007 SH 23	C03F	CB	36'6"	NV
	GE-NGV	12NGV13A11A	# K	YES	NC	32007 SH 24, 39069 SH 22	RC05B	CB	36'6"	
			PL-103-18	1		32007 SH. 23, 28500 SH. 75D	RC30A-1	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWG NA	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : 2-RC-403		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 109 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C			32007 SH. 19	B5155	AB	14'6"	
	42/0			32007 SH. 19	B5155	AB	14'6"	
	HS1402			32007 SH. 19	C03	CB	36'6"	NV
	HS1403			32007 SH. 19	C03	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : 2-RC-404				MILLSTONE F DOCUMENT NO. MP2-RELAY.	Y SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 IO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 110 DATE 12/12/95 REV. 0			
Rev.Re	ay Mfg.&7y	pe Relay Model No.	C	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
		CR106	4	12			32007 SH. 24	NPY404	AB	14'6"	
1 GE-	HFA	12HFA51A42H33	6	S3XB	10	NO	32007 SH. 24	C03R	CB	36'6"	
			H	1S1404A			32007 SH. 24	C70B	AB	36'6"	NV
			H	1S1404B			32007 SH 24	C03F	CB	36'6"	NV
GE	NGV	12NGV13A11A	# K	<	YES	NC	32007 SH 24, 39069 SH 22	RC05B	CB	36'6"	
			F	PL-103B			32007 SH 24, 28500 SH 99D	RC30B-1	CB	36'6"	NV

9.1

÷

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : 2-RC-405		USI A 46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2- 'ELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 111 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact			Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C			32007 SH. 20	B6120	AB	14'6"	
	42/0			32007 SH. 20	B6120	AB	14'6"	
	HS1404			32007 SH 20	C03	CB	36'6"	NV
	HS1405			32007 SH 20	C03	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : 2-RC-406		USI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2			112 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS406			32007 SH 25	C03	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by.	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SI Equipment ID No. : 2-SI-614		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE 113 DATE 12/12/95 REV. 0		
tev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.		SAT.*
		42/C			32008 SH. 12	B5111	AB	14'6"	CA
		42/0			32008 SH 12	B5111	AB	14'6"	CA
GE-HFA	12HFA151A9H	43X			32008 SH 12	C01	CB	36'6"	CA
		# 63X-1/P-103-1			32008 SH. 12	C03R	CB	36'6"	CA
		H\$3614			32008 SH. 12	C01	CB	36'6"	NV
		HS3614-1			32008 SH 12	C01	CB	36'6"	NV
		# RELAY SIAS (Note 7)							NA
		SIAS1/K523B	NO	NO/NC	39C47 SH. 10	RC02B	СВ	36'6"	ĊA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG	PAGE 114 DATE 12/12/ REV. 0			95	
Contact		Pane!	Bldg.	Elev.	SAT. *	
42/C	32008 SH 21	B5118	AB	14'6"	-	
42/0	32008 SH. 21	B5118	AB	14'6"		
43X	32008 SH 21	C01R	CB	36'6"	CA	
HS3615	32008 SH 21	C01	CB	36'6"	NV	
SIAS	32008 SH 21	RC02B	CB	36'6"	CA	
	42/C 42/O 43X HS3615	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG 2006 SH 21 Contact Y/N NO/NC Ref. Drawings(s) 42/C 32006 SH 21 32008 SH 21 43X 32008 SH 21 32008 SH 21 HS3615 32008 SH 21 32008 SH 21	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYSENERG ENERGContactY/NNO/NCRef. Drawings(s)Pane!42/C32008 SH 21B511842/G32008 SH 21B511843X32008 SH 21C01RHS361532008 SH 21C01	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYSDATE REV. 0ENERG ENERGBidg.42/C32006 SH 21B5118AB42/G32008 SH 21B5118AB42/G32008 SH 21B5118AB42/G32008 SH 21C01RCBHS361532008 SH 21C01CB	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS DATE REV. 0 12/12/95 ENERG 2008 SH 21 Pane! Bldg. Elev. 42/C 32008 SH 21 B5118 AB 14'6" 42/G 32008 SH 21 B5118 AB 14'6" 43X 32008 SH 21 C01R CB 36'6" HS3615 32008 SH 21 C01 CB 36'6"	

NV - Not vulnerable (mechanically actuated contacts or	solid state relays). REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SI NA - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
C - Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blanz - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: SI Equipment ID No.	: 2-SI-624		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 115 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drav	wings(s) Panel	Bidg.	Elev.	SAT.*
		42/C		32008 SH 3	8 B5112	AB	14'6"	CA
		42/0		32008 SH 3	8 B5112	AB	14'6"	ĊA
GE-HFA	12HFA151A9H	43X		32008 SH 3	8 C01	CB	36'6"	CA
		# 63X-1/P-103-1		32008 SH. 3	8 C03R	CB	36'6"	CA
		HS3624		32008 SH 3	8 C01	CB	36'6"	NV
		HS3624-1		32008 SH 3	8 C01	CB	36'6"	NV
		# RELAY SIAS (Note 7)						NA
1		SIAS1/K523D	NO	NO/NC 32008 SH 3	8, 39047 SH. 10 RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: LPSI Equipment ID No. : 2-SI-625		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 116 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	42/C	32008 SH 22	B5119	AB	14'6"	
	42/0	32008 SH. 22	B5119	AB	14'6"	
	43X	32008 SH 22	C01R	CB	36'6"	ĊA
	HS3625	32008 SH. 22	C01	CB	36'6"	NV
	SIAS1	32008 SH. 22	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SI Equipment ID No. : 2-SI-634 Rev. Relay Mfg.&Type Relay Model No.		2-SI-634 USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 117 DATE 12/12/9 REV. 0		
				Panel	Bidg.	Elev.	SAT.*
		42/C	32008 SH 39	B6109	AB	14'6"	CA
		42/0	32008 SH 39	B6109	AB	14'6"	CA
GE-HFA	12HFA151A9H	43X	32008 SH 39	C01	CB	36'6"	CA
GE-HGA	12HGA11J70G	# 63X-1/P-103	32008 SH 39	C03R	CB	36'6"	CA
		HS3634	32008 SH. 39	C01	CB	36'6"	NV
		HS3634-1	32008 SH 39	C01	CB	36'6"	NV
		# RELAY SIAS (Note 7)					NA
4		SIAS2/K623B	39047 SH 14, 32008 SH 39	RC02C	CB	36'6"	CA

ot vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
RS - SWGR Screening based on EPRI-7148-SL omponent not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
perator action. ssential Contact.	REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

System: LPSI Equipment ID No. : 2-SI-635		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 118 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C	32008 SH 23	B6116	AB	14'6"	
	42/0	32008 SH. 23	B6116	AB	14'6"	
	43X	32008 SH. 23	C01R	CB	36'6"	CA
	H\$3635	32008 SH. 23	C01	CB	36'6"	NV
	SIAS2	32008 SH 23	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Jate:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: SI Equipment ID No. : 2-SI-644			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 119 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.		Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*	
		42/C	32008 SH 40	B6119	AB	14'6"	CA	
		42/0	32008 SH. 40	B6110	AB	14'6"	CA	
GE-HFA	12HFA151A9H	43X	32008 SH 40	C01	CB	36'6"	CA	
GE-HGA	12HGA11J70G	# 63X-1/P-103	32008 SH 40	C03R	СВ	36'6"	CA	
		HS3644	32008 SH 40	C01	CB	36'6"	NV	
		HS3644-1	32008 SH 40	C01	CB	36'6"	NV	
		# RELAY SIAS (Note 7)					NA	
		SIAS/K623C	32006 SH. 40, 39047 SH. 14	RC02C	CB	36'6"	CA	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	 GERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays. 	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: LPSI Equipment ID No. : 2-SI-645	BULLSTONE DOINT HNIT 2			PAGE DATE REV. 0	120 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42/C	32008 SH 24	B6111	AB	14'6"	
	42/0	32008 SH 24	B6111	AB	14'6"	
	43X	32008 SH 24	C01R	CB	36'6"	CA
	HS3645	32008 SH 24	C01	CB	36'6"	NV
	SIAS2	32008 SH 24	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SI Equipment ID No. :	2-SI-651		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	121 12/12/95	
ev. Relay Mfg.&1	Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
		42/C		32008 SH. 11	B5110	AB	14'6"	CA
		42/0		32008 SH 11	B5110	AB	14'6"	100
GE-HGA	12HGA11J70G	# 63X-1/P-103-	Г	32008 SH. 11	C03R	CB	36'6"	CA
		HS3651		32008 SH 11	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: SI Equipment iD No. : 2-SI-652		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			DAGE DATE REV. 0	122 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C			32008 SH. 33	B6119	AB	14'6"	CA
	42/0			32008 SH 33	B6119	AB	14'6"	-
	63X/P-103			32008 SH 33	C03R	CB	36'6"	CA
	HS3652			32008 SH. 33	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: LPSI Equipment ID No. : 2-SI-657		USI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	2		PAGE DATE REV. 0	123 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS3657			32008 SH 60	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HPSI Equipment ID No. : 2-SI-662	USI A-46 RELAY SCREENING AND EV/ MILLSTONE POINT L DOCUMENT NO. MP2-RELAY.RPT - A		NT UNIT 2		PAGE DATE REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N N	O/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	42/C		32008 SH 10	B6118	AB	14'6"	
	42/0		32008 SH 10	B6118	AB	14'6"	
	HS3662		32008 SH. 10	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: HPSI Equipment ID No. : 2-SI-663	millstone point unit 2 mt ID No. : 2-SI-663 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS			PAGE DATE REV. 0	125 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42/C	32008 SH. 35	B5109	AB	14'6"	CA
	42/0	32008 SH. 35	B5109	AB	14'6"	
	HS3663	32008 SH. 35	C01	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-102		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 126 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	# 43Y/1	32023 SH 47	C80	CB	36'6"	CA
	# 43Y/2	32023 SH 47	C80	CB	36'6"	CA
	# HS8846	32023 SH 47	C80	CB	36'6"	NV
	HS8847	32023 SH. 47	C80	CB	36'6"	NV
	HS8848	32023 SH. 47	C80	CB	36'6"	NV
	HS8850	32023 SH 47	C80	CB	36'6"	NV
	SIAS	32023 SH 47	C80	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-104		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 127 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*	
	# 43Y/1	32023 SH 48	C80	CB	36'6"	CA	
	# 43Y/2	32023 SH, 48	C80	CB	36'6"	CA	
	# HS8853	32023 SH 48	C80	CB	36'6"	NV	
	# HS8854	32023 SH. 48	C80	CB	36'6"	NV	
	# HS8855	32023 SH. 48	C80	CB	36'6"	NV	
	HS8856	32023 SH 48	C80	CB	36'6"	NV	
	SIAS	32023 SH 48	C80	CB	36'6"	CA	

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-178A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	128 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
1	33/AC		32023 SH 67	LOCAL	TB	31'6"	NV
1	33/BO/Z\$6925		32023 SH 67	LOCAL	TB	31'5	NV
	HS6925		32023 SH 67	C80	CB	36'6"	NV
	PS6925		32023 SH 67	LOCAL	TB	31'6"	CA
	the set of the test of the set of	and the second					

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-178B	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	129 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
1	33/AC/ZS6927		32023 SH 69	LOCAL	ТВ	54'6"	NV
1	33/BO/ZS6927		32023 SH. 69	LOCAL	TB	54'6"	NV
	HS6927		32023 SH 69	C80	CB	36'6"	NV
	PS6927		32023 SH 69	LOCAL	TB	54'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-178C	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 130 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	33/AC/ZS6926		32023 SH 68	LOCAL	TB	54'6"	NV
1	33/BO/Z\$6926		32023 SH 68	LOCAL	TB	54'6"	NV
	HS6926		32023 SH 68	C80	CB	36'6"	NV
	PS6926		32023 SH 68	LOCAL	TB	54'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: SW Equipment ID No.: 2-SW-231A		USI A-45 RELAY SCREENING AND EVALUATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATE ENERG			DATE REV. 0	131 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. I	Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS6341	32013	SH 21	C06	СВ	36'6"	NV
	# HSR(DG-A)	32013	SH. 21	T040	AB	14'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-231B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 132 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO	D/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS6342		32013 SH 22	C06	CB	36'6"	NV
	# HSR(DG-B)		32013 SH. 22	T041	AB	14'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No.: 2-SW-3.1A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	133 12/12/95		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	HS6399			32013 SH. 10	C06	CB	36'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-3.1B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0	134 12/12/95	5		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS6400			32013 SH. 18	C06	CB	36'6"	NV

NV -	Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
	ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
	Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	Operator action. Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-3.2A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 135 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	43X			32013 SH. 20	C06X	CB	36'6"	CA
	HS6439			32013 SH. 20	C06	CB	36'6"	NV
	SIAS1			32013 SH. 20	RC02B	CB	36'6"	ĊA

NV - Not vulnerable (mechanically ac	tuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening base NA - Component not affected by rela		REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-3.2B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 136 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	43X			32013 SH 19	C06X	CB	36'6"	CA
	HS6438			32013 SH 19	C06	CB	36'6"	NV
	SIAS2			32013 SH. 19	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid	d state relays). REV. 0 Prepare	ed by:DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Review	ved by:JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepare	ed by: PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Review	red by: <u>CB</u>	Date:	12/12/95

0 014/ 0 4 4			SI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS			PAGE 137 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.8	Type Relay Model No.	Contact	ENERG Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT
GE-HGA	12HGA111J2	43Y		32013 SH. 40	C06	CB	36'6"	CA
		# HS6307A/6308		32013 SH. 40	C06	CB	36'6"	NV
		SIAS/K523A		39047 SH 10	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-8.1B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE 138 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HGA	12HGA111J2	43Y	320 (3 SH 41	C06	CB	36'6"	Statistics of the owner owner owner owner owner owner owner
GE-HGA	12HGA111J2	43Y	32013 SH 43	C07R	CB	36'6"	CA
		# HS6306/6307B	32013 SH 43	C07R	CB	36'6"	NV
		# HS6307A/6308	32013 SH 41	C06	CB	36'6"	NV
		SIAS/K523D	39047 SH 10	RC02B	CB	36'6"	CA
		SIAS/K623D	39047 SH 14	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-8.1C			MILLSTONE F T NO. MP2-RELAY.	RPT - ASSOCIATED RELAYS		PAGE DATE REV. 0	139 12/12/95	
Rev. Relay Mfg.&	Type Relay Model No.	Contact	ENERG Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HGA	12HGA111J2	43Y		32013 SH. 42	C07R	CB	36'6"	CA
		# HS6306/6307B		32013 SH. 42	C07R	CB	36'6"	NV
and the second		SIAS/K623A	χ.	39047 SH 14	RC02C	СВ	36'6"	ĊA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-89A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					PAGE DATE REV. 0	140 12/12/95	
Rev. Relay Mfg. 1 Type Relay Model No.	Contact	ENERC Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1	33/BC (Note 11)			32013 SH. 21	LOCAL	AB	14'6"	NV
	HS6389			32013 SH. 21	C06	CB	36'6"	NV
	# HSR(DG-A) (Note 11)			32013 SH. 21	T040	AB	14'6"	CA

NV - Not vulnerable (mechanically actuated contact	ts or solid state relays). REV.	0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-71 NA - Component not affected by relays.	48-SL REV.	0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV.	1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV.	1 Reviewed by:	СВ	Date:	12/12/95

2 614/ 800		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	141 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	and the second	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	33/BC (Note 12)			32013 SH. 22	LOCAL	AB	14'6"	NV
	HS6397			32013 SH 22	C06	CB	36'6"	NV
	# HSR(DG-B) (Note 12)			32013 SH 22	T041	AB	14'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV 1 Prepared by:		Date:	12/12/95
OA - Operator action.			Date	12/12/33
Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-90A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	2	NO	NO	32013 SH. 36	C58A	CW	14'6"	CA
	42	and a subscription of the second s		32013 SH. 36	C58A	CW	14'6"	CA
	49			32013 SH. 36	C58A	CW	14'6"	CA
	H\$S\$1			32013 SH 36	C58A	CW	14'6"	NV
the second s	PB1(DG-A)			32013 SH 33	C58A	CW	14'6"	NV
1	PDC6475			32013 SH 36	LOCAL	ĊW	14'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state rela	iys). REV. 0	Prepared by:	DJR	_ Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: SW U Equipment ID No. : 2-SW-90B		SI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				PAGE DATE REV. 0	5	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N		Ref. Drawings(s)	Panel	Bidg.		SAT.*
1	2	NO	NO	32013 SH. 38	C58B	CW	14'6"	CA
	42			32013 SH. 36	C58B	CW	14'6"	CA
	42/B5154			32013 SH 39	B5154	AB	14'6"	CA
	42/B6136			32013 SH 39	B6136	AB	14'6"	CA
	49			32013 SH 38	C58B	CW	14'6"	CA
	# 52STA/24C-2T-2			32013 SH 39	A305	TB	31'6"	NV
	# 52STA/24D-2T-2			32013 SH 39	A408	TB	56'6"	NV
	HSSS2			32013 SH. 38	C58B	CW	14'6"	NV
	NL1B1			32013 SH. 39	B5154	AB	14'6"	NV
	NL1B2			32013 SH 39	B6136	AB	14'6"	NV
	PB2			32013 SH. 38	C58B	CW	14'6"	NV
1	PDC6481			32013 SH. 38	PDC6481	ĊW	14'6"	CA
	TRIP PB			32013 SH 39	NL1B1A	CW	14'6"	NV
	TRIP PB			32013 SH 39	NL1B2A	CW	14'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-90C		USI A-46 RELAY SCREENING AND EVALUATION TABULATION SAILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	PAGE 144 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *	
1	2	NO	NO	32013 SH 37	C58C	CW	14'6"	CA	
	42			32013 SH. 37	C58C	CW	14'6"	CA	
	49			32013 SH. 37	C58C	CW	14'6"	CA	
	HSSS3			32013 SH 37	C58C	CW	14'6"	NV	
	PB3(DG-A)			32013 SH. 37	C58C	CW	14'6"	NV	
1	PDC6488			32013 SH. 37	PDC6488	CW	14'6"	CA	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
SWGR NA	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-97A			MILLSTONE	ND EVALUATION TABULATION POINT UNIT 2 RPT - ASSOCIATED RELAYS		PAGE DATE REV. 0	145 12/12/95	
	.&Type Relay Model No.	Contact	ENERO Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1		33/AC/ZS6489		32013 SH. 17	2-SW-97B	CW	14'6"	NV
TEL CLASS J	33X/HV6489		32013 SH. 16	C06R	CB	36'6"	CA	
		HS6482		32013 SH 16	C06	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: SW Equipment ID No. : 2-SW-97B			LAY SCREENING A MILLSTONE F T NO. MP2-RELAY.	POINT UNIT	The second		PAGE DATE REV. 0	146 12/12/95	
	g.&Type Relay Model No.	Contact	ENERG Y/N	and the second second	Ref. Drawings(s)	Panel	Bldg.		SAT.*
1		33/AC/ZS6482			32013 SH 16	2-SW-97A	CW	14'6"	
TEL	CLASS J	33X/HV6482			32013 SH. 17	C06R	ĊB	36'6"	CA
		HS6489			32013 SH. 17	C06R	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : A302		MILLSTONE	AND EVALUATION TABULATION POINT UNIT 2 (.RPT - ASSOCIATED RELAYS		PAGE DATE REV. 0	147 12/12/95	
		ENER	G		NEV. U		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	# 25CS		32002 SH. 1	C08	CB	36'6"	NV
	27/1-X1/24C(Note 17)		32002 SH. 1	A311A	TB	31'6"	CA
	27/1-X2/24C(Note 17)		32002 SH 1	A311A	TB	31'6"	ČA
	43		32002 SH 1	A302	TB	31'6"	NV
	# 51(Note 17)		32002 SH_1	A302	TB	31'6"	CA
	# 51GS(Note 17)		32002 SH 1	A302	TB	31'6"	CA
	52b		32002 SH. 1	A302	TB	31'6"	CA
	52HH		32002 SH. 1	A302	TB	31'6"	NV
	# 52STA/24C-1T-2		32002 SH 1	A304	TB	31'6"	NV
	# 52STA/2S3-24A-2		32002 SH. 1	A102	TB	31'6"	NV
1	52Y		30042 SH A	A302	TB	31'6"	SWGR GERS
	62(Note 17)		32002 SH. 1	A302	TB	31'6"	CA
	83X/J13		32002 SH. 1	A302	TB	31'6"	CA
	83X1/15G-22S	NO	NO 32002 SH 1	C07R	CB	36'6"	
	# 83XT		32002 SH. 1	C08R	CB	36'6"	CA
	83XT2/J13		32002 SH. 1	A302	18	31'6"	CA
	86-1		32002 SH. 1	A304	TB	31'6"	CA
	86-2(Note 17)		32002 SH. 1	A302	TB	31'6"	CA
	86B-1X(Note 17)		32002 SH 1	A302	TB	31'6"	CA
	CS-1		32002 SH. 1	A302	ŤB	31'6"	NV
	CS-2		32002 SH. 1	C08	CB	36'6"	NV
	K528A(Note 17)		32002 SH 1	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV 1 Reviewed by:	CB	Date:	12/12/95

	stem: ELEC uipment ID No			USI A-46 RELAY SC Mi. DOCUMENT NO. MA	ASTONE	POINT UNI	12		PAGE DATE REV. 0	148 12/12/95	
Re	v.Relay Mfg.8	Type Relay Model No.	Contact		Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	GE-HFA	12HFA151A2H	3		NO	NO	32002 SH. 3	A303	TB	31'6"	SWGR GERS
1	GE-HFA	12HFA151A2H	3		NO	NC	32002 SH. 3	A303	TB	31'6"	CA
1	GE-IAC	12IAC53B104A	50/51A		NO	NO	32002 SH. 3	A303	ГВ	31'6"	
1	GE-IAC	12IAC53B104A	50/51B		NO	NO	32002 SH_ 3	A303	TB	31'6"	
1	GE-IAC	12IAC53B104A	50/51C		NÖ	NO	32002 SH 3	A303	TB	31'6"	
1	L E-PJC	121PJC11AV1A	50GS		NO	NO	32002 SH 3	A303	TB	31'6"	
1			52/HH			NC	32002 SH. 3	A303	37	31'6"	NV
1			52Y		NO	NO/NC	30042 SH A	A303	TB	31'6"	CA
1			CS-1			NC	32002 SH 3	A303	TB	31'6"	NV
1			CS-2			NC	32002 SH 3	C08	CB	36'6"	NV
1			00-2			NO	52002 011 5	000	UB	30.0	_

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : A304	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 149 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	# 51(Note 17)	32002 SH 11	A304	TB	31'6"	CA
	# 51GS(Note 17)	32002 SH 11	A304	TB	31'6"	CA
	52b	32002 SH 11	A305	TB	31'o"	NV
	52HH	32002 SH 11	A304	TB	31'6"	NV
	52HH	32002 SH 11	A305	TB	31'6"	NV
	# 52STA/15G-12U-2	32002 SH 11	A312	TB	31'6"	NV
	# 52STA/21S3-24E-2	2002 SH 11	A505	TB	31'6"	NV
	# 52STA/22S3-24C-2	32002 SH 11	A302	TB	31'6"	NV
	# 52STA/2S3-24A-2	32002 SH.11	A102			NV
	83X	32002 SH.11	A304	TB	31'6"	CA
	# 86-1/22S3-24C-2(Note 17)	32002 SH 11	A302	TB	31'6"	CA
	# 86-2(Note 17)	32002 SH.11	A304	TB	31'6"	CA
	86/2S3-24A-2(Note 17)	32002 SH.11	A102			ĊĂ
	CS-1	32002 SH.11	A304	TB	31'6"	NV
	CC-2	32002 SH 11	C08	CB	36'6"	NV
	UV1C(Note 17)	32002 SH 11	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

USI A-46 RELAY SCREENING AND EVALUATION TABULATION

ENERG

PAGE 150 DATE 12/12/95 REV. 0

n .n

10110101

Equipment ID No. : MOL	05	13	A	*	No.	ID	pment	Equi	
------------------------	----	----	---	---	-----	----	-------	------	--

MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

Rev. Relay Mfg.& Type Relay Mode! No. Y/N Contact NO/NC Ref. Drawings(s) Panel Bldg. Elev. SAT.* 121PJC11AV1A # 50GS 32002 SH 15 GE-P.IC NO NO A505 TB 31'6" GE-IAC 12IAC53A101A # 51A NO NO 32002 SH. 11 A304 TR 31'6" GE-IAC 12IAC53A101A 51A NO NO 32002 SH 13 A305 TB 31'6' GE-IAC 12IAC53A101A # 51A NO 32002 SH 15 NO A505 TB 31'6" 1 GE-IAC 12IAC53A101A # 51B 32002 SH 11 NO NO A304 TB 31'6" GE-IAC 12IAC53A101A 51B NO NO 32002 SH 13 A305 TB 31'6" GE-IAC 12IAC53A101A # 51B NO NO 32002 SH. 15 A505 TB 31'6" GE-IAC 12IAC53A101A 32002 SH 11 # 51C NO NO A304 TB 31'6" GE-IAC 12IAC53A101A 51C NO NO 32002 SH 13 A305 TB 31'6" 1 GE-IAC 12IAC53A101A # 51C NO NO 32002 SH 15 A505 TB 31'6" # 51GS GE-IAC 121AC53A3A NO NO 32002 SH. 11 A304 TB 31'6" GE-IAC 12IAC53A3A **51GS** NO NO 30044 SH 2 A305 TB 31'6" 52/HH 32002 SH 13 A305 TB 31'6" NV # 52STA/15G-12U-2 32002 SH 13 A312 TB 31'6" NV # 52STA/21S3-24E-2 32002 SH 13 A505 TB 31'6" NV # 52STA/22S3-24C-2 32002 SH 13 A302 TB 31'6" NV # 52STA/24C-1T-2 32002 SH 13 A304 TB 31'6" NV # 52STA/24D-2T-2 32002 SH 13 A408 TB 56'6" NV 52Y 30042 SH A A305 TB 31'6" SWGR GERS 1 CLASS J 32002 SH 13 TEL 83X NO NC A305 TB 31'6" SWGR GERS 32002 SH. 13 **GE-HFA** 12HFA151A261 86 NO NO A305 TB 31'6" SWGR GERS 32002 SH 13 GE-HFA HFA51A # 86-1/21S3-24E-2 NO NO A505 TB 31'6" SWGR GERS GE-HFA 12HFA151A2H # 86-1/22S3-24C-2 (Note 13) NO NO 32002 SH 1 A302 TB SWGR GERS 31'6" 86-1/24C-1T-2 12HFA151A26 NO 32002 SH 13 **GE-HFA** NO A304 TB 31'6" SWGR GERS GE-HFA 12HFA151A26 # 86-2 NO NO 32002 SH 11 A304 TB 31'6' GE-HFA HFA51A # 86-2 NO NO 32002 SH 15 A505 TB 31'6' GE-HEA HEA61B 86/15G-12U-2 (Note 14) NO NO 32041 SH 1 A312 TB 31'6" SWGR GERS 1

A "#" indicates that this relay has multiple occurrences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA - Chatter acceptable.

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Da' :	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	_ Date:	12/12/95
NA - Component not affected by relays.	Dranged hu	DC	Dete	10/10/05
CR - Corrective action required. OA - Operator action.	REV. 1 Prepared by:	FU	_ Date:	12/12/95
Blank - Essential Contact.	REV. 1 Reviewed by:	CB	_ Date:	12/12/95

System: ELEC AC Equipment ID No. : A305		MILLSTONE POINT UNIT 2			INF POINT UNIT 2 LAY.RPT - ASSOCIATED RELAYS		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS R		PAGE DATE REV. 0		
Rev. Relay Mfg.8	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *		
GE-HGA	HGA11W	86X	NO	NO	32002 SH. 13	A305	TB	31'6"			
		CS-1			32002 SH. 13	A305	TB	31'6"	NV		
		CS-2			32002 SH. 13	C08	CB	36'6"	NV		
		CS-2/A304			32002 SH 11	A304	TB	31'6"	NV		
		# CS-2/A505			32002 SH. 15	A505	TB	31'6"	NV		

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

Syst	System: ELEC AC Equipment ID No. : A306			USI A-46 RELAY SCREENING A				PAGE 1	152	
Equi				MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				DATE 1 REV. 0	12/12/95	
Rev.	Relay Mfg./	& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1 (GE-HFA	12HFA151A2H	3	NO	NC	32013 SH 5	A306	TB	31'6"	CA
1 (GE-HFA	12HFA151A2H	3	NÔ	NO	32013 SH. 5	A306	TB	31'6"	SWGR GERS
1 (GE-HFA	12HFA151A2H	3	NO	NO	32013 SH 5	A306	TB	31'6"	
1 (GE-HFA	12HFA51A42H42	43X	NO	NC	32013 SH 5	CO6X	CB	36'6"	CA
1			43X	NO	NO	32013 SH 5	C06X	CB	36'6"	CA
1 0	GE-IAC	12IAC66K8A	50/51A	NO	NO	32013 SH 5	A306	TB	31'6"	
1 0	GE-IAC	12IAC66K8A	50/51B	NO	NO	32013 SH 5	A306	TB	31'6"	
1 0	GE-IAC	121AC66K8A	50/51C	NO	NO	32013 SH 5	A306	TB	31'6"	
C	GE-PJC	121PJC11AV1A	50GS	NO	NO	32013 SH. 5	A306	TB	31'6"	
1			52/HH		NC	32013 SH 5	A306	TB	31'6"	NV
1			52Y	NO	NO/NC	30042 SH A	A306	TB	31'6"	CA
1			CS-1		NO	32013 SH 5	A306	TB	31'6"	NV
1			HS6477		NC	32013 SH 5	C06	СВ	36'6"	NV
			# LD SHED/K5	529A NO	NO	39047 SH 11	RC02B	ĊB	36'6"	
			SIAS1/SEQ.1	1/K515C NO	NO	32013 SH. 5, 39047 SH. 9	RC02B	CB	36'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	System: ELEC AC Equipment ID No. : A307		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS						5
			ENERG				REV. 0		
Rev. Relay Mfg	g.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	. SAT.*
1 GE-HFA	12HFA151A2H	3	NO	NC	32012 SH. 11	A307	TB	31'6"	CA
1 GE-HFA	12HFA151A2H	3	NO	NÖ	32012 SH 11	A307	TB	31'6"	SWGR GERS
1 GE-HFA	12HFA151A2H	3	NO	NO	32012 SH 11	A307	TB	31'6"	SWGR GERS
1 GE-IAC	12IAC66K8A	50/51A	NO	NO	30044 SH. 3	A307	TE	31'6"	
1 GE-IAC	12IAC66K8A	50/51B	NÖ	NO	30044 SH 3	A307	TB	31'6"	
1 GE-IAC	12IAC66K8A	50/51C	NO	NO	30044 SH. 3	A307	TB	31'6"	
GE-PJC	121PJC11AV1A	50GS	NO	NO	32012 SH. 11, 30044 SH. 3	A307	TB	31'6"	
		52/HH			32012 SH. 11	A307	TB	31'6"	NV
1		52Y			30042 SH. A	A307	TB	31'6"	SWGR GERS
		# 86Z1A			32012 SH. 11	C05	CB	36'6"	CA
		HS5287A			32012 SH 11	C05	CB	36'6"	NV
		HS5287B			32012 SH. 11	C21	AB	38'6"	NV
		K534I	NO	NO	32012 SH 11	RC02B	ĊB	36'6"	
		K534L	NO	NO	32012 SH 11	RC02B	CB	36'6"	
		TS		111117	32012 SH. 11	A307	TB	31'6"	NV
		UV1C/K529B	B NO	NO	39047 SH 11	RC02B	CB	36'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by	JJB	Date:	12/12/95
CR - Corrective action required.	REV. * Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : A308	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 154 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	. SAT. *
	3			32008 SH 1	A308	TB	31'6"	the second s
	43X			32008 SH 1	C01	CB	36'6"	CA
	50/51			32008 SH 1	A308	TB	31'6"	CA
	50GS			32008 SH 1	A308	TB	31'6"	CA
	52/HH			32008 SH 1	A308	TB	31'6"	NV
	52X/22S3-24C-2			32008 SH 1	A302	TB	31'6"	CA
1	52Y			30041 SH A	A308	TB	31'6"	SWGR GERS
	HS3014			32008 SH 1	C01	<i>b_</i>	36'6"	NV
	# RELAY CSAS (Note 6)							NA
	# RELAY SIAS (Note 7)							NA
	SIAS1/K514A	NO	NO	32008 SH 1	RC02B	СВ	36'6"	
	TS			32008 SH 1	A308	TB	31'6"	NV
	UV1C			32008 SH 1	RC02B	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays			JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: ELEC AC Equipment ID No. : A309		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 155 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.8	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
GE-HFA	12HFA51A42H33	3			32008 SH. 4	A3C3	TB	31'6"	CA
		43X			32008 SH 4	C01	ĊB	36'6"	CA
		43X-1			32008 SH 4	A309	TB	31'6"	CA
GE-IAC	12IAC66K8A	50/51			32008 SH. 4	A309	TB	31'6"	CA
GE-PJC	121PJC11AV1A	50GS			32008 SH 4	A309	TB	31'6"	CA
		52-X/22S3-24C-2			39047 SH. 10	A302	TB	31'6"	CA
		52/HH			30042 SH. A	A309	TB	31'6"	NV
1		52Y			30042 SH. A	Ă309	TB	31'6"	SWGR GERS
		HS3017			32008 SH. 4	C01	CB	36'6"	NV
		# LD SHED/K529A	NO	NO	39047 SH 5	RC023	CB	36'6"	CA
		# RELAY CSAS (Note 6)							NA
		# RELAY SIAS (Note 7)							NA
		SIAS1/K517A	NO	NO	32008 SH 4	RC02B	CB	36'6"	
1		SRAS1/K512A	NO	NO/NC	32008 SH. 4	RC02B	CB	36'6"	CA
		TS			39047 SH. 10	A309	TB	31'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
	R GERS - SWGR Screening based on EPRI-7148-SL	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
NA CR	Component not affected by relays. Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : A311			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					PAGE 156 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.8	Type Relay Model No.	Contact	ENER(Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*	
GE-HFA	HFA51A4233	3			32015 SH 1	A311	TB	31'6"	CA	
GE-HFA	12HFA51A42H42	43X			32015 SH. 1	C06X	CB	36'6"	CA	
GE-IAC	12IAC66K8A	50/51			32015 SH 1	A311	TB	31'6"	CA	
GE-PJC	121PJC11AV1A	50GS			32015 SH 1	A311	TB	31'6"	CA	
		52/HH			30042 SH. A	A311	TB	31'6"	NV	
1		52Y			30042 SH. A	A311	TB	31'6"	SWGR GERS	
AGASTAT	7012PBW	63T/TDC			32015 SH. 1	A311	TB	31'6"	CA	
		HS6119A			32015 SH 1	C06	CB	36'6"	NV	
1		# LD SHED/K529A	NO	NO	39047 SH. 3	RC02B	CB	36'6"	CA	
		PS6119A			32015 SH. :	PS6119A	AB	-25'6"	CA	
		SIAS1/SEQ. 2	NO	NO	32015 SH. 1	RC02B	CB	36'6"		
		TS			32015 SH 1	A311	TB	31'6"	NV	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2

PAGE 157 DATE 12/12/95 REV. 0

Equipment ID No. : A312

DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

ENERG

-		T		Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Floy	SAT. *
Rev	and the second second second second second second	& Type Relay Model No.		Contact	and the second difference in particular second second	And in the second second second	32041 SH 1	A311A	TB		SWGR GERS
1	GE-IJS	IJS52D1A		25/SC	NO	NO				36'6"	
			#	25CS			32041 SH 1	C`8	CB	the second s	
				25NCS			32041 SH. 1	C38	AB	14'6"	
1	GE-IAV	12IAV55CIA		27/B	NO	NC	32041 SH 1	A311A	TB		SWGR GERS
1	GE-IAV	12IAV55CIA		27/L	NO	NO/NC	32041 SH_1	A311A	TB		SWGR GERS
1	GE-HFA	12HFA151A2H		3/OPERATE	NO	NO	32041 SH. 1	A312	TB	31'6"	CA
	GE-ICW	12ICW51A2A		32	NO	NO	32041 SH 1	A312	TB	31'6"	
	GE-HEA	12HEA63C238	#	43-1(DG-A)	Y/N	NO/NC	32041 SH 1	C38	AB	14'6"	
			#	43-MSS(DG-A)			32041 SH 1	C08	CB	36'6"	NV
	GE-PJC	12PJC11X3A		50	NO	NO	32041 SH 1	A311A	TB	31'6"	
_	GE-PJC	12PJC11AV		50GS	NO	NO	32041 SH 1	A312	TB	31'6"	
	GE-IAC	IAC53A	#	51	NO	NO	32002 SH 1	A302	TB	31'6"	
	GE-IAC	IAC53A	#	51GS	NO	NO	32002 SH 1	A302	TB	31'6"	And a state of the second state of the second
	GE-IJCV	12IJCV52A9A		51V	NO	NO	32041 SH 1	A312	TB	31'6"	
1				52/AUX SW			30042 SH. A	A312	TB	31'6"	NV
				52/HH			32041 SH 1	A312	TB	31'6"	NV
			#	52STA/21S3-24E-2			32041 SH. 1	A505	ŤB	31'6"	NV
			#	52STA/22S3-24C-2			32041 SH. 1	A302	TB	31'6"	NV
			#	52STA/24C-1T-2			32041 EH 1	A304	TB	31'6"	NV
-				52Y			30042 SH. A. 39004 SH. 29	A312	TB	31'6"	SWGR GERS
-	GE-NGV	12NGV22A1A		59	NO	NO	32041 SH 1	C38	AB	14'6"	
	ITE		#	5X	NO	NO	32041 SH 1	T040	AB	14'6"	
				75			39004 SH 28	A312	TB	31'6"	NV
				75CS			39004 SH 28	A312	TB	31'6"	NV
	GE-CFF	12CFF12AG3A		81	NO	NO	32041 SH 1	A312	TB	31'6"	SWGR GERS
1	GE-CFF	12CFF12AG3A		81/X	NC	NO	32041 SH 1	A312	TB		SWGR GERS
1	GE-HEA	HEA61B		86	NO	NO	32041 SH 1	A312	TB	31'6"	
	And him I I have I	- That the Law									

A "#" indicates that this relay has multiple occurrences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA - Chatter acceptable.

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL	REV 0	Reviewed by:	JJB	Date:	12/12/95
	Component not affected by relays. Corrective action required.			PC		
	- Operator action.	REV. 1	Reviewed by:	CB	Date:	12/12/95

Equipment ID No. : A312

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS PAGE 158 DATE 12/12/95 REV. 0

ev.Relay Mfg.&	Type Relay Model No.	Contact	ENERG Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
GE-HFA	12HFA151A2H	86-2/22S3-24C2	NO	NO	32041 SH. 1	A302	TB	31'6"	
		BUS A3 LD SHED	NO	NO	32041 SH 1	RC02B	CB	36'6"	
		CS-1			32041 SH 1	A312	TB	31'6"	NV
		CS-2			32041 SH 1	C08	CB	36'6"	NV
		CS-3			32041 SH 1	C38	AB	14'6"	NV
ITE		# HSR(DG-A)	NO	NO	32041 SH 1	T040	AB	14'6"	
		# OPS(DG-A)			32041 SH. 4	T040	AB	14'6"	
		# PB100(DG-A)			32041 SH. 1	C38	AB	14'6"	NV
ITE		# SDR (A) (Note 1)	NO	NO	32041 SH. 1	T040	AB	14'6"	
		# SSW (810)(DG-A)			32041 SH. 4	T040	AB	14'6"	
		TS			32041 SH. 1	A312	TB	31'6"	NV

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV - Not vulnerable (mech	anically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Scree NA - Component not affect		REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action requ		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	CB	Date:	12/12/95

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2

PAGE 159 DATE 12/12/95 REV. 0

-

.....

Equipment ID No. : A401

DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG

Re	.Relay Mfg.	& Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
1	GE-IJS	12IJS52D1A		25/SC	NO	NO	32041 SH 2	A401A	TB	56'6"	SWGR GERS
			#	25CS			32041 SH 2	C08	CB	36'6"	NV
				25NCS			32041 SH 2	C39	AB	14'6"	NV
1	GE-IJS	IJS52		27/B	NÔ	NO	32041 SH 2	A401A	TB	56'6"	SWGR GERS
1	GE-IJS	IJS52		27/L	NO	NO	32041 SH 2	A401A	TB	56'6"	SWGR GERS
1				3/OPERATE	NO	NO	32041 SH 2	A401	TB	56'6"	CA
	GE-ICW	12ICW51A2A		32	NO	NO	32041 SH 2	A401	TB	56.6"	and frequencies and
	GE-HEA	12HEA63C238	#	43-1(DG-B)	Y/N	NO/NC	32041 SH 2	C39	AB	14'6"	
			#	43-MSS(DG-B)			32041 SH. 2	C08	CB	36'6"	NV
	GE-PJC	12PJC11X3A		50	NO	NO	32041 SH. 2	A401	TB	56'6"	
	GE-PJC	12PJC11AV1A		50GS	NO	NO	32041 SH 2	A401	TB	56'6"	
	GE-IAC	12IAC53A101A	#	51	NO	NO	32002 SH 2	A411	TB	56'6"	
	GE-IAC	IAC53A	#	51GS	NO	NO	32002 SH 2	A411	TB	56'6"	
	GE-IJCV	12IJCV52A9A		51V	NO	NO	32041 SH 2	A401	TB	56'6"	
1				52/AUX SW			32041 SH 2	A401	ŤB	56'6"	NV
			-	52/HH			32041 SH 2	A401	TB	56'6"	NV
			#	52STA/21S3-24E-2			32041 SH 2	A505	TB	31'6"	NV
			#	52STA/22S3-24D-2			32041 SH. 2	A411	TB	56'6"	NV
			#	52STA/24D-1T-2			32041 SH 2	A410	TB	56'6"	NV
1				52Y			30042 SH A	A401	TB	56'6"	SWGR GERS
-	GE-NGV	12NGV22A1A		59	NO	NO	32041 SH 2	C39	AB	14'6"	
			#	5X	NO	NO	32041 SH. 2	T041	AB	14'6"	
1	GE-CFF	12CFF12A63A		81	NO	NO	32041 SH 2	A401	TB	56'6"	SWGR GERS
1				81/X	NO	NO	32041 SH 2	A401	TB	56'6"	SWGR GERS
	GE-HEA	HEA61B		86	NO	NO	30041 SH 2	A401	TB	56'6"	
	GE-HFA	12HFA151A2H		86-2/22S3-24D-2	NO	NO	32041 SH 2	A411	TB	56'6"	
				BUS A4 LD SHED	NO	NO	32041 SH 2	RC02C	CB	36'6"	

A "#" indicates that this relay has multiple occurrences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA - Chatter acceptable.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	_ Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	_ Date:	12/12/95
NA - Component not affected by relays.				
CR - Corrective action required.	REV. 1 Prepared by:	PC	_ Date:	12/12/95
OA - Operator action.	Poviewed by	CD	Deter	10/10/05
Blank - Essential Contact.	REV. 1 Reviewed by:	CB	_ Date:	12/12/95

System: ELEC AC Equipment ID No. : A401	USI A-46 RE DOCUMEN		PAGE 160 DATE 12/12/95 REV. 0					
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERO Y/N	and the second se	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	CS-1	1		32041 SH. 2	A401	TB	56'6"	NV
	CS-2			32041 SH. 2	C08	CB	36'6"	NV
	CS-2/A411			32002 SH 2	C08	ĊB	36'6"	NV
	CS-3			32041 SH 2	C39	AB	14'6"	NV
	# HSR(DG-B)	NO	NO	32041 SH 2	T041	AB	14'6"	
	# OPS(DG-B)			32041 SH 2	T041	AB	14'6"	
	# PB100(DG-B)			32041 SH. 2	C39	AB	14'6"	NV
	# SDR (B) (Note 2)	NO	NO	32041 SH 2	T041	AB	14'6"	
	# SSW (810)(DG-B)			32041 SH 2	T041	AB	14'6"	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: _	DJR	Date:	12/12/95
SWG	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: _	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	ÇB	Date:	12/12/95

MILLSTONE POINT UNIT 2
Equipment ID No. : A402
DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

PAGE 161

DATE 12/12/95 REV. 0

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2

Rev	. Relay Mfg.&	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	GE-HFA	12HFA151A2H	3			32015 SH. 3	A402	TB	56'6"	CA
	GE-HFA	12HFA51A42H42	43X			32015 SH 3	CO6X	CB	36'6"	CA
	GE-IAC	121AC66K8A	50/51			32015 SH. 3	A402	TB	56'6"	CA
	GE-PJC	12PJC11AV1A	50GS			32015 SH. 3	A402	TB	56'6"	CA
		and the second	52/HH			32015 SH 3	A402	TB	56'6"	NV
1			52Y			30042 SH A	A402	TB	56'6"	SWGR GERS
	AGASTAT	7012C002	63T/TDC			32015 SH 3	A402	TB	56'6"	CA
			H\$6119C			32015 SH 3	C06	CB	36'6"	NV
1			# LD SHED/K629A	NO	NO	32015 SH. 3, 39047 SH. 15	RC02C	CB	36'6"	CA
			PS6119C			32015 SH 3	PS6119C	AB	-25'6"	CA
			SIAS2/SEQ. 2	NO	NO	32015 SH 3	RC02C	CB	36'6"	
			TS			32015 SH. 3	A402	TB	56'6"	NV

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	CGERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: ELEC AC Equipment ID No. : A403		MILLSTONE	POINT UN	UATION TABULATION IT 2 SOCIATED RELAYS		PAGE DATE REV. 0	162 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	3			32008 SH 2	A403	TB	56'6"	CA
	43X			32008 SH 2	C01	CB	36'6"	CA
	50/51			32008 SH 2	A403	TB	56'6"	CA
	50GS			32008 SH.2	A403	TB	56'6"	CA
	52/HH			32008 SH 2	A403	TB	56'6"	NV
	# 52X/22S3-24D-2			32008 SH 2	A411	TB	56'6"	CA
1	52Y			30042 SH.A	A403	TB	56'6"	SWGR GERS
	H\$3016			32008 SH 2	C01	CB	36'6"	NV
	# RELAY CSAS (Note 6)							NA
	# RELAY SIAS (Note 7)							NA
	SIAS-2/K614A	NO	NO	32008 SH 2	RC02C	CB	36'6"	
	TS			32008 SH 2	A403	TB	56'6"	NV
	UV2C			32008 SH 2	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state rela	ys). REV. 0 Prepared b	y:DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed I	by:JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared b	y:PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed t	ру:СВ	Date:	12/12/95

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

PAGE 163 DATE 12/12/95 REV. 0

Equipment ID No. : A404

			ENERG	3			REV. U		
Rev. Relay Mfg.8	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	CAT. *
GE-HFA	12HFA151A2H	3			32008 SH 5	A404	TB	56'6"	CA
		43X			32008 SH 5	C01	CB	36'6"	CA
		43X-1			32008 SH 5	A404	TB	56'6"	CA
GE-IAC	12IAC66K15A	50/51			32008 SH 5	A404	TB	56'6"	CA
GE-PJC	12PJC11AV1A	50GS			32008 SH 5	A404	TB	56'6"	CA
		52/HH			32008 SH. 5	A404	TB	56'6"	NV
		# 52X/22S3-24D-2			32008 SH. 5	A411	TB	56'6"	CA
1		52Y			30042 SH. A	A404	TB	56'6"	SWGR GERS
		HS3018			32008 SH 5	C01	CB	36'6"	NV
		# LD SHED/K629A	19		39047 SH. 15	RC02C	CB	36'6"	CA
		# RELAY CSAS (Note 6)							NA
		# RELAY SIAS (Note 7)							NA
		SIAS2/K634F	NO	NO/NC	39047 SH. 15	RC02C	CB	36'6"	
1		SRAS2/K617A	NO	NO	39047 SH 13	RC02C	ĊB	36'6"	CA
		TS			32008 SH 5	A404	TB	56'6"	NV
and the second se		the second se	and the second se	and the second second					and the second s

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

	stem: ELEC		u	US! A-45 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				PAGE DATE REV. 0		
		Type Relay Model No.	Contact	ENERG Y/N	NO/NC Ref. Drawings(s)		Panel	Bidg.	Elev.	SAT. *
4	GE-HFA	12HFA151A2H	3	NO	NC	32012 SH. 12	A406	TB	56'6"	CA
1	GE-HFA	12HFA151A2H	3	NO	NC	32012 SH 12	A406	TB	56'6"	SWGR GERS
-	GE-HFA	12HFA151A2H	3	NO	NO	32012 SH 12	A406	TB	56'6"	SWGR GERS
-	GE-IAC	12IAC66K8A	50/51A	NO	NO	30044 SH 8	A406	TB	56'6"	
-	GE-IAC	121AC66K8A	50/51B	NO	NO	30044 SH 8	A406	TB	56'6"	
-	GE-IAC	12IAC66K8A	50/51C	NO	NO	30044 SH 8	A406	TB	56'6"	
1	GE-PJC	12PJC11AV1A	50GS	NO	NO	32012 SH. 12, 30044 SH. 8	A406	TB	56'6"	
			52/HH		and the second	32012 SH 12	A406	TB	56'6"	NV
-			52Y			30042 SH. A	A406	TB	56'6"	SWGR GERS
1			# 86Z2A			32012 SH. 12	C05	CB	36'6"	CA
			H\$5288A			32012 SH 12	C05	ĊB	36'6"	NV
			HS5288B			32012 SH 12	C21	AB	38'6"	NV
-			K634L	NO	NO	32012 SH 12	RC02C	ĊВ	36'6"	
			K634M	NO	NO	32012 SH. 12	RC02C	CB	36'6"	
			TS			32012 SH 12	A406	TB	56'6"	NV
			UV2C/K629B	NO	NO	32012 SH 12, 39047 SH 15	RC02C	CB	36'6"	

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	vstem: ELEC			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				PAGE DATE REV. 0		
Re	v.Relav Mfg.8	Type Relay Model No.	Contact	ENERO Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
1	GE-HFA	12HFA151A2H	3	NO	NC	32013 SH. 7	A407	TB	56'6"	CA
1	GE-HFA	12HFA151A2H	3	NO	NO	32013 SH. 7	A407	ŤB	56'6"	SWGR GERS
1	GE-HFA	12HFA151A2H	3	NO	NO	32013 SH 7	A407	TB	56'6"	SWGR GERS
1	GE-HFA	12HFA51A42H42	43X	NO	NO/NC	32013 SH. 7	C06X	СВ	36'6"	ČA
1	GE-IAC	12IAC66K8A	50/51A	NO	NO	30044 SH. 8	A407	TB	56'6"	
1	GE-IAC	12IAC66K8A	50/51B	NO	NO	30044 SH 8	A407	TB	56'6"	
1	GE-IAC	12IAC66K8A	50/51C	NO	NO	30044 SH. 8	A407	TB	56'6"	
-	GE-PJC	12PJC11AV1A	50GS	NO	NO	30044 SH. 8	A407	TB	56'6"	
1			52/HH		NC	32013 SH. 7	A407	TB	56'6"	NV
1			52Y	NO	NO/NC	30044 SH. A	A407	TB	56'6"	CA
1			ČŠ-1		NO	32013 SH. 7	A407	TB	56'6"	NV
1			HS6491		NC	32013 SH. 7	C06	CB	36'6"	NV
-			# LD SHED/K629A	NO	NO	39047 SH. 15	RC02C	CB	36'6"	
			SIAS2/SEQ.1/K615C	NÒ	NO	32013 SH. 7	RC02C	CB	36'6"	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

	vstem: ELEC quipment ID No.				MILLSTONE	POINT UNI	UATION TABULATION T 2 SOCIATED RELAYS		PAGE		5
					ENER				REV. 0	1.1	
Re	v.Relay Mfg.&	Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev	SAT.
	GE-PJC	121PJC11AV1A	#	50GS	NO	NO	32002 SH 15	A505	TB	31'6"	and the second se
1	GE-IAC	12IAC53A101A		51A	NO	NO	32002 SH. 14	A408	TB	56'6"	
1	GE-IAC	12IAC53A101A	#	51A	NO	NO	32002 SH 15	A505	TB	31'6"	
1	GE-IAC	12IAC53A101A	#	51A	NO	NO	32002 SH 12	A410	TB	56'6"	a second s
1	GE-IAC	12IAC53A101A		51B	NO	NO	32002 SH 14	A408	TB	56'6"	
1	GE-IAC	12IAC53A101A	#	518	NO	NO	32002 SH 15	A505	ТВ	31'6"	
1	GE-IAC	12IAC53A101A	#	518	NO	NO	32002 SH 12	A410	TB	56'6"	
1	GE-IAC	12IAC53A101A		51C	NO	NO	32002 SH 14	A408	TB	56'6"	
1	GE-IAC	12IAC53A101A	#	51C	NO	NO	32002 SH 15	A505	TB	31'6"	
1	GE-IAC	12IAC53A101A	#	51C	NO	NO	32002 SH 12	A410	TB	56'6"	
	GE-IAC	12IAC53A3A		51GS	NO	NO	30044 SH 9	A408	TB	56'6"	
-	GE-IAC	12IAC53A3A	#	51GS	ÎNO	NO	32002 SH. 12	A410	TB	56'6"	
				52/HH			32002 SH 14	A408	ТВ	56'6"	NV
-		and the second	#	52STA/15G-13U-2			32002 SH 14	A401	TB	56'6"	
			#	52STA/21S3-24E-2			32002 SH 14	A505	TB	31'6"	
			#	52STA/22S3-24D-2			32002 SH 14	A411	TB	56'6"	NV
			#	52STA/24C-2T-2			32002 SH 14	A305	TB	31'6"	NV
			#	52STA/24D-1T-2			32002 SH 14	A410	TB	56'6"	NV
1				52Y			30042 SH A	A408	TB	56'6"	SWGR GERS
1	TEL	CLASS J		83X	NO	NC	32002 SH 14	A408	TB	56'6"	SWGR GERS
	GE-HFA	12HFA151A2H		86	NO	NC	32002 SH 14	A408	TB	56'6"	
	GE-HFA	HFA51A	#	86-1/21S3-24E-2	NO	NO	32002 SH. 15	A505	TB	31'6"	
	GE-HFA	12HFA151A2H	#	86-1/22S3-24D-2 (Note 16)	NO	NO	32002 SH. 2	A411	TB	56'6"	
	GE-HFA	12HFA151A2H		86-1/24D-1T-2	NO	NO	32002 SH. 12	A410	TB	56'6"	
-	GE-HFA	HFA51A	#	86-2	NO	NC	32002 SH 15	A505	TB	31'6"	
	GE-HFA	12HFA 51A2H	#	86-2	NO	NO	32002 SH 12	A410	TB	56'6"	
	GE-HEA	HEA61B		86/15G-13U-2 (Note 15)	NO	NO/NC	32041 SH 2	A401	TB	56'6"	

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

. .

NV - Not vulnerable (mechanically actuated contacts or solid state rel= /s).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : A408			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 167 DATE 12/12/95 REV 0		
Rev. Rolay Mfg.&	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HGA	HGA11W	86X	NO	NO	32002 SH 14	A408	TB	56'6"	
		CS-1			32002 SH. 14	A408	TB	56'6"	NV
	and a second to the spectrum second	CS-2			32002 SH 14	C08	CB	36'6"	NV
		CS-2/A410			32002 SH 12	A410	TB	56'6"	NV
		# CS-2/A505			32002 SH. 15	A505	TB	31'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

	stem: ELEC puipment ID No			USI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG	OINT UNIT	2		PAGE 168 DATE 12/12/95 REV. 0		
Re	v.Relay Mfg.8	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
1	GE-HFA	12HFA151A2H	3	NO	NC	32002 SH 10	A409	TB	56'6"	CA
1	GE-HFA	12HFA151A2H	3	YES	NO	32002 SH 10	A409	TB	56'6"	SWGR GERS
1	GE-HFA	12HFA151A2H	3	YES	NO	32002 SH 10	A409	TB	56'6"	SWGR GERS
1	GE-IAC	12IAC53B104A	50/51A	NO	NO	30044 SH 9	A409	TB	56'6"	
1	GE-IAC	12IAC53B104A	50/51B	NO	NO	30044 SH 9	A409	TB	56'6"	
1	GE-IAC	12IAC53B104A	50/51C	NO	NO	30044 SH. 9	A409	TB	56'6"	
	GE-PJC	12PJC11AV1A	50GS	NO	NO	30044 SH 9	A409	TB	56'6"	
-			52/HH			32002 SH 10	A409	TB	56'6"	NV
1			52Y	NO	NO/NC	30042 SH A	A409	TB	56'6"	CA
			CS-1	- Water and the second		32002 SH. 10	A409	TB	56'6"	NV
			CS-2		-	32002 SH. 10	C08	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	_ Date: _	12/12/95

System: ELEC AC Equipment ID No. : A410		USI A-46 RELAY SCREENING MILLSTONE DOCUMENT NO. MP2-RELA ENER		PAGE 169 DATE 12/12/95 REV. 0			
Rev. Relay Mfg.&Type Relay Model No.		Contact Y/N	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
2	#	51(Note 17)	32002 SH 12	A410	TB	56'6"	CA
	#	51GS(Note 17)	 32002 SH 12	A410	TB	56'6"	CA
		52b	 32002 SH 12	A408	TB	56'6"	NV
		52HH	 32002 SH 12	A410	TB	56'6"	NV
		52HH	 32002 SH 12	A408	TB	56'6"	NV
	#	52STA/15G-13U-2	 32002 SH 12	A401	TB	56'6"	NV
	#	52STA/22S3-24D-2	 32002 SH 12	A411	TB	56'6"	NV
	#	52STA/2S3-24B-2	 32002 SH 12	A206		~	NV
		83X	 32002 SH 12	A410	TB	56'6"	CA
	#	86-1/22S3-24D-1(Note 17)	 32002 SH 12	A411	TB	56'6"	CA
	#	86-2(Note 17)	 32002 SH 12	A410	TB	56'6"	ĊĂ
	-	86/2S3-24B-2(Note 17)	32002 SH 12	A206			CA
		CS-1	 32002 SH 12	A410	TB	56'6"	NV
		CS-2	 32002 SH 12	C08	ĊB	36'6"	NV
	-	UV2C(Note 17)	 32002 SH 12	RC02C	CB	36'6"	CA

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC Equipment ID No.			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					PAGE 170 DATE 12/12/95 REV. 0		
Day Dalay Ma S	Type Relay Model No.		Contact	ENERC Y/N		Def Drawings(a)	Denal	Dista		
rev.reiay mig.o	Type Relay model no.		25CS	1/14	NUINC	Ref. Drawings(s)	Panel	Bldg.		SAT.*
OF UPA	LIEAFIAID	#					C08	CB	36'6"	
GE-HFA	HFA51A42	_	27/1-X1/24D(Note 17)			32002 SH. 12	A401A	TB	56'6"	
GE-HFA	HFA51A42		27/1-X2/24D(Note 17)			32002 SH. 12	A401A	TB	56'6"	CA
			43	NO	NO	32002 SH. 2	A411	TB	56'6"	NV
GE-IAC	12IAC53A101A	#	51(Note 17)	1		30044 SH. 10	A411	TB	56'6"	CA
GE-IAC	IAC53A	#	51GS(Note 17)			30044 SH. 10	A411	TB	56'6"	CA
			52/HH			32002 SH. 2	A411	TB	56'6"	NV
			52b			32002 SH 2	A411	TB	56'6"	NV
		#	52STA/24D-1T-2			32002 SH. 2	A410	TB	56'6"	NV
		#	52STA/2S3-24B-2			32002 SH 2	A206	TB	56'6"	NV
1	An an a the ray of an and an an an an an an an an an	-	52Y			30042 SH. A	A411	TB	56'6"	SWGR GERS
AGASTAT	2422PA		62(Note 17)			32002 SH. 2	A411	TB	56'6"	CA
			83X/J13			32002 SH 2	A411	TB	56'6"	CA
GE-HLA	11B12A		83X2/15G-22S	NO	NO	32002 SH 2	C07R	CB	36'6"	
		#	83XT			32002 SH. 2	C08R	CB	36'6"	CA
			83XT2/J13			32002 SH. 2	A411	TB	56'6"	
			86-1	NO	NC	32002 SH 12	A410	TB	56'6"	
GE-HFA	HFA51A42		86-2(Note 17)			32002 SH. 2	A411	TB	56'6"	
GE-HGA	12HGA11J52		86B-2X			32002 SH 2	A411	TB	56'6"	
			CS-1			32002 SH 2	A411	TB	56'6"	and the second se
			CS-2			32002 SH 2	C08	CB	36'6"	
		-	K628A(Note 17)			39047 SH 15	RC02C	CB	36'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	System: ELEC AC Equipment ID No. : A502			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	5	
Re	v.Relay Mfg.8	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
1	GE-HFA	HFA51A	3	NO	NC	32013 SH. 6	A502	TB	31'6"	CA
1	GE-HFA	HFA51A	3	NO	NO	32013 SH 6	A502	TB	31'6"	SWGR GERS
1	GE-HFA	HFA51A	3	NO	NO	32013 SH 6	A502	TB	31'6"	SWGR GERS
1	GE-HFA	12HFA51A42H42	43X	NÖ	NO/NC	32013 SH 6	C06X	CB	36'6"	CA
1	GE-IAC	12IAC66K8A	50/51A	NO	NO	30044 SH. 11	A502	TB	31'6"	
1	GE-IAC	12IAC66K8A	50/51B	NO	NO	30044 SH. 11	A502	TB	31'6"	
1	GE-IAC	12IAC66K8A	50/51C	NO	NO	30044 SH 11	A502	TB	31'6"	
	GE-PJC	121PJC11AV1A	50GS	NO	NO	32013 SH 6	A502	TB	31'6"	
			52/HH			32013 SH 6	A502	TB	31'6"	NV
1			52Y			30042 SH. A	A502	TB	31'6"	SWGR GERS
			CS			32013 SH 6	A502	TB	31'6"	NV
			HS6484			32013 SH. 6	C06	CB	36'6"	NV
			KS651B	NO	NO	39047 SH 25	RC02E	AB	36'6"	
			# LD SHED/KS631A	NO	NO	39047 SH 16	RC02E	AB	36'6"	
			SIAS5/SEQ.1/K634D	NO	NO	39047 SH. 15	RC02E	AB	36'6"	

NV - Not vulne	rable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
	WGR Screening based on EPRI-7148-SL int not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR - Correctiv	e action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA - Operator Blank - Essentia		REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

System: ELEC AC Equipment ID No. : A503		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					PAGE 172 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.8	Type Relay Model No.	Contact	ENERO Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
GE-HFA	12HFA51A42H33	3	NO	NO/NC	32008 SH 3	A503	TB	31'6"	CA
		43X			32008 SH 3	C01	CB	36'6"	CA
GE-IAC	12IAC66K8A	50/51	NO	NO	30044 SH 11	A503	TB	31'6"	CA
		50GS			32008 SH 3	A503	TB	31'6"	CA
		52HH			32008 SH 3	A503	TB	31'6"	NV
		52X/21S3-24E-2			32008 SH 3	A505	TB	31'6"	CA
1		52Y			30042 SH A	A503	TB	31'6"	SWGR GERS
		H\$3015			32008 SH 3	C01	ĊB	36'6"	NV
		# LD SHED/KS531A/KS631A			39047 SH 18	RC02E	AB	36'6"	CA
		SIAS5/SEQ1/K514B	NO	NO	39047 SH 9	RC02B	CB	36'6"	
		SIAS5/SEQ1/K614B	NO	NO	39047 SH 13	RC02C	CB	36'6"	
		TS			32008 SH 3	A503	TB	31'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	System: ELEC AC Equipment ID No. : A504			MILLSTONE	POINT UN	UATION TABULATION T 2 SOCIATED RELAYS					
Rev	, Relav Mfg.&	Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(Ref. Drawings(s)	Panel	Bidg. Ele		V. SAT. *	
	GE-HFA	HFA51A42H33	3			32015 SH 2	A504	TB	31'6"	and the second se	
	GE-HFA	12HFA51A42H42	43X			32015 SH. 2	C06X	CB	36'6"		
	GE-IAC	12IAC36K8A	50/51			30044 SH 11	A504	TB	31'6"	CA	
	GE-PJC	121PJC11AV1A	50GS			30044 SH. 11	A504	TB	31'6"	CA	
			52/HH			32015 SH. 2	A504	TB	31'6"	NV	
1			52Y			30042 SH. A	A504	TB	31'6"	SWGR GERS	
	AGASTAT	7012PBW	63T/TDC			32015 SH 2	A504	TB	31'6"	CA	
			HS6119B			32015 SH. 2	C06	ĆВ	36'6"	NV	
1	ana ila dana ina mana ina mana ina ina ina ina ina ina ina ina ina	and and a ship in the desired statements are stated	LD SHED/K531A	NO	NO	39047 SH 11	RC02B	CB	36'6"	CA	
1			LD SHED/K631A	NO	NO	39047 SH. 15	RC02C	CB	36'6"	CA	
1			# LD SHED/KS531A	NO	NO	39047 SH 16	RC02E	AB	36'6"	CA	
1			# LD SHED/KS631A	NO	NO	39047 SH. 16	RC02E	AB	36'6"	CA	
			PS6119B			32015 SH. 2	PS6119B	AB	-25'6"	ĊĂ	
			SIAS5/SEQ2/K516B	NO	NO	39047 SH. 9	RC02B	CB	36'6"		
			SIAS5/SEQ2/KS516B	NO	NO	39047 SH. 16	RC02E	AB	36'6"		
			TS			32015 SH. 2	A504	TB	31'6"	NV	

NV - Not vulnerable (mechanically ac	ctuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening base NA - Component not affected by rela		REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	yo.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0502	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	174 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	52	32002 SH. B	B0502	AB	36'6"	
	52b/24C1-2	32002 SH. 28	A303	TB	31'6"	NV
	52HH/24C1-2	32002 SH 28	A303	TB	31'6"	NV
	CS-1	32002 SH. 28	B0502	AB	36'6"	NV
	CS-2	32002 SH 28	C08	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0503		USI A-46 RELAY SCREENING AND EVALUAT MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOC ENERG			DATE REV. 0	175 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC R	ef. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	52	3:	2003 SH. 29	B0503	AB	36'6"	CA
	PB/T	31	2003 SH 29	B0503	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/35
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC Equipment ID No.	DAFAI	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		MILLSTONE POINT UNIT 2		PAGE DATE REV. 0	DATE 12/12/95		
ev.Relay Mfg.&	Type Relay Model No.	Contact	ENERG Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *	
		52		32003 SH. B, 30052 SH. 2	80504	AB	3F'	CA	
		52Y		32003 SH. B. 30052 SH. 2	B0504	AB	36'6"	ĊA	
GE-HGA	12HGA11J52	# 63X/LC-110XL		32007 SH 57	C03R	CB	36'6"	CA	
GE-HGA	12HGA11J986	# 63X/LC-110YL		32007 SH 57	C03R	CB	36'6"	CA	
GE-HFA	12HFA151A9H	63XA/LC110L		32007 SH 5	C03R	CB	36'6"	CA	
		HS-100-3		32007 SH 57	C03F	CB	36'6"	NV	
		HS100-1		32007 SH 5	C03	CB	36'6"	NV	
		# LL-110X-1A		32007 SH. 57, 28500 SH. 698	RC31A	CB	36'6"	CA	
		# LL-110Y-1A		32007 SH 57, 28500 SH 698	RC31A	CB	36'6"	CA	
		PB		32007 SH 5	B0504	AB	36'6"	NV	
		PB/CL		32007 SH 5	B0504	AB	36'6"	NV	
		UV1C/LD SHED/K529B	NO	NO 32007 SH. 5, 39047 SH. 11	RC02B	CB	36'6"	CA	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

avigent ID No. : B0506		USI A-46 RELAY SCREENING AI MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG	OINT UNIT	12		PAGE DATE REV. 0	177 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
<u> </u>	2HCR	NO	NO	32003 SH 31	DC1	AB	14'6"	
and descent one of the second	52			32003 SH B	B0506	AB	36'6"	
	PB/T			32003 SH. 31	B0506	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0507		USI A-46 RELAY SCREENING AND EV/ MILLSTONE POINT U DOCUMENT NO. MP2-RELAY.RPT - A ENERG	INIT 2		DATE REV. 0	178 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/	IC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	52		32003 SH. B	B0507	AB	36'6"	
	PB/T		32003 SH 32	B0507	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0508		USI A-46 RELAY SCREENING AND EVALUA MILLSTONE POINT UNIT : DOCUMENT NO. MP2-RELAY.RPT - ASSO ENERG	2		PAGE DATE REV. 0	179 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	52		32003 SH 33	B0508	AB	36'6"	CA
	PB/T		32003 SH 33	B0508	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV 1 Reviewed by:	CB	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0510		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 180 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. [Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	52	32003 5	SH 34	B0510	AB	36'6"	CA
	PB/T	32003 5	SH 34	B0510	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by.	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by: _	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0603		USI A-45 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0	181 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s) Panel	Bldg.	Elev.	SAT. *
	52	32003 SH 44	B0603	AB	36'6"	CA
	PB/T	32003 SH 44	B0603	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0605		USI A-45 RELAY SCREENING AND EVALUATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIAT ENERG			DATE REV. 0	182 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact		. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	52	3200	3 SH 43	B0605	AB	36'6"	CA
	PB/T	3200	3 SH 43	B0605	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0606		USI A-46 RELAY SCREENING AND EVALUATI MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCI ENERG			PAGE DATE REV. 0	183 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact		ef. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	52	32	2003 SH. B	B0606	AB	36'6"	
	PB/T	32	2003 SH 42	B0606	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0607		SI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG	POINT UNIT	12		PAGE DATE REV. 0	184 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact		and the second se	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	2HCR	NO	NO	32003 SH 41	DC2	AB	14'6"	
	52			32003 SH. 8	B0607	AB	36'6"	
	PB/T			32003 SH 41	B0607	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0609			I A-46 RELAY SCREENING AN MILLSTONE PO OCUMENT NO. MP2-RELAY.R ENERG			PAGE DATE REV. 0	185 12/12/95	
ev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
		52		32003 SH. B. 30052 SH. 4	B0609	AB	36'6"	CA
		52Y		32003 SH. B. 30052 SH. 4	B0609	AB	36'6"	CA
GE-HGA	12HGA11J52	# 63X/LC-110XL		32007 SH. 57	C03R	CB	36'6"	CA
GE-HGA	12HGA11J986	# 63X/LC-110YL		32007 SH 57	C03R	CB	36'6"	CA
GE-HFA	12HFA151A2H	63XB/LC-110L		32007 SH 10	C03R	ĊВ	36'6"	CA
		HS100-2		32007 SH 10	C03	CB	36'6"	NV
		HS100-3		32007 SH. 57	C03F	CB	36'6"	NV
		# LL-110X-1A		28500 SH 698, 32007 SH 5	RC31A	CB	36'6"	CA
		# LL-110Y-1A		28500 SH. 698, 32007 SH. 5	RC31B	CB	36'6"	CA
		PB		32007 SH. 10	B0609	AB	36'6"	NV
		PB/CL		32007 SH. 10	B0609	AB	36'6"	NV
		UV2C/LD SHED/	/K629A NO	NO 32007 SH. 10, 39047 SH. 15	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _		Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0610		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 186 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact		NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	52		32003 SH B	B0610	AB	36'6"	
	PB/T		32003 SH 39	B0610	AB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: ELEC AC Equipment ID No. : B0611	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE FOINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	187 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	52		32003 SH, B	B0611	AB	36'6"	
	52/B/24D7-2		32003 SH 38	A409	TB	56'6"	NV
	52HH/24D7-2		32003 SH 38	A409	TB	56'6"	NV
	CS-1		32003 SH 38	B0611	AB	36'6"	NV
	CS-2		32003 SH 38	C08	CB	36'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:12/12/95

System: HVAC Equipment ID No. : F112A		MILLSTONE POINT UNIT 2		PAGE 188 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42	32021 SH 1	B5217	AB	38'6"	
	49	32021 SH 1	B5217	AB	38'6"	
	HS8149	32021 SH 1	LOCAL	AB	14'6"	NV
	SEQ. 0(A)	32021 SH 1	RC02B	CB	36'6"	CA
	SEQ. 4(A)	32021 SH 1	RC02B	CB	36'6"	CA
	SIAS1	32021 SH. 1	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

stem: HVAC sipment ID No. : F112B		MILLSTONE POINT UN		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	189 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact)/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *		
	42		32021 SH 2	86223	AB	36'6"	1.1.1.1.1		
	49		32021 SH 2	B6223	AB	36'6"			
	HS8148		32021 SH. 2	LOCAL	AB	14'6"	NV		
	SEQ. 0(B)		32021 SH. 2	RC02C	CB	36'6"	CA		
	SEQ. 4(B)		32021 SH 2	RC02C	CB	36'6"	CA		
	SIAS2		32021 SH. 2	RC02C	CB	36'6"	CA		

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR NA	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F133		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	190 12/12/95		
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N NO	NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
GE-HGA	12HGA11J98G	3X-2 (Note 18)		32023 SH. 70	C80	CB	36'6"	CA
		42 (Note 18)		32023 SH. 70	B6162	AB	14'6"	CA
		49 (Note 18)		32023 SH. 70	B6162	AB	14'6"	CA
		HS8844		32023 SH. 70	C80	CB	36'6"	NV
PYROTONIC SYS ZIU-6 PCB	SYS ZIU-6 PCB	O.SMOKE DET (Note 18)		32023 SH. 70	C26	ĊB	36'6"	CA
		SEQ. 4(A)	······································	32023 SH 70	RC02C	CB	36'6"	CA
		TS8844 (Note 18)		32023 SH 70	LOCAL	TB	56'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No.: F134		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	191 12/12/95		
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
GE-HGA	12HGA11J98G	# 3X-1 (Note 18)		32023 SH. 71	C80	CB	36'6"	CA
		42 (Note 18)		32023 SH. 71	B5163	AB	14'6"	CA
		49 (Note 18)		32023 SH. 71	B5163	AB	14'6"	CA
		HS8849		32023 SH. 71	C80	CB	36'6"	NV
PYROTONIC SYS ZIU-6 PCB	O.SMOKE DET (Note 18)		32023 SH. 71	C26	CB	36'6"	CA	
		SEQ. 4(B)		32023 SH. 71	RC02B	CB	36'6"	CA
		TS8849 (Note 18)		32023 SH 71	LOCAL	СВ	45'6"	CA

NV - Not vulnerable (mechanically actuated contacts or s	solid state relays). REV. 0 Prepare	red by:DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Review	ved by:JJB	Date: _	12/12/95
CR - Corrective action required.	REV 1 Prepare	red by:PC	Date.	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. † Review	ved by: <u>CB</u>	Date:	12/12/95

System: HVAC Equipment ID No. : F142						USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0	192 12/12/95	;
Rev. Relay Mfg.&Typ	e Relay Model No.	(Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *		
			42 (Note 18)			32023 SH. 80	B6243	AB	36'6"	CA		
			49 (Note 18)			32023 SH 80	B6243	AB	36'6"	CA		
GE-HGA	12HGA11J70G	#	5/MF52 (Note 18)			32023 SH. 80	C80	CB	36'6"	CA		
			HS2142			32023 SH 80	C80	CB	36'6"	NV		
			SEQ. 0/K634I (Note 18)			39047 SH 15	RC02C	CB	36'6"	CA		
			TS8843 (Note 18)			32023 SH. 80	C80	CB	36'6"	CA		
PYROTONIC SYS	ZIU-6 PCB		ZONE 28 O-SMOKE (Note 18)			32023 SH 43	C26	CB	36'6"	CA		

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL	REV 0	Reviewed by:	JJB	Date	12/12/95
NA	- Component not affected by relays.					
CR	- Corrective action required.	REV. 1	Prepared by: _	PC	Date:	12/12/95
OA	- Operator action.		Poviourod bu:	CP	Date:	12/12/05
Blank	- Essential Contact.	REV. 1	Reviewed by: _	CD	Date	12/12/95

System: HVAC Equipment ID No. : F15A			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				DATE 12/12/95 REV. 0		
Rev. Relav Mfg.&	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	A	3T1			32022 SH 89	B5139	AB	14'6"	CA
AGASTAT	7012AD	3T2	NO	NO	32022 SH. 17, 89	B5139	AB	14'6"	
		42			32022 SH 17	B5139	AB	14'6"	
		42A			32022 SH. 89	B5139	AB	14'6"	CA
AGASTAT	E7022AB002	42T/TDO	YES	NO	32022 SH 17, 89	B5139	AB	14'6"	
		43X			32022 SH. 17	C01	CB	36'6"	CA
Contraction of the second		49			32022 SH 17	B5139	AB	14'6"	
		49A			32022 SH 89	B5139	AB	14'6"	-
		HS8314			32022 SH. 17	C01	CB	36'6"	NV
		PB			32022 SH 17	B5139	AB	14'6"	NV
	and the second	SIAS1/SEQ4			32022 SH 17	RC02B	CB	36'6"	CA

Inerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
- SWGR Screening based on EPRI-7148-SL onent not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
tive action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
tor action. tial Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F15B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PACE 134 DATE 12/12/95 REV. 0		5	
lev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Parti	Bldg.	Elev.	SAT. *	
		3T1			32022 SH 90	B6145	AB	14'6"	and the owner of the local division of the l	
AGASTAT	7012AD	312	NO	NO	32022 SH. 18, 90	E6145	AB	14'6"		
		42			32022 SH 18	B6145	AB	14'6"		
		-12A			32022 SH. 90	B6145	AB	14'6"	CA	
AGASTAT	E7022AB002	42T/TDO	YES	NO	32022 SH 18, 90	B6145	AB	14'6"		
		43X			32022 SH. 18	C01	CB	36'6"	CA	
		49			32022 SH. 18	B6145	AB	14'6"		
		49A			32022 SH. 90	B6145	AB	14'6"		
		HS8315			32022 SH 18	C01	CB	36'6"	NV	
		PB			32022 SH 18	B6145A	AB	14'6"	NV	
		SIAS2/SEQ.4			32022 SH. 18	RC02C	CB	36'6"	CA	

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

.

System: HVAC Equipment ID No. : F21A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2+:ELAY.RPT - ASSOCIATED RELAYS ENERG				DATE		
Rev. Relay Mfg.&Type Relay Model No.	Contact	and the second sec	IC Ref. Dr. vings(s)	Panel	Bldg.	Elev.	SAT.*
	# 3X-1/J10 (Note 18)		32023 SH. 37	C25A	CB	36'6"	CA
	# 3X/J10 (Note 18)	and the second	32023 SH. 1, 37	C25A	CB	36'6"	CA
	# 42 (Note 18)		32023 SH. 1	B5214	AB	38'6"	CA
	# 45X/J10		32023 SH 37	C25A	CB	36'6"	CA
	# 49 (Note 18)		32023 SH. 1	B5214	AB	38'6"	CA
PYROTONIC SYS ZIU-6 PCB	# AS8362 (Note 18)		32023 SH. 37	C26	CB	36'6"	CA
	# HS8004A		32023 SH 37	C25A	CB	36'6"	NV
	# HS8009		32023 SH 1	C25A	CB	36'6"	NV
	SEQ. 0/K508C		39047 SH 10	RC02B	CB	36'6"	CA
	SEQ. 4/K513C		39047 SH 10	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F21B			MILLSTONE). MP2-RELAY	AND EVALUATION TABULATION POINT UNIT 2 		PAGE DATE REV. 0	196 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.		Contact	ENERO Y/N	G NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	3X-1/J10 (Note 18)	-	32023 SH 2, 39A	C25B	CB	36'6"	CA
	#	3X/J10 (Note 18)		32023 SH. 2, 39A	C25B	CB	36'6"	CA
		42 (Note 18)		32023 SH 2	B6234	AB	36'6"	CA
	#	45X		32023 SH 39A	C25B	CB	36'6"	CA
	#	49 (Note 18)		32023 SH 2	B6234	AB	36'6"	CA
PYROTONIC SYS ZIU-6 PCB	#	AS8358 (Note 18)	and the second	32023 SH 2	C26	CB	36'6"	CA
		HS8004B	and a second	32023 SH 39A	C25B	CB	36'6"	NV
	#	HS8010		32023 SH 2	C25B	CB	36'6"	NV
	#	SEQ. 0/K634B (Note 18)		32023 SH 2, 39047 SH 15	RC02C	CB	36'6"	CA
	#	SEQ. 4/K634H (Note 18)		32023 SH. 2, 39047 SH. 15	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated	contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on E NA - Component not affected by relays.	PRI-7148-SL	REV.0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	СВ	Date:	12/12/95

Equipment ID Concernent ID Concernent ID Concernent			JSI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY	POINT UNIT	2		PAGE DATE REV. 0	DATE 12/12/95			
ev.Relav Mfg.8	Type Relay Model No.	Contact		ENERO Y/N	G NO/NC Ref. Drawings(s)		Panel	Bidg. El		ev. SAT. *	
			42			32023 SH 53	B5218	AB	38'6"		
		#	42/MF21A			32023 SH. 1, 53	B5214	AB	38'6"	ĊA	
			42/MF36A	a a la calendar a calendar da calendar a calendar a		32023 SH 55	B5209	AB	38'6"	CA	
			49			32023 SH 53	B5218	AB	38'6"	CA	
GE-HGA	12HCA11J70G	#	90T			32023 SH. 53	X42A	AB	36'6"	CA	
GE	CR120A04022AA	#	90TX			32023 SH 53	X42A	AB	36'6"	CA	
		#	HS9779			32023 SH 53	X42A	AB	36'6"	NV	
		#	M1	NO	NO	32023 SH. 53	C25A	CB	36'6"	CA	
			MTR THERM			32023 SH 53	LOCAL	AB	36'6"	CA	
			OPC(X169A)	an na manana ang kanang ka		32023 SH 53	X42A	AB	36'6"	CA	
			RPC			32023 SH 53	X42A	AB	36'6"	CA	
		#	TS9779			32023 SH. 53	LOCAL	AB	36'6"	CA	

NV - Not vulnerable (mechanically actua	ted contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based of		REV. 0	Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC	5005			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS					PAGE 198 DATE 12/12/95 REV. 0		
av Dolay Ma 8	Type Relay Model No.	Contact		ENERG Y/N NO/NC Ref. Drawings(s)		Raf Drawings(s)	Panel	Bldg. Elev.		SAT. *	
ev. Relay mig.o	Type nelay model no.		42		Homeo	32023 SH 54	X42B	AB	36'6"		
		#	42/MF21B			32023 SH. 2	B6234	AB	36'6"		
			42/MF363			32023 SH 56	B6232	AB	36'6"	CA	
			49			32023 SH. 54	X428	AB	36'6"	CA	
GE-HGA	12HGA11J70G	#	90T			32023 S- 54	X42B	AB	36'6"	CA	
GE	CR120A04022AA	#	90TX			32023 SH 54	X42B	AB	36'6"	CA	
		#	HS9780			32023 SH 54	X426	AB	36'6"	NV	
		#	M1	NÖ	NO	32023 SH 54	C25B	CB	36'6"	CA	
			MTR THERM			32023 SH 54	LOCAL	AB	36'6"	CA	
			OPC(X169B)			32023 SH 54	X42B	AB	36'6"	CA	
		-	RPC			32023 SH 54	X42B	AB	36'6"	CA	
		#	TS9780			32023 SH. 54	LOCAL	AB	36'6"	CA	

NV - Not vulnerable (mechanically actuated contacts or so	blid state relays). REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:		Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F31A		USI A-46 REL DOCUMEN	DATE REV. 0			199 12/12/95			
Rev. Relay Mfg.&Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	42			32023 SH. 3	B5211	AB	38'6"	
	#	49			32023 SH. 3	B5211	AB	38'6"	
	#	HS8001			32023 SH. 3	C25A	CB	36'6"	NV
	#	SEQ 0/K534C	NÖ	NC	32023 SH. 3, 39047 SH. 11	RC02B	CB	36'6"	
	#	SEQ 4/K534G			32023 SH. 3, 39047 SH. 11	RC02B	CB	36'6"	CA

Not vulnerable (mechanically actuated contacts or solid state relays).	REV. C	Prepared by:	DJR	Date:	12/12/95
ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
Operator action. Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F31B		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					200 12/12/95	/12/95	
Rev. Rolay Mfg.&Type Relay Model No.		Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	42			32023 SH 4	86228	AB	36'6"	
	#	49			32023 SH 4	B6228	AB	36'6"	
and a second	#	HS8000			32023 SH 4	C25B	CB	36'6"	NV
	#	SEQ. 0/K634C	NO	NC	32023 SH. 4, 39047 SH. 15	RC02C	CB	36'6"	
	#	SEQ. 4/K634G			32023 SH 4, 39047 SH 15	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0 F	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0 F	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1 F	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 R	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F36A Rev. Relay Mfg.&Type Relay Model No. Contact			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 201 DATE 12/12/95 REV. 0			
		Contact	Y/N NO/NC		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *	
			42			32023 SH. 2	B5209	AB	38'6"	CA
and the second	ana ana amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o amin'ny faritr'o a	#	42/MF21A			32023 SH 1	B5214	AB	38'6"	CA
			49			32023 SH. 2	B5209	AB	38'6"	CA
GE-HGA	12HGA11J70G	#	90T			32023 SH 53	X42A	AB	36'6"	CA
GE	CR120A04022AA	#	90TX			32023 SH. 2, 53	X42A	AB	36'6"	CA
	n kanan kan ang Palakan kanan ka	#	HS9719			32023 SH 53	X42A	AB	36'6"	NV
		#	M1	NO	NO	32023 SH 53	C25A	CB	30'6"	CA
		#	TS9779	1. Subjects and an experimental states and a second system of the second states and a second state of the second states and a second states and a second state of the second states and a s 		32023 SH 53	LOCAL	AB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.		Reviewed by:		Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F36B Rev.Relay Mfg.&Type Relay Model No. Contact			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 202 DATE 12/12/95 REV. 0			
		Contact		Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
			42			32023 SH. 56	B6232	AB	36'6"	CA
		#	42/MF21B			32023 SH. 2, 56	B6234	AB	36'6"	CA
			49			32023 SH. 56	B6232	AB	36'6"	ĊA
GE-HGA	12HGA11J70G	#	90T			32023 SH 54	X42B	AB	36'6"	CA
GE	CR120A04022AA	#	90TX			32023 SH 54, 56	X42B	AB	36'6"	CA
		#	HS9780			32023 SH 54	X42B	AB	36'6"	NV
	and have been as a second back from whether of a subscript in the second	#	M1	NO	NO	32023 SH 54	C25B	CB	36'6"	CA
		#	TS9780			32023 SH. 54	LOCAL	AB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

Systom: HVAC Equipment ID No.: F38A		MILLSTONE POINT	I A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 203 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO	/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *	
	42		32023 SH. 7	B5140	AB	14'6"		
	49		32023 SH 7	B5140	AB	14'6"		
	HS8296		32023 SH 7	LOCAL	AB	14'6"	NV	
	# LSR(DG-A)		32023 SH. 7	T040	AB	14'6"	CA	
the second states and the second	PB		32023 SH 7	B5140	AB	14'6"	NV	
	SEQ. 0(A)		32023 SH 7	RC02B	CB	36'6"	CA	
	SEQ. 4(A)		32023 SH. 7	RC02B	CB	36'6"	CA	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F38B		USI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY. ENERG	RPT - ASSOCIATED RELAYS		PAGE 204 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42		32023 SH 8	B6147	AB	14'6"	
	49		32023 SH 8	B6147	AB	14'6"	
	HS8298		32023 SH 8	LOCAL	AB	14'6"	NV
	# LSR(DG-B)	ende et an angelen fonden inner en ander som en en en en er	32023 SH 8	T041	AB	14'6"	CA
	PB		32023 SH 8	B6147	AB	14'6"	NV
	SEQ. 0(B)		32023 SH 8	RC02C	CB	36'6"	CA
	SEQ. 4(B)		32023 SH 8	RC02C	CB	36'6"	CA

NV - Not vul	nerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	SWGR Screening based on EPRI-7148-SL nent not affected by relays.				Date:	12/12/95
and the second se	ive action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operat Blank - Essenti		REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

System: HVAC

Equipment ID No. : F51

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

PAGE 205 DATE 12/12/95 REV. 0

1000		-	-	-	
E	N		D i	2	
Sec.	1.4	-	EV.	9	

ev.Relay Mfg.&Typ	pe Relay Model No.	Contact	Y/N NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
GE-HGA	12HGA11J70G	# 3X-1 (Note 18)		32023 SH 42	C80	CB	36'6"	CA
		42 (Note 18)		32023 SH. 42	B5160	AB	14'6"	CA
		49 (Note 18)		32023 SH. 42	B5160	AB	14'6"	CA
		HS8842		32023 SH. 42	C80	CB	36'6"	NV
		SEQ. 0(A)		32023 SH. 42	RC02B	CB	36'6"	CA
		SEQ. 4(A)		32023 SH 42	RC02B	ĊB	36'6"	CA
PYROTONIC SY ZIU-6 PCB	ZIU-6 PCB	SMOKE DET (Note 18)		32023 SH. 71	C26	CB	36'6"	CA
		TS8842 (Note 18)		32023 SH. 42	LOCAL	AB	36'6"	CA

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F52			Y SCREENING AND EVALUATION T/ MILLSTONE POINT UNIT 2 NO. MP2-RELAY.RPT - ASSOCIATED ENERG		PAGE DATE REV. 0	206 12/12/95	
Rev. Relay Mfg.3	Type Relay Model No.	Contact	Y/N NO/NC Ref. Dr	rawings(s) Panel	Bldg.	Elev.	SAT.*
		42 (Note 18)	32023 SH	B6154	AB	14'6"	CA
		42/MF142 (Note 18)	32023 SH	1 43 B6243	AB	36'6"	CA
		49 (Note 18)	32023 SH	1 43 <u>36154</u>	AB	14'6"	CA
GE-HGA	12HGA11J70G	# 5/MF52 (Note 18)	32023 SH	1 43 C80	CB	36'6"	CA
		HS8843	32023 SH	1.43 C80	ĊB	36'6"	NV
PYROTONIC SYS ZIU-6 PCB		O-SMOKE (Note 18)	32023 SH	L 43 C26	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	2/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	2/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	2/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	2/12/95

System: HVAC Equipment ID No. : F54A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	207 12/12/95	
Rev.Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42		32021 SH. 19	B5161	AB	14'6"	
	49		32021 SH 19	B5161	AB	14'6"	
	HS8871		32021 SH 19	C80	ĊB	36'6"	NV
	SIAS/SEQ4		32021 SH 19	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : F54B	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE DATE REV. 0	208 12/12/95		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42		32021 SH 20	B6159	AB	14'6"	
	49		32021 SH 20	B6159	AB	14'6"	
	H\$8872		32021 SH 20	C80	CB	36'6"	NV
	SIAS/SEQ4		32021 SH 20	RC02C	CB	36'6"	CA

Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0	Prepared by:	DJR	_ Date:	12/12/95
ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
Operator action. Essential Contact.	REV. 1	Reviewed by:	CB	_ Date:	12/12/95

System: DG

Equipment ID No. : H7A

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2

MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

PAGE 209 DATE 12/12/95 REV. 0

	E	

v. Relay Mfg.& Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Fier	SAT. *
the start and th	# 4(DG-A)		HOING	32041 SH 3 & 4	T040	AB	And in case of the local division of the loc	SAT.
GE-HEA 12HEA63C238	# 4(0G-A) # 43-1(DG-A)	Y/N	NO/NC	32041 SH 3			14'6"	
		T/N	NUINC		C38	AB	14'6"	
	# 43-MSS(DG-A)			32041 SH 3	C08	CB	36'6"	
	# 43-MSS3(DG-A)			32041 SH. 3	C38	AB	14'6"	NV
ITE CLASS J	# 43-MSSX(DG-A)			32041 SH. 3	C38	AB	14'6"	
	# 43-VRMS			32041 SH 11	C08	CB	36'6"	NV
AGASTAT 2422PE	# 5(DG-A)	Y/N	NO/NC	32041 SH 4	T040	AB	14'6"	the stability of static states are a se
	5A			32041 SH 4 & 10	T040	AB	14'6"	
ITE	# 5X			32041 SH. 4	T040	AB	14'6"	
	# CS-65			32041 SH. 9	C08	CB	36'6"	NV
	CS-65A			32041 SH. 9	C38	AB	14'6"	NV
	CS70			32041 SH. 11	C08	CB	36'6"	NV
	CS70A			32041 SH. 11	C38	AB	14'6"	NV
	CS90			32041 SH. 11	C08	CB	36'6"	NV
	CS90A			32041 SH 11	C38	AB	14'6"	NV
	# DGH7A			32041 SH 3	C08	CB	36'6"	NV
ITE	# ESS(DG-A)			32041 SH 6	T040	AB	14'6"	
ITE	# HSR(DG-A)	NC	NO	32041 SH. 3	T040	AB	14'6"	
	# LP1/K530A			32041 SH 6	RC02B	CB	36'6"	
ITE	# LSR(DG-A)			32041 SH. 3	T040	AB	14'6"	
	PB-10			32041 SH. 10	T040	AB	14'6"	NV
	PB-100			32041 SH 3	C38	AB	14'6"	NV
	PB-13			32041 SH. 10	T040	AB	14'6"	NV
	# PB1(DG-A)			32041 SH. 4	T040	AB	14'6"	
	PB12			32041 SH. 10	C38	AB	14'6"	
	# PB15(DG-A)			32041 SH 3	C38	AB	14'6"	
ITE	# SDR (A) (Note 1)	NO	NO	32041 SH 3	T040	AB	14'6"	

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA - Challe acceptable.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:		Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:		Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: DG Equipment ID No.	USI A-46 RELAY SCREENING AI MILLSTONE P DOCUMENT NO. MP2-RELAY.I ENERG			POINT UNIT	POINT UNIT 2 RPT - ASSOCIATED RELAYS			PAGE 210 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&	Type Relay Model No.		Contact	Y/N	NC/NC	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.	
ITE		#	SFR(DG-A)			32041 SH. 3	T040	AB	14'6"	
		#	SSW (250)(DG-A)			32041 SH 4	T040	AB	14'6"	
AGASTAT	E7022PD002	#	TD1(DG-A)	Y/N	NO/NC	32041 SH. 3	T040	AB	14'6"	
ITE			TD1X			32041 SH. 3	T040	AB	14'6"	
AGASTAT	2422DB	#	TD3(DG-A)	Y/N	NO	32041 SH. 3	C38	AB	14'6"	
AGASTAT	2422P8	#	TD4(DG-A)	Y/N	NO	32041 SH. 3	C38	AB	14'6"	
AGASTAT	E7022PB002	#	TD6(DG-A)	Y/N	NC	32041 SH 3	T040	AB	14'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:		Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: DG PAGE 211 **USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2** DATE 12/12/95 Equipment ID No. : H7B DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS REV. 0 ENERG Y/N NO/NC Ref. Drawings(s) Rev. Relay Mfg.&Type Relay Model No. Contact Panel Bldg. Elev. SAT. * # 4(DG-B) 32041 SH. 15, 16 T041 AB 14'6" GE-HEA 12HEA63C238 # 43-1(DG-B) 32041 SH 15 Y/N NO/NC C39 AB 14'6" # 43-MSS(DG-B) 32041 SH. 15 C08 CB 36'6" NV # 43-MSS3(DG-B) 32041 SH 15 C39 AB 14'6" NV # 43-MSSX(DG-B) 32041 SH 15 C39 AB 14'6" # 43-VRMS 32041 SH 23 C08 CB 36'6" NV AGASTAT 2422PE # 5(DG-B) 32041 SH 16 T041 AB Y/N NO/NC 14'6" 5A 32041 SH 16 22 T041 AB 14'6" # 5X 32041 SH 16 T041 AB 14'6" C70 32041 SH.23 C08 CB 36'6" NV C70A 32041 SH 23 City AB 14'6" NV C90 32041 SH 23 1 08 CB 36'6" NV C90A 32041 SH 23 C39 14'6" NV AB # CS-65 32041 SH. 21 C08 CB 36'6" NV CS-65A 32041 SH 21 C39 AB 14'5" NV # DGH7B 32041 SH 15 C08 CB 36'6" NV # ESS(DG-B) 32041 SH 16 T041 AB 14'6" # HSR(DG-B) NO 32041 SH 15 & 16 T041 NO AB 14'6" # LPII/K630A 39047 SH 15 RC02C CB 35'6" # LSR(DG-B) 32041 SH. 15 & 16 T041 AB 14'6" # OPS(DG-B) 32041 SH 16 T041 AB 14'6" # PB1(DG-B) 32041 SH 16 T041 AB 14'6" NV # PB100(DG-B) 32041 SH. 15 C39 AB 14'6" NV PB12 32041 SH 22 C39 AB 14'6" NV # PB15(DG-B) 32041 SH. 15 C39 14'6" NV AB # PB3(DG-B) 32041 SH 17 T041 AB 14'6" NV # SDR (B) (Note 2) NO 32041 SH 15 & 15 NO T041 AB 14'6"

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA - Chatter acceptable.

NV - Not vulnerable (mechanically actuated of	contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:_	12/12/95
SWGR GERS - SWGR Screening based on EP		REV. 0	Reviewed by:	JJB	Date:_	12/12/95
 NA - Component not affected by relays. CR - Corrective action required. 				PC		
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	CB	Date:	12/12/95

System: DG Equipment ID No. : H7B				MILLSTOKE	POINT UNIT	ATION TABULATION		PAGE DATE REV. 0	212 12/12/95
Rev. Relay Mfg.&	Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
		#	SFR(DG-B)			32041 SH 15	T041	AB	14'6"
		#	SSW (250)(DG-B)			32041 SH. 16	T041	AB	14'6"
AGASTAT	2422PC	#	TD1(DG-B)	Y/N	NO/NC	32041 SH 15	T041	AB	14'6"
			TD1X			32041 SH 15	T041	AB	14'6"
AGASTAT	2422PB	#	TD3(DG-B)	Y/N	NO	32041 SH 15 & 16	C39	AB	14'6"
AGASTAT	E7022PC002	#	TD4(DG B)	Y/N	NO	32041 SH 15 & 16	C39	AB	14'6"
AGASTAT	7022PA	#	TD6(DG-B)	Y/N	NC	32041 SH 15 & 16	T041	AB	14'6"

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: _	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

Equipment ID No. : LI-103		NT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s	a) Panel	Bldg.	Elev. SAT. *

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : LI-103-1		A-46 RELAY SCREENING A MILLSTONE I CUMENT NO. MP2-RELAY.	POINT UNIT	2		DATE REV. 0	12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERO Y/N	The second s	Ref. Drawings(s)	Panel	Bidg.	Elev. SAT.*
<u> </u>	None			28500 SH 59			NA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : LI-1113A		USI A-46 RELAY SCREENING A MILLSTONE DOCUMENT NO. MP2-RELAY ENER(POINT UNIT	12		PAGE DATE REV. 0	215 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	and the local data and the local data	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT. *
	None			28500 SH 370				NA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

Equipment ID No. : LI-1113B		CUMENT NO. MP2-RELAY.	3		D1		12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

		Section of the local division of the local d			
		States and the states of the		and the second	

	None	28500 SH 372			NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
Equipment ID No. : LI-1113C		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		DATE REV. 0	12/12/95
System: MS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION		PAGE	217

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

1

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

	None	28500 SH 373			NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
Equipment ID No. : LI-1113D	D	MILLSTONE POINT UNIT 2 DCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95
System: MS USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2					218

 Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
Operator action. Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

. SAT. *

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA -	Chatter	acceptable.
------	---------	-------------

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by: .	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : LI-1123B		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS			220 12/12/95			
Rev. Relay Mig.& Type Relay Model No.	Contact	ENERG Y/N	and the second second	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	None			28500 SH 381				NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: _	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : LI-1123C		USI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY.	OINT UNIT	2		PAGE DATE REV. 0	221 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N	The second second	Ref. Drawings(s)	Panel	Bida.		SAT.*
	None			28500 SH 382		orag.	aller.	NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

.

•

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: MS		USI A-46 RELAY SCREENING AND EVA			PAGE	222	
Enistment ID No. : LI-1123D		MILLSTONE POINT U DOCUMENT NO. MP2-RELAY.RPT - A			DATE REV 0	12/12/95	
		ENERG					
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/N	C Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	None		28500 SH.383				NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

.

.

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
NA	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR	- Corrective action required. - Operator action.	REV. 1 Prepared by:	PC	Date:	12/12/95
	- Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: BA			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2		PAGE	223	
Equipment ID No. : LI-206	DO		RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	None		28500 SH 200				NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0 P	repared by:	DJR	_ Date:	12/12/95
SWGR	 GERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays. 	REV.0 R	eviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1 PI	repared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 Re	eviewed by:	CB	_ Date:	12/12/95

4

Ŷ

5

System: BA Equipment ID No. : LI-208		USI A-46 RELAY SCREENING A MILLSTONE DOCUMENT NO. MP2-RELAY ENERG	POINT UNIT	2		PAGE DATE REV. 0	224 12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT. *
	None			28500 SH 203			NA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : LI-3001		USI A-46 RELAY SCREENING A MILLSTONE P DOCUMENT NO. MP2-RELAY.	POINT UNIT	12			225 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N	and the second se	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	None			28500 SH 400				NA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV 1 Prepared by:		Date:	12/12/95
OA - Operator action. Black - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : LI-3002		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT " DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0	226 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	None	28500 SH 401				NA

	nerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	SWGR Screening based on EPRI-7148-SL nent not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Correc	ive action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	or action. al Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

	None	28500 SH 402	(unor	Didy.		NA NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Flow	SAT. *
Equipment ID No. : LI-3003	D	MILLSTONE POINT UNIT 2 UMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		DATE REV. 0	12/12/95	
System: CVCS	US	46 RELAY SCREENING AND EVALUATION TABULATION		PAGE	227	

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

1

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date: 12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date: 12/12/95

System: CVCS Equipment ID No. : LI-3004		A-46 RELAY SCREENING / MILLSTONE CUMENT NO. MP2-RELAY	POINT UNIT	12		PAGE	12/12/95	
		ENER		CONTED RELATS		REV. 0		
Rev. Relay Mfg.&Typ> Relay Model No.	Contact	Y/N	NO/NC	Ref. Crawings(s)	Panel	Bldg.	Elev.	SAT. *
	None			28500 SH.403				NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

h

0

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

Y

System: COND	USI A	48 RELAY SCREENING A MILLSTONE				PAGE		
Equipment ID No. : LI-5282	DOG	CUMENT NO. MP2-RELAY.		CIATED RELAYS		DATE REV. 0	12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	None			28500 SH 600				NA

A "#" indicates that this relay has multiple occurrences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: .	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7143-SL - Component not affected by relays.	REV. 0	Reviewed by: .	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: COND		USI A-4P RELAY STREENING A				PAGE	230
Equipment ID No. : LI-5282-1		MILLSTONE I DOCUMENT NO. MP2-RELAY	RPT - ASSO	-		DATE REV. 0	12/12/95
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.
	None			28500 SH 600			NA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	GERS - SVVGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : P122A			SI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 231 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.& Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings/s)	Panel	Bidg.	Elev.	SAT. *
	#	42			32023 SH 44	B5224	AB	38'6"	
		49			32023 SH. 44	85224	AB	38'6"	
	#	HS8845			32023 SH 44	C80	CB	36'6"	NV
	#	SIAS/K635A			32023 SH. 44, 39047 SH. 10	RC02B	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EFRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: HVAC Equipment ID No. : P122B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 232 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.		Contact			Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	#	42			32023 SH 45	B6238	AB	36'6"	
		49			32023 SH 45	86238	AB	36'6"	
	#	HS8852			32023 SH 45	C80	CB	36'6"	NV
	#	SIAS/K635B			32023 SH 45, 39047 SH 14	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment ID No. : P18A		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0		
lev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	42			32009 SH. 40	B5103	AB	14'6"	CA
	43-1			32009 SH. 40	C02K	CB	36'6"	CA
CE-HFA 12HFA154B49H	# 43-2			32009 SH. 40	C02R	СВ	36'6"	CA
	43Y			32009 SH. 40	C01R	CB	35'6"	CA
	49			32009 SH. 40	B5103	AB	14'6"	CA
TEL	# 63X			32009 SH. 40	C02R	CB	36'6"	CA
CE-HGA 12HGA11./98G	63X/CH.1			32009 SH. 40	C03R	CB	36'6"	CA
	HS2003A			32009 SH. 40	C02	ĊB	36'6"	NV
	HS2003B			32009 SH. 40	C21	AB	38'6"	NV
	PC224X			32009 SH. 40	LOCAL	AB	-25'6"	CA
	# SEQ. 0/K53	48 NO	NO/NC	39047 SH 11	RC02B	CB	36'6"	CA
	SIAS1/SEQ.	2/K516A		39047 SH 09	RC02B	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: CVCS Equipment D No. : P18B			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				PAGE DATE REV. 0	234 12/12/95	
			ENERC						
Rev.Relay Mfg.	& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
GE-HFA	12HFA151A9H	3-1			32009 SH 41	C02R	CB	36'6"	CA
GE-HFA	12HFA51A62H42	3-2			32009 SH 42	C02R	CB	36'6"	CA
		42			32009 SH 42	85105	AB	14 5"	CA
		42			32009 SH 42	B6105	AB	14'6"	CA
GE-HFA	12HFA151A9H	42X-1			32009 SH 41	C02R	CB	36'6"	CA
GE-HFA	12HFA151A9H	42X-7			32009 SH 41	C02R	CB	36'6"	CA
GE-HGA	12HGA11J98G	42X-3			32009 SH 41	C02R	CB	36'6"	CA
GE-HGA	12HGA11J98G	42X-4			32009 SH 42A	C02R	CB	36'6"	CA
1		42X-7			32009 SH. 41	LOCAL	AB	-25'6"	CA
1		42X-8		and the second	32009 SH. 41	LOCAL	AB	-25'6"	CA
		43-1			32009 SH. 41	C02	CB	36'6"	CA
GE-HFA	12HFA154B49H	# 43-2			32009 SH 41	C02R	CB	36'6"	CA
		43Y			32009 SH 41	C02R	ČВ	36'6"	CA
		49			32009 SH 42	B5105	AB	14'6"	CA
		49			32009 SH 42A	B6105	AB	14'6"	CA
1		5-1/SEQ. 0	NO	NO/NC	39047 SH 15	CO1X	CB	36'6"	CA
		5-2/SEQ. 0	NO	NO/NC	32009 SH 41	CO1X	CB	36'6"	CA
		# 63X	NO	NC	32009 SH. 41	C02R	CB	36'6"	CA
		63X/CH. 5	NO	NC	32009 SH 41	C03R	CB	36'6"	CA
		89	a na anna an an an an an an an ann an an		32009 SH 41	LOCAL	AB	-25'6"	NV
the course of the design of the second sector of		89			32009 SH 42A	LOCAL	AB	-25	NV
	and the second	H\$2004A			32009 SH 41	C02	CB	36'0	NV
		HS2004B			32009 SH 41	C21	AB	38'6"	NV
	and the second	HS2004D	anna an ann ann an tartach a fair an Antair Ann an Ann ann an tartach an ann an tartach an tartach an tartach a		32009 SH 42A	C10	TB	54'6"	NV
		KIRK INTL'K			32009 SH 41	LOCAL	AB	-25'6"	NV
		KIRK INTL'K			32009 SH. 42A	LOCAL	AB	-25'6"	NV
		PC224Y			32009 SH 41	LOCAL	AB	-25'6"	

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	_ Date: _	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	_ Date: _	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV 1 Prepared by		Date:	12/12/95
OA - Operator action.	REV. 1 Frepared by		_ Date	12/12/33
Blank - Essential Contact.	REV. 1 Reviewed by:	CB	_ Date:	12/12/95

System: CVCS Equipment ID No. : P18B		MILLSTONE POINT UNIT 2			12		PAGE DATE REV. 0	235 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(*)	Panel	Bldg.	Elev.	SAT. *
1	#	SEQ. 0/K534B	NO	NO/NC	32009 SH. 42	RC02B	CB	36'6"	
1	#	SEQ. 0/K634B	NO	NO/NC	39047 SH. 15	RC02C	CB	36'6"	CA
		SIAS5/SEQ23A			32009 SH. 41	RC02E	AB	36'6"	CA
		SIAS5/SEQ23B			32039 SH 41	RC02E	AB	36'6"	CA
							the second s		

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: CVCS Equipment ID No. : P18C			USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RP? - ASSOCIATED RELAYS ENEF'S				PAGE 236 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&	Type Relay Model No.	Contact	Y/N	NONC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
		42			32009 SH 43	B6102	AB	14'6"	CA
GE-HFA	HFA151A9H	42X			32009 SH 43	C02	CB	36'6"	ĊA
GE-HFA	12HFA154B49H	# 43-2			39009 SH. 43A	C02R	CB	36'6"	CA
		43X			32009 SH. 43	C02R	CB	36'6"	CA
		43Y			32009 SH. 43	C01R	CB	36'6"	CA
		49			32009 SH. 43	B6102	AB	14'6"	CA
GE-HGA	12HGA11J98G	63X/CH. 2			32009 SH 43	C03R	CB	36'6"	CA
TEL	J20M	63X/J10			32009 SH. 43	C02R	CB	36'6"	CA
		HS2005A			32009 SH 13	C02R	CB	36'6"	NV
		HS2005B			32009 SH 43A	C21	AB	38'6"	NV
		HS2005C	e de la contra de la		32009 SH. 43	C10	TB	54'6"	NV
		HS2005D			32009 SH. 43	C10	TB	54'6"	NV
		PC224Z			32009 SH 43	LOCAL	AB	-25'6"	CA
		SEQ. 0/K634	A NO	NO/NC	32009 SH. 43, 39047 SH. 15	RC02C	CB	36'6"	CA
		SIAS2/SEQ.	2		32009 SH. 43	RC02C	CB	36'6"	CA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: CVCS Equipment ID No. : P19A	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE DATE REV. 0			
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	42			32009 SH 4	B6138	AB	14'6"	
	43X			32009 SH 4	C02	CB	36'6"	CA/OA
	43Y			32009 SH 4	C01R	CB	36'6"	CA
	49			32009 SH 4	B6138	AB	14'6"	
	63XB/LC226			32009 SH 4	C02	CB	36'6"	CA
	HS2001			32009 SH 4	C02	CB	36'6"	NV
	# HS210			32009 SH.4	C04	CB	36'6"	NV
	# HS226			32009 SH 4	C02	CB	36'6"	NV
	PB/START			32009 SH 4	B6138	AB	14'6"	NV
	SEQ 0			32009 SH 4	RC02C	CB	36'6"	CA/OA
	SIAS2/SEQ 2			32009 SH 4	RC02C	CB	36'6"	ĊA

NV - Not	vulnerable (mechanically actuated contacts or solid state relays). REV.	0.1	Prepared by:	DJF	۲	Date:	12/12/95
	- SWGR Screening based on EPRI-7148-SL REV.	. 0	Reviewed by:	JJB		Date:	12/12/95
		1	Prepared by:	PC		Date:	12/12/95
	rator action. ential Contact. REV.	1	Reviewed by:	СВ	I	Date:	12/12/95

System: CVCS Equipment ID No. : P19B	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE DATE REV. 0		
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	42			32009 SH.5	B6139	AB	14'6"	
	43X			32009 SH 5	C02	CB	36'6"	CA/OA
	43Y			32009 SH 5	C01R	CB	36'6"	CA
	49			32009 SH.5	B6139	AB	14'6"	
	63XB/LC226			32009 SH 5	C02R	CB	36'6"	CA
	HS2002			32009 SH 5	C02	CB	36'6"	NV
	# HS210			32009 SH 5	C04	CB	36'6"	NV
	# HS226			32009 SH 5	C02	CB	36'6"	NV
	PB/START			32009 SH 5	B6139	AB	14'6"	NV
	SEQ 0			32009 SH 5	RC02C	CB	36'6"	CA/OA
	SIAS2/SEQ 2			32009 SH 5	RC02C	CB	36'6"	CA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essentiai Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	None		28500 SH 340			NA	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N N	O/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*	
Equipment ID No. : PI-1013A		MILLSTONE POI DOCUMENT NO. Mº2-RELAY.RP			DATE REV. 0	12/12/95	
tem: MS USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2					PAGE 239		

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by: _	DJR	Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by: _	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

Net. Netal ing. s. percenty moder no.	None	28500 SH 341		Diag.	NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
Equipment ID No. : PI-1013B		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95
System: MS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION		PAGE	240

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

...

Equipment ID No. : PI-1013C		DOCUMENT NO. MP2-RELAY.			REV. 0	12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	None		28500 SH 342				NA

A "#" indicates that this relay has multiple occurrences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

۲

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWG	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: MS Equipment ID No. : PI-1013D		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0	242
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT. *
	None	28500 SH 343			NA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	_ Date: _	12/12/95

	None	28500 SH 355			NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev. SAT.*
Equipment ID No. : PI-1023A		MILLSTONE POINT UNIT 2 JOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95
System: MS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION		PAGE	243

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-S!. - Component not affected by relays.	. REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	C8	Date:	12/12/95

System: MS	U	A 46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2		PAGE	244
Equipment ID No. : PI-1023B		OCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		REV. 0	12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
	None	28500 SH.356			NA

NV - Not vulnerable (mechanically actuated contacts or solid st	ate relays). REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

Rev. Relay Mfg.&Type Relay Model No.	Contact None	Y/N NO/NC Ref. Drawings(s) 28500 SH 357	Panel	Bidg.	Elev.	SAT. *
Equipment ID No. : PI-1023C		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		REV. 0	12/12/95	•
System: MS		USI A-46 RELAY SCREENING AND EVALUATION TABULATIO		PAGE	245	

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required. - Operator action.	REV.1	Prepared by:	PC	Date:	12/12/95
	- Essential Contact.	REV. 1 F	Reviewed by:	СВ	Date:	12/12/95

10

.

\$

System: MS Equipment ID No. : PI-1023D	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			246 12/12/95	
Rev. Relay Mfg.& Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
	None	28500 SH 358			NA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : PI-103		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		PAGE DATE REV. 0	247 12/12/95
Rev. Relay Mfg.& Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev. SAT.*
	None	28500 SH 19A			NA

v riepaieu vy.	DJR	Date:	12/12/95
0 Reviewed by	JJB	Date:	12/12/95
1 Prepared by:	PC	Date	12/12/95
1 Reviewed by:	СВ	Date	12/12/95
	0 Reviewed by: 1 Prepared by:	0 Reviewed by:JJB	0 Reviewed by:JJB Date: 1 Prepared by:PC Date:

System: RCS Equipment ID No. : PI-103-1		46 RELAY SCREENING A MILLSTONE F CUMENT NO. MP2-RELAY.	POINT UNIT	12			248 12/12/95	;
Rev. Relay Mfg.& Type Relay Model No.	Contact	ENERG Y/N	The second states and the	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	None			28500 SH 75C				NA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : PZR-LI		USI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY. ENERG	RPT - ASS	2		PAGE DATE REV. 0	249 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	HS110			28500 SH 69B	C03F	CB	36'6"	NV

 NV - Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:			12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

D7D DI		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS	PAGE DATE REV. 0	250 12/12/95
Rev. Relay Mfg.& Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s) Panel	Bldg.	Elev. SAT.*
	None	28500 SH 538		NA
	None	28500 SH 54B		NA

NV -	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL	REV.0	Reviewed by:	JJB	Date:	12/12/95
	- Component not affected by relays. - Corrective action required.		Prepared by:		Date	12/12/95
	- Operator action.					
Blank -	Essential Contact	REV. 1	Reviewed by:	C8	Date:	12/12/95

System: Equipment ID No. : RELAY CSAS	MILLSTONE POINT O DOCUMENT NO. MP2-RELAY.RPT - J		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		DATE 1			251 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*		
1	PT-8113 (Note 5)		39047 SH 1	PT8113	AB	-5'0"	NV		
1	PT-8114 (Note 5)		39047 SH. 2	PT8114	AB	-5'0"	NV		
1	PT-8115 (Note 5)		39047 SH. 3	PT8115	AB	-5'0"	NV		
1	PT-8116 (Note 5)		39047 SH 4	PT8116	AB	-5'0"	NV		

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
10.00	R GERS - SWGR Screening based on EPRI-7148-SL	REV. 0	Reviewed by:	JJB	Date:	12/12/95
NA CR	Component not affected by relays. Corrective action required.	REV. 1	Prepared by:	PC PC	Date:	12/12/95
OA	- Operator action. - Essential Contact.	REV 1	Reviewed by:	СВ	Date:	12/12/95
Blank	- Essenial Contact.	1.16.7.1				

System:

USI A-46 RELAY SCREENING AND EVALUATION TABULATION

PAGE 252

Equipment ID No. : RELAY SDR (A)			MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS			DATE REV. 0		12/12/55		
					ENERO					
Re	v. Relay Mfg.&T	ype Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
1	GE-HEA	12HEA63C238	#	43-1(DG-A)	NO	NO/NC	32041 SH. 7	C38	AB	14'6"
-	AGASTAT	2422PE	#	5(DG-A)	Y/N	NO/NC	32041 SH 7	T040	AB	14'6"
-	GE-HEA	HEA618		86/A312	NO	NO	32041 SH 7	A312	TB	31'6"
	GE-IJD	12IJD52A114		87A/A312	NO	NO	32041 SH 1	A312	TB	31'6"
	GE-IJD	12IJD52A114		87B/A312	NÖ	NO	32041 SH 1	A312	TB	31'6"
	GE-IJD	12IJD52A114		87C/A312	NO	NO	32041 SH 1	A312	TB	31'6"
1				ALR	and the second second and the property of the		32041 SH 7	T040	AB	14'6"
1				CC1			32041 SH 5	T040	AB	14'6"
				CCP1	and a subject of the second		32041 SH 7	T0-30	AB	14'6"
				CF4			32041 SH 6	C38	AB	14'6"
	ITE			CPL			32041 SH 7	T040	AB	14'6"
				CPLA			32041 SH 7	T040	AB	14'6"
				CR1			32041 SH 6	T040	AB	14'6"
				CR2			32041 SH 6	T040	AB	14'6"
	ITE			CT1			32041 SH 5	T040	AB	14'6"
	A second s			CTH1			12041 SH 5	T040	AB	14'6"
			#	DGH7A			32041 SH. 4	C08	CB	36'6" NV
				EOR			32041 SH 7	TC40	AB	14'6"
				EOS			32041 SH 7	T040	AB	14'6"
•	ITE		#	ESS(DG-A)			32041 SH 7	T040	AB	14'6"
	ITE			FPL			32041 SH 7	T040	AB	14'6"
				FPLA			32041 SH 7	T040	AB	14'6"
				IL2			32041 SH 7	T040	AB	14'6"
				LP1			32041 SH 6	RC02B	CB	36'5"
Ì	ITE			OP1			32041 SH 7	T040	AB	14'6"
Ī	ITE			OP2			32041 SH 7	T040	AB	14'6"
-	ITE			OP3			32041 SH 7	T040	AB	14'6"

A "#" indicates that this relay has multiple occurences (i.e. may be found associated with other equipment) in the "Relay Tabulation".

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR	GERS - SWGR Screening based on EPRI-7148-SL	REV 0	Reviewed by	JJB	Date	12/12/95
NA	 Component not affected by relays. 	THE T. O				
CR	- Corrective action required	REV. 1	Prepared by:	PC	Date:	12/12/95
OA	- Operator action.		Deviewed buy	CP	Dete	10/10/05
Blank	- Essential Contact.	REV. 1	Reviewed by.	CB	Date:	12/12/95

System: Equipment ID No. : RELAY SDR (A)	USI A-46 RELAY SCREENING A MILLSTONE I DOCUMENT NO. MP2-RELAY ENERC		253 12/12/95					
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
	OPL1			32041 SH. 7	T040	AB	14'6"	
	OPL2			32041 SH. 7	T040	AB	14'6"	
	OPL3			32041 SH. 7	T040	AB	14'6"	
4	OPS(DG-A)			32041 SH 4	T040	AB	14'6"	
ITE	OTH			32041 SH. 6	T040	AB	14'6"	
	OTHA			32041 SH 6	T040	AB	14'6"	
	PB14			32041 SH 4	C38	ÁB	14'6"	NV
	PB2			32041 SH 4	T040	AB	14'6"	NV
4	# PB21			32041 SH. 7	C08	CB	36'6"	NV
4	# P822			32041 SH 7	C08	CB	36'6"	NV
4	PB3(DG-A)			32041 SH 5	T040	AB	14'6"	NV
	PB31			32041 SH 7	C38	ÁB	14'6"	NV
	PB32			32041 SH. 7	C38	AB	14'6"	NV
ITE	# SFR(DG-A)			32041 SH 7	T040	AB	14'6"	
	# SSW (810)(DG-A)		32041 SH. 4	T040	AB	14'6"	armitelin in constantin to a ser
AGASTAT E7022PD002	TD1(DG-A)	Y/N	NO/NC	32041 SH 7	T040	AB	14'6"	
	TD2			32041 SH. 7	T040	AB	14'6"	
AGASTAT E7022PB002	# TD6(DG-A)	Y/N	NC	32041 SH 7	T040	AB	14'6"	
	# TD7(DG-A)	Y/N	NO	32041 SH 7	T040	AB	14'6"	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: Equipment ID No. : RELAY SDR (B)				USI A-46 RELAY SCREENING AN MILLSTONE P DOCUMENT NO. MP2-RELAY.F		PAGE 254 DATE 12/12/95 REV. 0				
				ENERG						
lev.Relay Mfg.&T)	pe Relay Model No.		Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
GE-HEA	12HEA63C238	#	43-1(DG-B)	NO	NO/NC	32041 SH. 19	C39	AB	14'6"	
AGASTAT	2422PE	#	5(DG-B)	Y/N	NO/NC	32041 SH. 19	T041	AB	14'6"	
GE-HEA	HEA61B		86/A401	NO	NO	32041 SH 19	A401	TB	56'6"	
GE-IJD	12IJD52A11A		87A/A401	NO	NO	32041 SH 19	A401	TB	56'6"	
GE-IJD	12IJD52A11A		87B/A401	NO	NO	32041 SH 19	A401	TB	56'6"	
GE-IJD	12IJD52A11A		87C/A401	NO	NO	32041 SH. 19	A401	TB	56'6"	
			ALR			32041 SH 19	T041	AB	14'6"	
			CC1	record ad as black where the record is a second		32041 SH. 17	T041	AB	14'6"	
			CCPA			32041 SH 19	T041	AB	14'6"	
			CPL			32041 SH. 19	T041	AB	14'6"	
			CR1			32041 SH. 18	T041	AB	14'6"	
			CR2			32041 SH 18	T041	AB	14'6"	
			CR4			32041 SH. 18	C39	AB	14'6"	
			CT1			32041 SH. 17	T041	AB	14'6"	
			CTH1			32041 SH 17	T041	ÁB	14'6"	
		#	DGH7B			32041 SH. 16	C08	CB	36'6"	NV
			EOR			32041 SH. 16	T041	AB	14'6"	
			EOS			32041 SH 19	T041	AB	14'6"	
		#	ESS(DG-B)			32041 SH 19	T041	AB	14'6"	
			FPL			32041 SH 17	T041	AB	14'6"	
			FPLA		and the second second second	32041 SH 19	T041	AB	14'6"	
			IL2			32041 SH 19	T041	AB	14'6"	
			LP2/SEQ.0			32041 SH 18	RC02C	ĊB	36'6"	
			OP1			32041 SH 19	T041	AB	14'6"	
			OP2			32041 SH 19	T041	AB	14'6"	
			OP3			32041 SH 19	T041	AB	14'6"	
		-	OPL1			32041 SH. 19	T041	AB	14'6"	

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

equipment ID No. : RELAY SDR (B)		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG				PAGE 255 DATE 12/12/95 REV. 0			
ev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*	
	OPL2			32041 SH. 19	T041	AB	14'6"		
	OPL3			32041 SH. 19	T041	AB	14'6"		
	# OPS(DG-B)			32041 SH 16	T041	AB	14'6"		
	OTH			32041 SH 18	T041	AB	14'6"		
	OTHA			32041 SH 18	T041	AB	14'6"		
	PB14			32041 SH. 16	C39	AB	14'6"	NV	
	PB2			32041 SH 16	T041	AB	14'6"	NV	
	# PB21			32041 SH 19	C08	CB	36'6"	NV	
	# PB22			32041 SH. 19	C08	CB	36'6"	NV	
	# PB3(DG-B)			32041 SH 17	T041	AB	14'6"	NV	
	PB31			32041 SH. 19	C39	AB	14'6"	NV	
	PB32			32041 SH 19	C39	AB	14'6"	NV	
	# SFR(DG-B)			32041 SH 19	T041	AB	14'6"		
	# SSW (810)(D)G-B)		32041 SH. 16	T041	AB	14'6"		
AGASTAT 2422PC	# TD1(DG-B)	Y/N	NO/NC	32041 SH 19	T041	AB	14'6"		
	TD2			32041 SH. 19	T041	AB	14'6"		
and the second	# TD6(DG-B)	Y/N	NC	32041 SH 19	T041	AB	14'6"		
	# TD7(DG-B)	Y/N	NO	32041 SH 19	T041	AB	14'6"		

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL	REV. 0 Reviewed by:	JJB	Date:	12/12/95
NA - Component not affected by relays. CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact	REV. 1 Reviewed by:	СВ	Date:	12/12/95
Blank - Essential Contact.	NEV. I Honorod by.			1.00/ 1.00/ 5

System: Equipment ID No. : RELAY SIAS	USI A-46 RELA DOCUMENT		PAGE 256 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	PT-102A (Note 5)		39047 SH 1	PT102A	CE	-3'6"	NV
1	PT-102B (Note 5)		39047 SH. 2	PT102B	CE	-3'6"	NV
1	PT-102C (Note 5)		39047 SH. 3	PT102C	CE	-3'6"	NV
1	PT-102D (Note 5)		39047 SH 4	PT102D	ČE	-3'6°	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: Equipment ID No. : RELAY SRAS	USI A-46 RELA		257 12/12/95				
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENER(Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
1	LT-3001 (Note 5)		39047 SH. 1	LT3001	YD	14'6"	NV
1	LT-3002 (Note 5)		39047 SH 2	LT3002	YD	14'6"	NV
1	LT-3003 (Note 5)		39047 SH. 3	LT3003	YD	14'6"	NV
1	LT-3004 (Note 5)		39047 SH 4	LT3004	YD	14'6"	NV

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	_ Date:	12/12/95

ystem: MS quipment ID No. : SV-4188		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			PAGE 258 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/	NC Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*
	42/C		32020 SH. 49 & 49A	NSV4188	TB	1'6"	
	42/0		32020 SH. 49 & 49A	NSV4188	TB	1'6"	
	49-0LR		32020 SH 49 & 49A	NSV4188	TB	1'6"	
	HS4188A		32020 SH 49 & 49A	C05	CB	36'6"	NV
	HS4188B		32020 SH 49 & 49A	C21	AB	38'6"	NV
	# HS4188C		32020 SH 49 & 49A	C10	TB	54'6"	NV
	# HS4188D		32020 SH 49 & 49A	C10	TB	54'6"	NV

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

Kev. Kelay mig.a type Kelay model no.	None		28500 SH 79	Faiter	Bidg.	NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N	NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT. *
Equipment ID No. : TI-112CA		DOCUMENT NO. MP2-RELAY	RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95
System: RCS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2			PAGE 259	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV.0 P	Prepared by:	DJR	Date	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV.0 R	Reviewed by:	JJB	Date:	12/12/95
	- Corrective action required.	REV. 1 P	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1 R	Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : TI-112CC		USI A-46 RELAY SCREENING A MILLSTONE F DOCUMENT NO. MP2-RELAY ENERG	POINT UNIT	2		PAGE DATE REV. 0	260 12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N	The second s	Ref. Drawings(s)	Panel	Bldg.	Elev. SAT. *
	None			28500 SH 82			NA

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
SWGF	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact	REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

	None	28500 SH 85			NA
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
Equipment ID No. : TI-112HA		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95
System: RCS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION		PAGE 261	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:12/12/95
SWGF. GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:12/12/95

Rev. Relay mig. a Type Relay model no.	None	28500 SH 84	ratiet	Bldg.	Elev. SAT.*
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Plde	Fine DAT .
Equipment ID No. : TI-112HB		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95
System: RCS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION		PAGE 262	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date	12/12/95
SWGR	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

	None	28500 SH 86			NA	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SA	т. •
Equipment ID No. : TI-112HC		MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		DATE REV. 0	12/12/95	
system: RCS		USI A-45 RELAY SCREENING AND EVALUATION TABULATION		PAGE 263		

NV - Not vulnerable (me	chanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date: _	12/12/95
SWGR GERS - SWGR Scr NA - Component not affe	eening based on EPRI-7148-SL	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action re		REV. 1	Prepared by:	PC	_ Date: _	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	CB	_ Date: _	12/12/95

System: RCS Equipment ID No. : TI-112HD		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		PAGE DATE REV. 0	264 12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev. SAT.*
	None	28500 SH.87			NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

12

NV - Not vulnerable (mechanically actuated contacts or solid state relays). REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: _	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	CB	Date:	12/12/95

Rev. Relay Mfg.&Type Relay Model No.	Contact None	Y/N NO/NC Ref. Drawings(s) Panel 28500 SH 80	Bidg.	Elev. SAT. *		
Equipment ID No. : TI-122CB		DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG	REV. 0	12/12/95		
System: RCS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2		MILL STONE POINT UNIT 2		265

NV -	Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
	ERS - SWGR Screening based on EPRI-7148-SL Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
	Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
	Operator action. Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: RCS Equipment ID No. : TI-122CD		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG			266 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact		O/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SA1.*
	None		28500 SH 83		11.00	NA

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV.0	Prepared by:	DJR	Date:	12/12/95
	GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator ación. - Essential Contact.	REV. 1	Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : TI-122HA		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE DATE REV. 0	267 12/12/95
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev. SAT.*
	None	28500 SH 85			NA

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by: _	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by: .	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by: .	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: RCS Equipment ID No. : TI-122HB	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS		PAGE DATE REV. 0	268 12/12/95	
Rev. Relay Mfg.&Type Relay Model No.	Contact	ENERG Y/N NO/NC Ref. Drawings(s)	Panel	Bidg.	Elev. SAT.*
	None	28500 SH 84			NA

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

.

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWO	SR GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blan	- Operator action. k - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

Equipment ID No. : TI-122HC Rev. Relay Mfg.&Type Relay Model No.	Contact	IMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG Y/N NO/NC Ref. Drawings(s) Panel Bidg. Elev.	SAT.*
	Contract	ENERG	

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

	None			28500 SH 87				NA
Rev. Reiay Mfg.&Type Relay Model No.	Contact	ENERG Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT.*
Equipment ID No. : TI-122HD		DOCUMENT NO. MP2-RELAY.	RPT - ASSO			DATE REV. 0	12/12/95	5
System: RCS		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2		PAGE	270			

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory. CA - Chatter acceptable.

14

NV - Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0 Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-7148-SL NA - Component not affected by relays.	REV. 0 Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.	REV. 1 Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.	REV. 1 Reviewed by:	СВ	Date:	12/12/95

System: LPSI		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG		PAGE	271	
Equipment ID No. : TR-351				DATE 12/12/93 REV. 0		
Rev. Relay Mfg.&Type Relay Model No.	Contact	Y/N NO/NC Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
	None	28500 SH 297	en terretari			NA
	None	28500 SH 296				NA

NV	 Not vulnerable (mechanically actuated contacts or solid state relays). 	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGF	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR	- Corrective action required.	REV. 1	Prepared by:	PC	Date:	12/12/95
OA Blank	- Operator action. - Essential Contact.	REV. 1	Reviewed by:	CB	Date:	12/12/95

System: HVAC Equipment ID No. : X169AC				USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS ENERG					PAGE 272 DATE 12/12/95 REV. 0		
Rev. Relay Mfg.8	Type Relay Model No.		Contact	YIN		Ref. Drawings(s)	Panel	Bidg.	Elev.	SAT.*	
		#	42			32023 SH. 58	B5235	AB	38'6"	CA	
		#	42			32023 SH 44	B5224	AB	38'6"	CA	
Contraction of Contraction of Contraction of Con-		#	49			32023 SH. 58	B5235	AB	38'6"	CA	
GE-HGA	12HGA11J98G		90T			32023 SH 58	X169A	TB	14'6"	CA	
1		#	HPC			32023 SH 58, 29136 SH 81	X169A	TB	14'6"	CÁ	
		#	HS8845			32023 SH. 44	C80	CB	36'6"	NV	
		#	HS9855			32023 SH 58	X169A	TB	14'6"	NV	
1			LPC			32023 SH. 58, 29136 SH. 81	X169A	TB	14'6"	CA	
1		#	LTC(X169A)			32023 SH. 58, 29136 SH. 81	X169A	TB	14'6"	CA	
1		#	MP	YES	NO	32023 SH. 58, 29136 SH. 81	X169A	TB	14'6"	CA	
1		#	OPC(X169A)			32023 SH. 58, 29136 SH. 81	X169A	TB	14'6"	CA	
		#	SIAS/K635A			32023 SH. 44, 39047 SH. 14	RC02B	CB	36'6"	CA	
1		#	TC			32023 SH 58, 29136 SH 81	X169A	TB	14'6"	CA	

NV - Not vulnerable (mechanically actuated contact	cts or solid state relays).	REV. 0	Prepared by:	DJR	Date:	12/12/95
SWGR GERS - SWGR Screening based on EPRI-71 NA - Component not affected by relays.	48-SL	REV. 0	Reviewed by:	JJB	Date:	12/12/95
CR - Corrective action required.		REV. 1	Prepared by:	PC	Date:	12/12/95
OA - Operator action. Blank - Essential Contact.		REV. 1	Reviewed by:	CB	Date:	12/12/95

System: HVAC Equipment ID No. : X169BC		MILLSTONE	USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS				PAGE 273 DATE 12/12/95 REV. 0		
Rev.Relay Mfg.&	Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bldg.	Elev.	SAT. *
		# 42			32023 SH 45	B6238	AB	36'6"	CA
		# 42			32023 SH. 59	B6241	AB	36'6"	CA
		# 49			32023 SH 59	B6241	AB	36'6"	CA
GE-HGA	12HGA11J98G	90T			32023 SH 59	X169B	TB	14'6"	CA
1		# HPC		and and the second second	32023 SP. 59, 29136 SH. 81	X169B	TB	14'6"	
		# HS8852			32023 SH. 45	C80	CB	36'6"	
		# HS9856			32023 SH 59	X169B	TB	14'6"	NV
1		LPC			32023 SH. 59, 29136 SH. 81	X169B	TB	14'6"	
1		# LTC(X169	B)		32023 SH. 59, 29136 SH. 81	X169B	TB	14'6"	
1		# MP	YES	NO	32023 SH 59, 29136 SH 81	X169B	TB	14'6"	
1		# OPC(X16	B)		32023 SH. 59, 29136 SH. 81	X169B	TB	14'6"	and the second second
		# SIAS/K63	В		32023 SH 45, 39047 SH 14	RC02C	СВ	36'6"	
1	and the second second	# TC			32023 SH. 59, 29136 SH. 81	X169B	TB	14'6"	

NV	- Not vulnerable (mechanically actuated contacts or solid state relays).	REV. 0	Prepared by:	DJR	_ Date:	12/12/95
NA	R GERS - SWGR Screening based on EPRI-7148-SL - Component not affected by relays.	REV. 0	Reviewed by:	JJB	_ Date:	12/12/95
CR	- Corrective action required. - Operator action.	REV. 1	Prepared by:	PC	_ Date:	12/12/95
	- Essential Contact.	REV. 1	Reviewed by:	СВ	_ Date:	12/12/95

USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - ASSOCIATED RELAYS

PAGE 274 DATE 12/14/95 REV. 0

NOTES:

- 1. See Tabulation sheet for Relay SDR (A) for additional relays/contacts.
- 2. See Tabulation sheet for Relay SDR (B) for additional relays/contacts.
- See Tabulation sheet for F38A for additional relays/contacts.
- See Tabulation sheet for F38B for additional relays/contacts.
- 5. A seismic evaluation of this transmitter is required to ensure that integrity of the control circuit is not lost.
- 6. See Tabulation sheet for Relay CSAS for additional relays/contacts.
- 7. See Tabulation sheet for Relay SIAS for additional relays/contacts.
- 8. See Tabulation sheet for Relay SRAS for additional relay //contacts.

9. Chatter of the contacts associated with this relay are acceptable provided Switch HS-210 at Panel C04 is placed in the "BORATE" position following the seismic event.

10. Chatter of the contacts associated with this relay are acceptable provided Switch HS2512 at Panel C04 is placed in the "CLOSE" position following the seismic event.

11. Chatter of the contacts associated with this relay are acceptable provided Switch HS6389 at Panel C06 is placed in the "OPEN" position following the seismic event.

12. Chatter of the contacts associated with this relay are acceptable provided Switch HS6397 at Panel C06 is placed in the "OPEN" position following the seismic event.

- 13. See Tabulation sheet for Breaker A302 for additional relays/contacts.
- 14. See Tabulation sheet for Breaker A312 for additional relays/contacts.
- 15. See Tabulation sheet for Breaker A401 for additional relays/contacts.
- 16. See Tabulation sheet for Breaker A41 1 for additional relays/contacts
- 17. Contact chatter may trip the breaker. If this occurs, it is acceptable because the diesel generator win start as a result of loss of off-site power.

18. Contact chatter could result in a momentary change of state for the applicable equipment. Chatter is acceptable since the device will return to its required state following the earthquake.

USI A-46 RELAY EVALUATION REPORT FOR MILLSTONE UNIT 2

.

ATTACHMENT C

l

MILLSTONE UNIT 2 RELAY SCREENING AND EVALUATION TABULATION "ESSENTIAL RELAYS"

(100 Pages)

USI A-46 RELAY EVALUATION REPORT FOR MILLSTONE UNIT 2

ATTACHMENT D

MILLSTONE UNIT 2 USI A-46 RELAY SCREENING AND EVALUATION TABULATION "LOW RUGGEDNESS RELAYS"

(2 Pages)

System: Equipment ID No. : RELAY SDR (A)			USI A-46 RELAY SCREENING AI MILLSTONE P DOCUMENT NO. MP2-RELAY.RPT ENERG	PAGE 1 DATE 12/12/95 REV. 0				
Rev. Relay Mfg.	& Type Relay Model No.	Contact	Y/N		Ref. Drawings(s)	Panel	Bidg.	Elev. SAT. *
GE-IJD	12IJD52A114	87A/A312	NO	NO	32041 SH. 1	A312	ТВ	31'6"
GE-IJD	12IJD52A114	87B/A312	NÖ	NO	32041 SH. 1	A312	TB	31'6"
GE-IJD	12IJD52A114	87C/A312	NO	NÔ	32041 SH. 1	A312	TB	31'6"

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

-

-

CA	- Chatter acceptable.	REV. 0 Prepared by: _	DJR	Date	12/12/95
NV GERS	 Not vulnerable (mechanically actuated contacts or solid state relays). Seismically adequate based on GERS; include GERS number. 	REV. 0 Reviewed by:	and the second second	Date:	12/12/95
NACR	Component not affected by relays. Corrective action required.	REV. 1 Prepared by:		Date:	12/12/95
OA	- Operator action. - No entry necessary.	REV. 1 Reviewed by	CB	Date:	12/12/95

System: Equipment ID No. : RELAY SDR (B)		USI A-46 RELAY SCREENING AND EVALUATION TABULATION MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - LOW RUGGEDNESS RELAYS ENERG						
Type Relay Model No.	Contact	Y/N	NO/NC	Ref. Drawings(s)	Panel	Bidg.	Elev. SAT. *	
12IJD52A11A	87A/A401	NO	NO	32041 SH. 19	A401	ТВ	56'6"	
12IJD52A11A	87B/A401	NO	NO	32041 SH. 19	A401	TB	56'6"	
12IJD52A11A	87C/A401	NO	NO	32041 SH. 19	A401	TB	56'6"	
	Type Relay Model No. 12IJD52A11A 12IJD52A11A	Type Relay Model No. Contact 12IJD52A11A 87A/A401 12IJD52A11A 87B/A401	RELAY SDR (B) MILLSTONE P DOCUMENT NO. MP2-RELAY.RPT ENERG Type Relay Model No. Contact 12IJD52A11A 87A/A401 12IJD52A11A 87B/A401	MILLSTONE POINT UNIT DOCUMENT NO. MP2-RELAY.RPT - LOW RU ENERG Type Relay Model No. Contact 12IJD52A11A 87A/A401 NO 12IJD52A11A 87B/A401 NO	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - LOW RUGGEDNESS RELAYS ENERG Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) 12IJD52A11A 87A/A401 NO NO 32041 SH 19 12IJD52A11A 87B/A401 NO NO 32041 SH 19	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - LOW RUGGEDNESS RELAYS ENERG Type Relay Model No. Contact Y/N NO/NC Ref. Drawings(s) Panel 12IJD52A11A 87A/A401 NO NO 32041 SH. 19 A401 12IJD52A11A 87B/A401 NO NO 32041 SH. 19 A401	MILLSTONE POINT UNIT 2 DOCUMENT NO. MP2-RELAY.RPT - LOW RUGGEDNESS RELAYS DATE 12/12 ENERG NO/NC Ref. Drawings(s) Panel Bidg. 12IJD52A11A 87B/A401 NO NO 32041 SH. 19 A401 TB	

* Identify reason for Contact/Contact Group being satisfactory or unsatisfactory.

CA	- Chatter acceptable.	REV. 0 Prepared by.	DJR	Date	12/12/95
NV GERS	 Not vulnerable (mechanically actuated contacts or solid state relays). Seismically adequate based on GERS; include GERS number. 	REV. 0 Reviewed by		Date:	12/12/95
NA	Component not affected by relays. Corrective action required.	REV. 1 Prepared by:		Date:	12/12/95
OA	- Operator action. - No entry necessary.	REV. 1 Reviewed by	СВ	Date:	12/12/95

USI A-46 RELAY EVALUATION REPORT FOR MILLSTONE UNIT 2

ATTACHMENT E

RESUME OF LEAD RELAY REVIEWER

(7 Pages)

CHARLES E. BECK, P.E.

EDUCATION

Ph.D. Candidate, Electrical and Computer Engineering, Illinois Institute of Technology (IIT) MS, Electrical and Computer Engineering, IIT BS, Electrical Engineering, University of Notre Dame

FORMAL TRAINING

- US Navy Nuclear Power School
- SQUG "Equipment Selection" and "Relay Evaluation" training courses (by MPR Associates)
- BWR "Introduction to Power Plant Operation" (by Commonwealth Edison Company)
- "Electrical Power System Survey" course (by Commonwealth Edison Company)
- "Nuclear Codes, Standards, and Regulatory Requirements" (by General Physics Corporation)
- "Fire Protection for Power Plants" (by Professional Loss Control)
- "Project Engineer" and "Project Management" training courses (by ABB Impell Corporation)

PROFESSIONAL AFFILIATIONS

Licensed Professional Engineer in IL, MA, MI, MN, and WI

Senior Member - Institute of Electrical and Electronics Engineers (IEEE)

Member - American Nuclear Society

- National Society of Professional Engineers
- National Fire Protection Association
- Program Committee for the American Power Conference

CHARLES E. BECK, P.E.

Page Two

PROFICIENCIES

Analysis, Design, and Modifications for Electrical Systems.

Nuclear Station Systems Engineering.

IEEE Standards, NEMA Standards, NUREGs, NRC Generic Letters & Information Notices. 10CFR21, 10CFR50 (Appendix B) and 10CFR50.59.

Developing Test Plans and Performing Electrical Tests. Technical Writing.

Computer-aided Power System Analysis.

Large-scale Project Management.

EXPERIENCE SUMMARY

Mr. Beck is the Engineering Manager for Kiran Consultants, Incorporated. His project management responsibilities include assuring compliance with client requirements, scheduling and monitoring major tasks, optimizing the use of personnel and other resources, and controlling project budgets. He has performed detailed system reviews for Licensee Event Reports, operability issues, NRC Information Notices, and Root Cause Investigations. He wrote test plans, conducted laboratory tests, and wrote test reports on safety-related relays and motors. He wrote a training program for motor refurbishment, including the Student Handout, the Instructor's Guide, and visual aids.

Previous experience includes a multi-million dollar, four year, multi-disciplinary, Human Factors project to upgrade Annunciator Systems. Other DCRDR projects include modifications to Control Room Lighting and HVAC, Control Panel layout, and DG Control Systems.

Mr. Beck was the "Lead Relay Reviewer" for a SQUG Relay Evaluation. He has performed and reviewed calculations and design changes for Motor-Operated Valves, in response to Generic Letter 89-10 requirements. He has provided audit support and other consulting services, including EDSFI preparations, DET support, and ECCS System logic reviews. He has extensive design experience in minor plant changes, ranging from simple relay substitutions, to reactor mode switch rewiring, to replacements of Station Batteries. He has performed operability assessments for potentially degraded systems, reviewed mechanical and structural modifications for electrical interactions, and performed Safety Evaluations and Technical Quality Reviews to assure acceptability of designs.

CHARLES E. BECK, P.E.

EXPERIENCE SUMMARY (Cont'd)

Mr. Beck directs a section of seven engineers. He is responsible for ensuring technical quality and client satisfaction, for productivity, and for training. His section performs specialty consulting tasks related to power system analysis, topical issues (such as motor operated valves), component testing, and environmental qualification of electrical equipment. Included with these tasks are verification of compliance with applicable codes, standards, regulations, and client-specific procedures.

Mr. Beck has twenty years of experience in the operation, maintenance, and design of nuclear power plants. This includes four years with ComEd's BWR Engineering Department, where he performed all phases of modification design. He held a two-year assignment at Quad Cities Nuclear Station, in the role of onsite representative of the corporate engineering office. He was involved in over fifty significant projects as a BWR design engineer, including modifications, conceptual studies, operability assessments, and responses to Nuclear Licensing issues.

Mr. Beck served in the US Navy Nuclear Program for nine years, supervising up to 130 operators and technicians. He was responsible for Electrical Distribution and Reactor Control on three nuclear powered ships. With his background as a navy nuclear operator and as a BWR design engineer, he has performed project work from both the Electrical and the Systems Engineering perspectives.

TECHNICAL PUBLICATIONS

"Expert System Applications in Nuclear Plants: Discussion of the Key Issues, "IEEE Transactions on Nuclear Science v39 n5: 1992.

"Concepts of Reactor Physics, Without the Mathematics, "IEEE Transactions on Nuclear Science v39 n3, Part II: 1992.

"Video/CAD Animation: A Technical Tool to Simplify the Human Task In Nuclear Plant Maintenance," Conference Record, IEEE SMC International Conference: 1992.

"Addressing External Constraints for AI in Nuclear Power Applications," Conference Record, IEEE Nuclear Science Symposium: 1992.

"Minimizing Installation Impact of Human Factors Projects," Conference Record, IEEE Nuclear Science Symposium: 1992.

CHARLES E. BECK, P.E.

TECHNICAL PUBLICATIONS (Cont'd)

"A Bibliography of Expert Systems as Applied to Nuclear Power Plants," IEEE Transactions on Energy Conversion v8 n1: 1993.

"Modelling External Constraints: Applying Expert Systems to Nuclear Plants," Proceedings of the American Power Conference: 1993.

"Impact of Transient Inrush on MCV Starting" Conference Record of the 1993 IEEE Nuclear Science Symposium, San Francisco, CA: 1993.

"Modelling of Nuclear Plant System Interactions Using a 'Layered-Data' Concept." IEEE Transactions on Nuclear Science v41 n4, Part I: 1994.

"On-Site Motor Refurbishment Shop." Conference Record of the 1994 IEEE Nuclear Science Symposium, Norfolk, VA: 1994.

"Analysis of Simultaneous Unbalanced Faults Using Three-Port Network Theory," Proceedings of the American Power Conference: 1995.

"A Qualification Test for Relay Contacts as Isolation Devices in Nuclear Power Plants," accepted for IEEE Transactions on Nuclear Science: 1995.

Organizer, Chairman, and Moderator for the "Nuclear DC Systems Roundtable," a technical presentation and panel discussion in the American Power Conference: 1993 - 1995.

JAMES J. BUCKLEY

SPECIALTIES

Sec.

ELECTRICAL ENGINEERING AND DESIGN

PROFESSIONAL EXPERIENCE

Mr. Buckley is the Supervisor of Design and Drafting for VECTRA's Boston office Design/Engineering Section of the Electrical Systems Division. He has over 24 years of experience in the engineering, design and installation of electrical systems for power generation and various industrial facilities including pulp and paper projects and water/ sewerage treatment plants.

Mr. Buckley has attended the SQUG training course for Safe Shutdown Equipment Selection and Relay Screening and Evaluation which qualifies him as a Lead Relay Reviewer. Presently, Mr. Buckley is the Lead Relay Reviewer for the identification of USI A-46 and IPEEE Safe Shutdown Equipment and Relays for Philadelphia Electric Company (PECo) Peach Bottom Atomic Power Station Units 2 and 3. The overall project scope is to retrieve each electrical component from the Safe Shutdown List for Relay Svaluation and review schematics, wiring diagrams and loop diagrams associated with each component to identify relays required to be verified as seismically adequate per the requirements of the SQUG Generic Implementation Procedure (GIP). He has also been the Lead Relay Reviewer for the Public Service Electric and Gas Company (PSE&G) Salem Generating Station Units 1 and2, Northeast Utilities Service Company (NUSCO) for Connecticut Yankee and Millstone Units 1 and 2 and the Boston Edison Company Pilgrim Nuclear Power Station.

Prior to this assignment, he was the Project Engineer for the Boston Edison Pilgrim Station Annunciator Project, which performed a complete redesign of the existing system including the preparation of three Plant Design Change (PDC) packages. The project scope was to rearrange the Control Room annunciator windows and revise the associated electrical schematics, wiring diagrams, cable block diagram, cable and raceway schedules, process and instrumentation diagrams and functional control diagrams.

Previously, Mr. Buckley served as Lead Engineer for the Electric Load Management System project, a data collection effort for NUSCO's Millstone Unit 1 Station. He also held the same position for an identical project at NUSCO's Connecticut Yankee Station.

JAMES J. BUCKLEY

EXPERIENCE (Cont.)

Prior to this assignment, Mr. Buckley was assigned to the Carolina Power and Light, Brunswick Plant, Appendix R separation analysis documentation review. He also supported the Niagara Mohawk, Nine Mile Unit 1, project which consisted of 125VDC system modifications, fuse and molded-case switch additions to the 125VDC distribution boards and addition of battery monitoring systems for 125VDC batteries. In a previous assignment, he was a Project Engineer on the Commonwealth Edison, Dresden Unit 2 Annunciator Modifications Project. This modification addressed the human engineering deficiencies associated with the plant annunciator system. Changes to the system included auditory coding, ringback and flashrate adjustment and reflash. These changes resulted in extensive revisions to the plant's wiring and schematic drawings.

Previously, he was the Lead Electrical Design/Engineer for the No. 4 Chemical Recovery Boder Project for Miramichi Pulp and Paper. His responsibilities included checking electrical specifications and calculations, development of the wiring design for connection of field cables as well as the design of raceways, grounding, lighting, etc.

His earlier assignments at VECTRA included experience in an as-built verification of wiring diagrams for control panels and the development of design change packages required to resolve any deficiencies and updating all affected drawings for Boston Edison's Pilgrim Station. Other activities at Pilgrim Station included lighting design of the Computer Room, answering Engineering Service Requests (ESR), issuing and resolving Potential Conditions Adverse to Quality (PCAQ), writing and implementing Maintenance Work Request (MWR), evaluating plant conditions for circuit isolations and the preparing Appendix R Plant Design Change Packages. These packages included cable rerouting, and the installation of fire detection and suppression systems.

His previous assignments include a staff position on the Equipment Qualification Program team for Northeast Utilities and at the Seabrook Station which also included walkdown assignments. Earlier assignments with VECTRA include the electrical design of the Appendix R Emergency Lighting System for Connecticut Yankee.

In an assignment at the NYPA Fitzpatrick plant, Mr. Buckley was responsible for coordinating the ir stallation of electrical modifications in accordance with 10 CFR 50, Appendix R. His responsibilities included the layout of equipment, conduit routing and design of conduit supports.

JAMES J. BUCKLEY

Page Three

EXPERIENCE (Cont)

Mr. Buckley previously worked with the C.T. Main Corporation Pulp and Paper Division where he was responsible for the electrical design of recovery boiler systems including precipitators, evaporators, and air compressors for the Ngodwana Mill Expansion Program in South Africa. In connection with this work, he was also responsible for raceway layout and design, and field engineering support. He prepared the secondary electrical power drawings, motor control center arrangements, computerized cable schedules, and related PLC drawings. He was assigned to the site for four months for the checkout and start-up of the recovery boiler, and the review of the electrical subcontractor's work. Other projects included the design of paper machines, power boilers, coal and wood yards and turbine generators.

With Metcalf & Eddy, Mr. Buckley was involved in the electrical design of various water and sewerage treatment plants. His work included a three month field assignment to determine the sources of computer analog and digital inputs associated with the computerization of an existing sewage treatment plant in St. Paul, Minnesota. In an earlier assignment, he spent three months overseas providing engineering support for the construction of military air base facilities in the Kingdom of Saudi Arabia.

EDUCATION

Attended Northeastern University's Lincoln College

USI A-46 RELAY EVALUATION REPORT FOR MILLSTONE UNIT 2

ATTACHMENT F

MILLSTONE UNIT 2 SUMMARY OF SEISMIC CAPACITY EVALUATION FOR ESSENTIAL RELAYS

(15 Pages)

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID ATTACHMENT F

Date: 12/12/95 Page:1

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
52-B0502					22E	WEST 480V SWGR	OK***	
52-80506					22E	WEST 480V SWGR	OK***	
52-80507					22E	WEST 480V SWGR	OK***	
52-80606	ter teneren en deren er			-	22F	EAST 480V	OK***	
52-80607					22F	EAST 480V	OK***	
52-B0610					22F	EAST 480V	OK***	
52-B0611					22F	EAST 480V	OK***	
52Y-A302			and the second sec		24C	LOWER 4160V	SWGR GERS	
52Y-A305					24C	LOWER 4160V	SWGR GERS	
52Y-A307					246	LOWER 4160V	SWGR GERS	
52Y-A208					24C	LOWER 4160V	SWGR GERS	
52Y-A309					24C	LOWER 4160V	SWGR GERS	
52Y-A311					24C	LOWER 4160V	SWGR GERS	
52Y-A312					24C	LOWER 4160V	SWGR GERS	
81-A312	GE-CFF	12CFF12AG3A	NO	NO	24C	LOWER 4160V	SWGR GERS	
81/X-A312	GE-CFF	12CFF12AG3A	NO	NO	24C	LOWER 4160V	SWGR GERS	
86-A312 OSVS	GE-HEA	HEA61B	NO	NO	24C	LOWER 4160V	GERS / Cap vs. Dem	Memo
86/15G-12U-2 (Note 14)-A305	GE-HEA	HEA61B	NO	NO	24C	LOWER 4160V	SWGR GERS	
86/A312-RELAY SDR (A)	GE-HEA	HEA61B	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
3-A303	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	SWGR GERS	
3-A306	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	SWGR GERS	
3-A307	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	SWGR GERS	
86-1/22S3-24C-2 (Note 13)-A305	GE-HFA	12HFA151A2H	NO	NO	240	LOWER 4160V	SWGR GERS	
86-1/24C-1T-2 A305	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	SWGR GERS	
86-2-A305	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	GERS / Cap vs. Dem	
86-2/22S3-24C2-A312	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
86-A305	GE-HFA	12HFA151A2H	NO	NO	24C	LOWER 4160V	SWGR GERS	
86X-A305	GE-HGA	HGA11W	NO	NO	240	LOWER 4160V	GERS / Cap vs. Dem	
51A-A305	GE-IAC	12IAC53A101A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
51A-A305	GE-IAC	12IAC53A101A	NO	NO	24C	LOWER 4160V	GERS / Cap vs. Dem	
51B-A305	GE-IAC	12IAC53A101A	NO	NO	24C	LOWER 4160V		
51C-A305	GE-IAC GE-IAC	12IAC53A101A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
51-A312	GE-IAC	12IAC53A3A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
51GS-A305	GE-IAC	12IAC53A3A	NO	NO	24C		Cap vs. Dem	
0100-4000	OE-INC	MCMCCOMIN	NO	NO	240	LOWER 4160V	Cap vs. Dem	

	A. 7	1 10	B.S	the second second	
25.1	A 1	1.1.7	Not	SAC.	

	A CARLES AND A CARLES A	
Accept=	Further circuit review by lead relay reviewers determined contact Chatter Acceptable	
Bad if non-1E =	Relay is a Bad Actor if it was procured non-1E	
Bkr Cap =	Screened out by breaker capacity, i.e. 42s, 49s, 52s devices	
Cap vs. Dem=	Outlier, due to relay capacity not enveloping demand	
GERS** =	MCC evaluation	
GERS* =	Screened out by relay GERS, comparison to same model Relay Functionality Review	
GERS =	Relay Functionality Review printed, see body of Attachment G	
No info =	No make and model info, can't locate during walkdown	
No GERS =	No relay GERS available / require further evaluation	
No info =	No make and model info, can't locate during walkdown	
OK*** =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	
Green Green	reacter another remain a contract to concerned our doing or for toppolet	

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C.\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID

Date: 12/12/95 Page:2

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
51GS-A312	GE-IAC	12IAC53A3A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51A-A303	GE-IAC	12IAC53B104A	NO	NO	24C	LOWER 4160V	GERS / Cap vs. Dem	
50/51B-A303	GE-IAC	12IAC53B104A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51C-A303	GE-IAC	12IAC53B104A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51A-A306	GE-IAC	121AC66K8A	NO	NO	24C	LOWER 4160V	GERS / Cap vs. Dem	
50/51A-A307	GE-IAC	12IAC66K8A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51B-A306	GE-IAC	121AC66K8A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51B-A307	GE-IAC	121AC66K8A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51C-A306	GE-IAC	121AC66K8A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50/51C-A307	GE-IAC	121AC66K8A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
27/B-A312	GE-IAV	12IAV55CIA	NO	NC	24C	LOWER 4160V	SWGR GERS	
27/L-A312	GE-IAV	12IAV55CIA	NO	NO/NC	24C	LOWER 4160V	SWGR GERS	
32-A312	GE-ICW	12ICW51A2A	NO	NO	24C	LOWER 4160V	No GERS	Memo
OSVS								
51V-A312	GE-IJCV	12IJCV52A9A	NO	NO	24C	LOWER 4160V	No GERS	
87A/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	24C	LOWER 4160V	Bad if non-1E / Cap vs. Dem	Memo
OSVS								
878/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	24C	LOWER 4160V	Bad if non-1E / Cap vs. Dem	
87C/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	24C	LOWER 4160V	Bad if non-1E / Cap vs. Dem	
25/SC-A312	GE-IJS	IJS52D1A	NO	NO	24C	LOWER 4160V	SWGR GERS	
50GS-A303	GE-PJC	121PJC11AV1A	NO	NO	24C	LOWER 4160V	GERS / Cap vs. Dem	
50GS-A306	GE-PJC	121PJC11AV1A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50GS-A307	GE-PJC	121PJC11AV1A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50GS-A312	GE-PJC	12PJC11AV	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
50-A312	GE-PJC	12PJC11X3A	NO	NO	24C	LOWER 4160V	Cap vs. Dem	
83X-A305	TEL	CLASS J	NO	NC	24C	LOWER 4160V	SWGR GERS	
52Y-A401					24D	UPPER 4160V	SWGR GERS	ite ministerietetetetetetetetetetetetetetetetetet
52Y-A402					24D	UPPER 4160V	SWGR GERS	
52Y-A403					24D	UPPER 4160V	SWGR GERS	
52Y-A404					24D	UPPER 4160V	SWGR GERS	
52Y-A406					240	UPPER 4160V	SWGR GERS	
52Y-A408					24D	UPPER 4160V	SWGR GERS	
52Y-A411					24D	UPPER 4160V	SWGR GERS	
3-A406			NO	NO	24D	UPPER 4160V	SWGR GERS	
3-A407			NO	NO	24D	UPPER 4160V	SWGR GERS	

STATUS Notes: Accept= Further circuit review by lead relay reviewers determined contact Chatter Acceptable Bad if non-1E = Relay is a Bad Actor if it was procured non-1E Bkr Cap = Screened out by breaker capacity, i.e. 42s, 49s, 52s devices Cap vs. Dem= GERS** = GERS* = Outlier, due to relay capacity not enveloping demand MCC evaluation Screened out by relay GERS, comparison to same model Relay Functionality Review Relay Functionality Review printed, see body of Attachment G No make and model info, can't locate during walkdown GERS = No info = No GERS = No relay GERS available / require further evaluation No info = No make and model info, can't locate during walkdown OK*** = Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand SWGR GERS = Further circuit review determined contact is screened out using SWGR capacity

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID

Date: 12/12/95 Page:3

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS REMARK
81/X-A401			NO	NO	24D	UPPER 4160V	SWGR GERS
3-A409			YES	NO	24D	UPPER 4160V	SWGR GERS
81-A401	GE-CFF	12CFF12A63A	NO	NO	24D	UPPER 4160V	SWGR GERS
86-A401	GE-HEA	HEA61B	NO	NO	24D	UPPER 4160V	GERS / Cap vs. Dem
86/A401-RELAY SDR (B)	GE-HEA	HEA61B	NO	NO	24D	UPPER 4160V	Cap vs. Dem
86/15G-13U-2 (Note 15)-A408	GE-HEA	HEA61B	NO	NO/NC	24D	UPPER 4160V	Cap vs. Dem
86-2-A408	GE-HFA	12HFA151A2H	NO	NC	24D	UPPER 4160V	GERS / Cap vs. Dem
86-A408	GE-HFA	12HFA151A2H	NO	NC	24D	UPPER 4160V	Cap vs. Dem
86-1/22S3-24D-2 (Note 16)-A408	GE-HFA	12HFA151A2H	NO	NO	24D	UPPER 4160V	GERS / Cap vs. Dem
86-1/24D-1T-2-A4C3	GE-HFA	12HFA151A2H	NO	NO	24D	UPPER 4160V	Cap vs. Dem
86-2-A408	GE-HFA	12HFA151A2H	NO	NO	24D	UPPER 4160V	Cap vs. Dem
86-2/22S3-24D-2-A401	GE-HFA	12HFA151A2H	NO	NO	240	UPPER 4160V	Cap vs. Dem
86X-A408	GE-HGA	HGA11W	NO	NO	24D	UPPER 4160V	GERS / Cap vs. Dem
51-A401	GE-IAC	12IAC53A101A	NO	NO	240	UPPER 4160V	GERS / Cap vs. Dem
51A-A408	GE-IAC	12IAC53A101A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
51B-A408	GE-IAC	12IAC53A101A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
51C-A408	GE-IAC	12IAC53A101A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
51GS-A408	GE-IAC	12IAC53A3A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51A-A409	GE-IAC	12IAC53B104A	NO	NO	24D	UPPER 4160V	GERS / Cap vs. Dem
50/51B-A409	GE-IAC	12IAC53B104A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51C-A409	GE-IAC	12IAC53B104A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51A-A406	GE-IAC	12IAC66K8A	NO	NO	24D	UPPER 4160V	GERS / Cap vs. Dem
50/51A-A407	GE-IAC	12IAC66K8A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51B-A406	GE-IAC	121AC66K8A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51B-A407	GE-IAC	12IAC66K8A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51C-A406	GE-IAC	12IAC66K8A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
50/51C-A407	GE-IAC	121AC66K8A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
51GS-A401	GE-IAC	IAC53A	NO	NO	24D	UPPER 4160V	Cap vs. Dem
32-A401	GE-ICW	12ICW51A2A	NO	NO	24D	UPPER 4160V	No GERS
51V-A401	GE-IJCV	12IJCV52A9A	NO	NO	24D	UPPER 4160V	No GERS
87A/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	24D	UPPER 4160V	Bad if non-1E / Cap vs. Dem
87B/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	24D	UPPER 4160V	Bad if non-1E / Cap vs. Dem
87C/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	24D	UPPER 4160V	Bad if non-1E / Cap vs. Dem
25/SC-A401	GE-IJS	12IJS52D1A	NO	NO	24D	UPPER 4160V	SWGR GERS
27/B-A401	GE-IJS	IJS52	NO	NO	24D	UPPER 4160V	SWGR GERS
27/L-A401	GE-JS	IJS52	NO	NO	24D	UPPER 4160V	SWGR GERS
50GS-A401	GE-PJC	12PJC11AV1A	NO	NO	24D	UPPER 4160V	GERS / Cap vs. Dem
50GS-A406	GE-PJC	12PJC11AV1A	NO	NO	24D	UPPER 4160V	Cap vs. Dem

STATUS Notes: Accept= Further circuit review by lead relay reviewers determined contact Chatter Acceptable Bad if non-1E = Relay is a Bad Actor if it was procured non-1E. Bkr Cap = Screened out by breaker capacity, i.e. 42s, 49s, 52s devices Cap vs. Dem= Outlier, due to relay capacity not enveloping demand GERS** = GERS* = MCC evaluation Screened out by relay GERS, comparison to same model Relay Functionality Review Relay Functionality Review printed, see body of Attachment G No make and model info, can't locate during walkdown No relay GERS available / require further evaluation GERS = No info = No GERS = No info = No make and model info, can't locate during walkdown OK*** = Relay capacity acceptable, host cabinet is an outlier due to interactions or capac SWGR GERS = Further circuit review determined contact is screened out using SWGR capacity Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID

ATTACHMENT F

Date: 12/12/95 Page:4

								Date. 12/12/95	Faye.4
ID		MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
50GS-A407		GE-PJC	12PJC11AV1A	NO	NO	24D	UPPER 4160V	Cap vs. Dem	
50GS-A409		GE-PJC	12PJC11AV1A	NO	NO	24D	UPPER 4160V	Cap vs. Dem	
50-A401		GE-PJC	12PJC11X3A	NO	NO	24D	UPPER 4160V	Cap vs. Dem	
83X-A408		TEL	CLASS J	NO	NC	24D	UPPER 4160V	SWGR GERS	
52Y-A502						24E	LOWER 4160V	SWGR GERS	7.6.7
52Y-A503						24E	LOWER 4160V	SWGR GERS	
52Y-A504						24E	LOWER 4160V	SWGR GERS	
3-A502				NO	NO	24E	LOWER 4160V	SWGR GERS	
86-1/21S3-24E-2	-A305	GE-HFA	HFA51A	NO	NO	24E	LOWER 4160V	SWGR GERS	
86-1/21S3-24E-2	-A408	GE-HFA	HFA51A	NO	NO	24E	LOWER 4160V	GERS / Cap vs. Dem	
86-2-A305		GE-HFA	HFA51A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
51A-A408		GE-IAC	12IAC53A101A	NO	NO	24E	LOWER 4160V	GERS / Cap vs. Dem	
51B-A305		GE-IAC	12IAC53A101A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
51B-A408		GE-IAC	12IAC53A101A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
51C-A305		GE-IAC	12IAC53A101A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
51C-A408		GE-LAC	12IAC53A101A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
50/51A-A502		GE-IAC	121AC66K8A	NO	NO	24E	LOWER 4160V	GERS / Cap vs. Dem	
50/51B-A502		GE-IAC	121AC66K8A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
50/51C-A502		GE-IAC	121AC66K8A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
50GS-A305		GE-PJC	121PJC11AV1A	NO	NO	24E	LOWER 4160V	GERS / Cap vs. Dem	
50GS-A408		GE-PJC	121PJC11AV1A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
50GS-A502		GE-PJC	121PJC11AV1A	NO	NO	24E	LOWER 4160V	Cap vs. Dem	
42 (Note 3)-2-HV	-255A					B51	SFP SKIMMER PP A	Bkr Cap	-
42-F15A						B51	SFP SKIMMER PP A	Bkr Cap	
42-F38A						B51	SFP SKIMMER PP A		
42-F54A						B51	SFP SKIMMER PP A		
42/C-2-CH-501						B51	SFP SKIMMER PP A		
42/C-2-CH-504						B51	SFP SKIMMER PP A		
42/C-2-CH-509						B51	SFP SKIMMER PP A		
42/C-2-CS-13.1A						B51	SFP SKIMMER PP A		
42/C-2-R8-30.1A						B51	SFP SKIMMER PP A		
42/C-2-RB-37.2A						B51	SFP SKIMMER PP A		
42/C-2-RC-403						B51	SFP SKIMMER PP A		
42/C-2-SI-615						B51	SFP SKIMMER PP A		
42/C-2-SI-625						B51	SFP SKIMMER PP A		
42/O-2-CH-501						B51	SFP SKIMMER PP A		
ATUS Notes: ccept= ad if non-1E =	Further circuit rev Relay is a Bad A		y reviewers determined o	ontact Chatter Acce	eptable				
kr Cap = ap vs. Dem= ERS** = ERS* = ERS = o info =	Screened out by Outlier, due to rei MCC evaluation Screened out by Relay Functional	breaker capacity lay capacity not relay GERS, con ity Review printe	, i.e. 42s, 49s, 52s device enveloping demand mparison to same model f id, see body of Attachmen cate during walkdown	Relay Functionality	Review				
0 GERS = 0 info = K*** = WGR GERS =	No relay GERS a No make and mo Relay capacity as	vailable / require del info, can't lo cceptable, host o	e further evaluation cate during walkdown cabinet is an outlier due to contact is screened out u			neeting den	nand		

SWGR GERS = Further circuit review determined contact is screened out using SWGR capacity

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID

Date: 12/12/95 Page:5

ID		MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
42/O-2-CH-509						B51	SFP SKIMMER PP A	Bkr Cap	
42/0-2-CS-4.1A						B51	SFP SKIMMER PP A		
42/O-2-RC-403						B51	SFP SKIMMER PP A		
42/O-2-SI-615						B51	SFP SKIMMER PP A		
42/O-2-SI-625						B51	SFP SKIMMER PP A		
						B51	SFP SKIMMER PP A		
42/O-2-SI-651								and the second se	
42/0-2-51-663						B51	SFP SKIMMER PP A		
49-F15A						B51	SFP SKIMMER PP A		
49-F38A						B51	SFP SKIMMER PP A		
49-F54A						B51	SFP SKIMMER PP A	Bkr Cap	
49A-F15A						B51	SFP SKIMMER PP A	Bkr Cap	
3T2-F15A		AGASTAT	7012AD	NO	NO	851	SFP SKIMMER PP A	GERS	
42T/TDO-F15A		AGASTAT	E7022AB002	YES	NO	B51	SFP SKIMMER PP A	GERS	
42-F112A						852	MAIN EXH FAN	OK***	
42-F31A						852	MAIN EXH FAN	OK***	
42-P122A						B52	MAIN EXH FAN	OK***	
42/C-2-MS-201						852	MAIN EXH FAN	OK***	
42/O-2-MS-201						B52	MAIN EXH FAN	OK***	
42/0-2-MS-65A						B52	MAIN EXH FAN	OK***	
49-F112A						B52	MAIN EXH FAN	OK***	
						B52	MAIN EXH FAN	OK***	
49-F31A 49-P122A						B52	MAIN EXH FAN	OK***	
49-P122A						852	MAIN EAR FAN	UK-	
42 (Note 4)-2-HV	/-255B					B61	PMP SAMP SK	Bkr Cap	
42-F158						B61	PMP SAMP SK	Bkr Cap	
42-F38B						B61	PMP SAMP SK	Bkr Cap	
42-F54B						B61	PMP SAMP SK	Bkr Cap	
42-P19A						E-51	PMP SAMP SK	Bkr Cap	
42-P19B						861	PMP SAMP SK	Bkr Cap	
42/C-2-CH-429						B61	PMP SAMP SK	Bkr Cap	
42/C-2-CS-13.1E	3					B61	PMP SAMP SK	Bkr Cap	
42/C-2-RB-30.18						B61	PMP SAMP SK	Bkr Cap	
42/C-2-RB-37.28						861	PMP SAMP SK	Bkr Cap	
42/C-2-RC-405						B61	PMP SAMP SK	Bkr Cap	
42/C-2-SI-635						B61	PMP SAMF SK	Bkr Cap	
42/C-2-SI-645						B61	PMP SAMP SK	Bkr Cap	
42/0-2-CH-429						B61	PMP SAMP SK	Bkr Cap	
42/0-2-011-425						001	FINE GAME ON	DRI Cap	
TATUS Notes:									
Accept=			y reviewers determined	contact Chatter Acc	eptable				
Bad if non-1E =		ctor if it was proc							
Bkr Cap =			, i.e. 42s, 49s, 52s devi	ces					
Cap vs. Dem=			enveloping demand						
GERS** = GERS* =	MCC evaluation		nparison to same mode	Palay Eunctionality	Rovine				
GERS =			d, see body of Attachme		TIC TICM				
No info =			ate during walkdown	and of the second se					
No GERS =			further evaluation						
No info =			ate during walkdown						
OK*** =			abinet is an outlier due			meeting der	nand		
SWGR GERS =	Further circuit rei	honimateh weiv	contact is screened out	using SWGR canaci	ity				

SWGR GERS = Further circuit review determined contact is screened out using SWGR capacity

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID

Date: 12/12/95 Page:6

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMAR
42/O-2-CS-4.1B					B61	PMP SAMP SK	Bkr Cap	
42/O-2-RC-405					B61	PMP SAMP SK	Bkr Cap	
42/O-2-SI-635					B61	PMP SAMP SK	Bkr Cap	
42/O-2-S1-645					B61	PMP SAMP SK	Bkr Cap	
42/O-2-SI-652					B61	PMP SAMP SK	Bkr Cap	
42/O-2-SI-662					B61	PMP SAMP SK	Bkr Cap	
49-F15B					B61	PMP SAMP SK	Bkr Cap	
49-F38B					B61	PMP SAMP SK	Bkr Cap	
49-F54B					B51	PMP SAMP SK	Bkr Cap	
49-P19A					B61	PMP SAMP SK	Bkr Cap	
19-P19B					B61	PMP SAMP SK	Bkr Cap	
49A-F15B					B61	PMP SAMP SK	Bkr Cap	
3T2-F15B	AGASTAT	7012AD	NO	NO	B61	PMP SAMP SK	GERS	
42T/TDO-F15B	AGASTAT	E7022AB002	YES	NO	B61	PMP SAMP SK	GERS	
42-F112B					B62	CR HVAC RM	Bkr Cap	
42-F31B					B62	CR HVAC RM	Bkr Cap	
42-P122B					B62	CR HVAC RM	Bkr Cap	
12/C-2-FW-44					B62	CR HVAC RM	Bkr Cap	
42/C-2-MS-202					B62	CR HVAC RM	Bkr Cap	
42/O-2-MS- 56					B62	CR HVAC RM	Bkr Cap	
49-F112B					B62	CR HVAC RM	Bkr Cap	
49-F31B					B62	CR HVAC RM	Bkr Cap	
49-P122B					B62	CR HVAC RM	Bkr Cap	
94-2-CH-518	GE-HGA	12HGA11J52	NO	NO	C02R	CONTROL RM	GERS	
94-2-CH-519	GE-HGA	12HGA11J52	NO	NO	C02R	CONTROL RM	GERS*	
94-2-CH-517	GE-HGA	12HGA11J52G	NO	NO	C02R	CONTROL RM	GERS*	
53XB-2-RC-404	GE-HFA	12HFA51A42H33	NO	NO	C03R	CONTROL RM	GERS	
63XA-2-RC-402	GE-HGA	12HGA11J52G	NO	NO	C03R	CONTROL RM	GERS	
20X/Z1-2-FW-43A	GE-HFA	12HFA151A2H	NO	NO	C05	CONTROL RM	GERS / OK***	
20X/Z2-2-FW-438	GE-HFA	12HFA151A2H	NO	NO	C05	CONTROL RM	OK***	
1X/UV4165-2-MS-190A	GE-HFA	12HFA151A2H	NO	NO	C05R	CONTROL RM	GERS / OK***	
1X/UV4165-2-MS-190B	GE-HFA	12HFA151A2H	NO	NO	C05R	CONTROL RM	OK***	
94TGX6/UV4165-2-MS-190A	GE-HFA	12HFA151A2H	NO	NO	C05R	CONTROL RM	OK***	

STATUS Notes:

Accept=	Further circuit review by lead relay reviewers determined contact Chatter Acceptable
Bad if non-1E =	Relay is a Bad Actor if it was procured non-1E
Bkr Cap =	Screened out by breaker capacity, i.e. 42s, 49s, 52s devices
Cap vs. Dem=	Outlier, due to relay capacity not enveloping demand
GERS** =	MCC evaluation
GERS* =	Screened out by relay GERS, comparison to same model Relay Functionality Review
GERS =	Relay Functionality Review printed, see body of Attachment G
No info =	No make and model info, can't locate during walkdown
No GERS =	No relay GERS available / require further evaluation
No info =	No make and model info, can't locate during waikdown
OK*** =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID_MAKE, DESC, RLY_ENER_NO_NC,ID

Date: 12/12/95 Page:7

D	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMAR
94TGX6/UV4165-2-MS-1908	GE-HFA	12HFA151A2H	NO	NO	C05R	CONTROL RM	OK***	
63X-1/4224-2-MS-190A	GE-HGA	12HGA11J52G	NO	NO	C05R	CONTROL RM	GERS / OK***	
63X-1/4224-2-MS-190B	GE-HGA	12HGA11J52G	NO	NO	C05R	CONTROL RM	OK***	
20X1-2-MS-289	GE-HGA	12HGA11J52G	NO	NO	C06R	CONTROL RM	GERS / OK***	
20X1-2-MS-294	GE-HGA	12HGA11J52G	NO	NO	C06R	CONTROL RM	OK***	
83X2/15G-22S-A411	GE-HLA	11B12A	NO	NO	C07R	CONTROL RM	GERS	
83X1/15G-22S-A302	GE-HLA	12HLA11B12A	NO	NO	C07R	CONTROL RM	GERS*	
CF4-RELAY SDR (A)					C38	A D/G	No Info	Memo
OSVS - An OSVS is generated								
relays w/o manufacturer/mo this relay contact ID.	odel information it	s being tracked via						
TD3(DG-A)-2-DG-27A	AGASTAT	2422DB	NO	NO/NC	C38	A D/G	GERS	
TD3(DG-A)-2-DG-95A	AGASTAT	2422DB	NO	NO/NC	C38	A D/G	GERS*	
TD3(DG-A)-2-DG-96A	AGASTAT	2422DB	NO	NO/NC	C38	A D/G	GERS*	
TD3(DG-A)-H7A	AGASTAT	2422DB	NO	NO/NC	C38	A D/G	GERS*	
TD4(DG-A)-2-DG-27A	AGASTAT	2422PB	NO	NO/NC	C38	A D/G	GERS*	
TD4(DG-A)-2-DG-95A	AGASTAT	2422PB	NO	NO/NC	C38	A D/G	GERS*	
TD4(DG-A)-2-DG-96A	AGASTAT	2422PB	NO	NO/NC	C38	A D/G	GERS*	
TD4(DG-A)-H7A	AGASTAT	2422PB	NO	NO/NC	C38	A D/G	GERS*	
13-1(DG-A)-RELAY SDR (A)	GE-HEA	12HEA63C238	NO	NO/NC	C38	A D/G	GERS	
13-1(DG-A)-2-DG-27A	GE-HEA	12HEA63C238	YES/NO	NO/NC	C38	A D/G	GERS*	
13-1(DG-A)-2-DG-95A	GE-HEA	12HEA63C238	YES/NO	NO/NC	C38	A D/G	GERS*	
13-1(DG-A)-2-DG-96A	GE-HEA	12HEA63C238	YES/NO	NO/NC	C38	A D/G	GERS*	
13-1(DG-A)-A312	GE-HEA	12HEA63C238	YES/NO	NO/NC	C38	A D/G	GERS*	
43-1(DG-A)-H7A	GE-HEA	12HEA63C238	YES/NO	NO/NC	C38	A D/G	GERS*	
59-A312 OSVS	GE-NGV	12NGV22A1A	NO	NO	C38	A D/G	No GERS	Memo
43-MSSX(DG-A)-2-DG-27A	ITE	CLASS J			C38	A D/G	GERS	
43-MSSX(DG-A)-2-DG-95A	ITE	CLASS J			C38	A D/G	GERS*	
43-MSSX(DG-A)-H7A	ITE	CLASS J			C38	A D/G	GERS*	
CR4-RELAY SDR (B)					C39	B D/G	No Info	and the second
TD3(DG-B)-2-DG-27B	AGASTAT	2422PB	NO	NO/NC	C39	B D/G	GERS	

STATUS Notes:

Accept= Further circuit review by lead relay reviewers determined contact Chatter Acceptable Bad if non-1E = Relay is a Bad Actor if it was procured non-1E Bkr Cap = Screened out by breaker capacity, i.e. 42s, 49s, 52s devices Cap vs. Dem= Outlier, due to relay capacity not enveloping demand GERS** = MCC evaluation GERS* = Screened out by relay GERS, comparison to same model Relay Functionality Review Relay Functionality Review printed, see body of Attachment G No make and model info, can't locate during walkdown GERS = No info = No GERS = No relay GERS available / require further evaluation No make and model info, can't locate during walkdown No info = OK*** = Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand SWGR GERS = Further circuit review determined contact is screened out using SWGR capacity

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC, ID ATTACHMENT F

Date: 12/12/95 Page:8

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMAR
TD3(DG-B)-2-DG-95B	AGASTAT	2422PB	NO	NONC	C39	B D/G	GERS*	
TD3(DG-B)-2-DG-96B	AGASTAT	2422PB	NO	NO/NC	C39	B D/G	GERS*	
TD3(DG-B)-H7B	AGASTAT	2422PB	NO	NO/NC	C39	B D/G	GERS*	
TD4(DG-B)-2-DG-27B	AGASTAT	E7022PC002	YES/NO	NO	C39	B D/G	GERS	
TD4(DG-B)-2-DG-95B	AGASTAT	E7022PC002	YES/NO	NO	C39	B D/G	GERS*	
TD4(DG-B)-2-DG-96B	AGASTAT	E7022PC002	YES/NO	NO	C39	B D/G	GERS*	
TD4(DG-B)-H7B	AGASTAT	E7022PC002	YES/NO	NO	C39	B D/G	GERS*	
43-1(DG-B)-RELAY SDR (B)	GE-HEA	12HEA63C238	NO	NO/NC	C39	B D/G	GERS	
43-1(DG-B)-2-DG-27B	GE-HEA	12HEA63C238	YES/NO	NO/NC	C39	B D/G	GERS*	
43-1(DG-B)-2-DG-95B	GE-HEA	12HEA63C238	YES/NO	NO/NC	C39	B D/G	GERS*	
43-1(DG-B)-2-DG-96B	GE-HEA	12HEA63C238	YES/NO	NO/NC	C39	B D/G	GERS*	
43-1(DG-B)-A401	GE-HEA	12HEA63C238	YES/NO	NO/NC	C39	B D/G	GERS*	
43-1(DG-B)-H7B	GE-HEA	12HEA63C238	YES/NO	NO/NC	C39	B D/G	GERS*	
59-A401	GE-NGV	12NGV22A1A	NO	NO	C39	B D/G	No GERS	
43-MSSX(DG-B)-2-DG-27B	ITE	CLASS J			C39	B D/G	GERS	
43-MSSX(DG-B)-2-DG-958	ITE	CLASS J			C39	B D/G	GERS*	
43-MSSX(DG-B)-H7B	ITE	CLASS J			C39	B D/G	GERS*	
2HCR-80506			NO	NO	DC1	EAST DC GEAR	No Info	
2HCR-80607			NO	NO	DC2	WEST DC GEAR	No Info	
12-2-RC-402	GE-CR	CR106	·····		NPY402	EAST DC GEAR	Bkr Cap	
12-2-RC-404	GE-CR	CR106			NPY404	WEST DC GEAR	Bkr Cap	
			dere se en se derege		RC02B	CONTROL RM		Memo

The essential relays in the ESAS Engineered Safety Actuation System cabinet have been screened out by Seismic Test Report for ESFAS Modules, Eaton/Consolidated Controls document No KED7399 dated 9/28/92. Reference also Wyle Laboratories Seismic Test Program on Seven ESFAS Modules, Test Report 42557-1, 8/24/92.

LP1-RELAY SDR (A)	RC02B CONTROL RM	OK***
LP1/K530A-2-DG-27A	RC02B CONTROL RM	OK***
LP1/K530A-2-DG-95A	RC02B CONTROL RM	OK***
LP1/K530A-2-DG-96A	RC02B CONTROL RM	OK***
LP1/K530A-H7A	RC02B CONTROL RM	OK***

STATUS Notes:	Further circuit review by lead relay reviewers determined contact Chatter Acceptable
Accept=	Relay is a Bad Actor if it was procured non-1E
Bad if non-1E =	Screened out by breaker capacity, i.e. 42s, 49s, 52s devices
Bkr Cap =	Outlier, due to relay capacity not enveloping demand
Cap vs. Dem=	MCC evaluation
GERS*=	Screened out by relay GERS, comparison to same model Relay Functionality Review
GERS*=	Relay Functionality Review printed, see body of Attachment G
GERS*=	No make and model info, can't locate during walkdown
No info =	No relay GERS available / require further evaluation
No GERS =	No make and model info, can't locate during walkdown
No info =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand
OK*** =	Evaluate review determined centrat is accepted of the SWCR examples and the second of the se
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC, ID

Date: 12/12/95 Page:9

Memo

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
SEQ 0/K534C-F31A			NO	NC.	RC02B	CONTROL RM	OK***	
BUS A3 LD SHED-A312			NO	NO	RC02B	CONTROL RM	OK***	
CSAS-K510A-2-CS-4.1A			NO	NO	RC02B	CONTROL RM	OK***	
K534I-A307			NO	NO	RC02B	CONTROL RM	OK***	
K534L-A307			NO	NO	RC02B	CONTROL RM	OK***	
LD SHED/K529A-A306			NO	Bet)	RC02B	CONTROL RM	OK***	
SIAS1/K514A-A308			NO	NO	RC02B	CONTROL RM	OK***	
SIAS1/K517A-A309			NO	NO	RC02B	CONTROL RM	OK***	
SIAS1/SEQ. 2-A311			NO	NO	RC02B	CONTROL RM	OK***	
SIAS1/SEQ 1/K515C-A306			NO	NO	RC02B	CONTROL RM	OK***	
SIAS5/SEQ1/K514B-A503			NO	NO	RC02B	CONTROL RM	CK***	
SIAS5/SEQ2/K516B-A504			NO	NO	RC02B	CONTROL RM	OK***	
UV1C/K529B-A307			NO	NO	RC02B	CONTROL RM	OK***	
SIAS/K519B-2-CH-508			NO	NO/NC	RC02B	CONTROL RM	OK***	
SIAS/K524A-2-RB-68 1A			NO	NO/NC	RC02B	CONTROL RM	OK***	
SRAS/K511A-2-RB-13.1A			NO	NO/NC	RC02B	CONTROL RM	OK***	

RC02C

CONTROL RM

The essential relays in the ESAS Engineered Safety Actuation System cabinet have been screened out by Seismic Test Report for ESFAS Modules, Eaton/Consolidated Controls document No KED7399 dated 9/28/92. Reference also Wyle Laboratories Seismic Test Program on Seven ESFAS Modules, Test Report 42557-1, 8/24/92.

LP2/SEQ. 0-RELAY SDR (B)			RC02C	CONTROL RM	OK***
LP!I/K630A-2-DG-27B			RC02C	CONTROL RM	OK***
LP11/K630A-2-DG-95B			RC02C	CONTROL RM	OK***
LPII/K630A-2-DG-96B			RC02C	CONTROL RM	OK***
LPII/K630A-H7B			RC02C	CONTROL RM	OK***
CSAS-K610A-2-CS-4.1B	NO	NC	RC02C	CONTROL RM	OK***
SEQ. 0/K634C-F31B	NO	NC	RC02C	CONTROL RM	OK***
BUS A4 LD SHED-A401	NO	NO	RC02C	CONTROL RM	OK***
K634L-A406	NO	NO	RC02C	CONTROL RM	OK***
K634M-A406	NO	NO	RC02C	CONTROL RM	OK***
LD SHED/K629A-A407	NO	NO	RC02C	CONTROL RM	OK***
SIAS-2/K614A-A403	NO	NO	RC02C	CONTROL RM	OK***
SIAS/K624A-2-RB-68.1B	NO	NO	RC02C	CONTROL RM	OK***
SIAS2/SEQ 2-A402	NO	NO	RC02C	CONTROL RM	OK***

	A 1974	100		and the second
51	ATU	15	NO	125

Accept= Bad if non-1E = Bkr Cap =	Further circuit review by lead relay reviewers determined contact Chatter Acceptable Relay is a Bad Actor if it was procured non-1E Screened out by breaker capacity, i.e. 42s, 49s, 52s devices	
Cap vs. Dom=	Outlier, due to relay capacity not enveloping demand	
GERS** =	MCC evaluation	
GERS* =	Screened out by relay GERS, comparison to same model Relay Functionality Review	
GERS =	Relay Functionality Review printed, see body of Attachment G	
No info =	No make and model info, can't locate during walkdown	
No GERS =	No relay GERS available / require further evaluation	
No info =	No make and model info, can't locate during walkdown	
OK*** =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	

t = CAB_ID, MAKE, DESC, RL								
D	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMAR
SIAS2/SEQ 1/K615C-A407			NO	NO	RC02C	CONTROL RM	OK***	
SIAS5/SEQ1/K614B-A503			NO	NO	RC02C	CONTROL RM	OK***	
RAS/K611A-2-RB-13 1B			NO	NO	RC02C	CONTROL RM	OK***	
IV2C/K629B-A406			NO	NO	RC02C	CONTROL RM	OK***	
IAS2/K634F-A404			NO	NO/NC	RC02C	CONTROL RM	OK***	
a the second second second second					RC02E	CONTROL RM		Memo
dated 9/28/92. Reference	also Wyle Laborat	ones Seismic Test						
S651B-A502 D SHED/KS631A-A502 IAS5/SEQ 1/K634D-A502	S Modules, Test Re	eport 42557-1, 8/24/92.	NO NO NO	NO NO NO	RC02E RC02E RC02E	CONTROL RM CONTROL RM CONTROL RM	ОК*** ОК*** ОК***	
S651B-A502 D SHED/KS631A-A502 HAS5/SEQ 1/K634D-A502	S Modules, Test Re	port 42557-1, 8/24/92.	NO	NO	RC02E	CONTROL RM	OK*** OK***	
S651B-A502 D SHED/KS631A-A502 IAS5/SEQ 1/K634D-A502 IAS5/SEQ2/KS516B-A504	GE-NGV	12NGV13A11A	NO NO NO YES	NO NO NO	RC02E RC02E RC02E RC05B	CONTROL RM CONTROL RM CONTROL RM	OK*** OK*** OK***	
S651B-A502 D SHED/KS631A-A502 IAS5/SEQ 1/K634D-A502 IAS5/SEQ2/KS516B-A504 -2-RC-402	S Modules, Test Re	eport 42557-1, 8/24/92.	NO NO NO	NO NO NO	RC02E RC02E RC02E	CONTROL RM CONTROL RM CONTROL RM	OK*** OK***	
S651B-A502 D SHED/KS631A-A502 IAS5/SEQ 1/K634D-A502 IAS5/SEQ2/KS516B-A504 -2-RC-402 -2-RC-404	S Modules, Test Re GE-NGV	12NGV13A11A	NO NO NO YES	NO NO NO	RC02E RC02E RC02E RC05B RC05B SV-4188	CONTROL RM CONTROL RM CONTROL RM CONTROL RM CONTROL RM TERRY AUX FD PM	OK*** OK*** OK*** OK*** Bkr Cap	
S651B-A502 D SHED/KS631A-A502 IAS5/SEQ 1/K634D-A502 IAS5/SEQ2/KS516B-A504 -2-RC-402 -2-RC-404 2/C-SV-4188	S Modules, Test Re GE-NGV	12NGV13A11A	NO NO NO YES	NO NO NO	RC02E RC02E RC02E RC05B RC05B SV-4188 SV-4188	CONTROL RM CONTROL RM CONTROL RM CONTROL RM CONTROL RM TERRY AUX FD PM (ERRY AUX FD PM	OK*** OK*** OK*** OK*** OK*** Bkr Cap Bkr Cap	
Program on Seven ESFAS S651B-A502 D SHED/KS631A-A502 AS5/SEQ 1/K634D-A502 AS5/SEQ2/KS516B-A504 -2-RC-402 -2-RC-404 2/C-SV-4188 2/O-SV-4188 9-OLR-SV-4188	S Modules, Test Re GE-NGV	12NGV13A11A	NO NO NO YES	NO NO NO	RC02E RC02E RC02E RC05B RC05B SV-4188	CONTROL RM CONTROL RM CONTROL RM CONTROL RM CONTROL RM TERRY AUX FD PM	OK*** OK*** OK*** OK*** Bkr Cap	

LIN CACIDIDDO MODEIDELAY DEC

ATTACUMENTE

The essential relays in T040 were spot checked during the relay walkdown. SRT noted only two types of relays exist inside the cabinet, namely ITE Class J control relays or Agastat E2400s or 7000s series timing relays. For relays that does not have manufacturer information, it was assumed to be an ITE Class J control relay (of the two types of relay inside cabinet, ITE has lower capacity).

Modification for the diesel generator control system was performed in 1993, purpose was to replace the governor and its associated controls, the new control components are located in seperated wall mounted enclosure. All relays associated with the

STATUS Notes:

Accept= Bad if non-1E = Bkr Cap =	Further circuit review by lead relay reviewers determined contact Chatter Acceptable Relay is a Bad Actor if it was procured non-1E Screened out by breaker capacity, i.e. 42s, 49s, 52s devices	
Cap vs. Dem= GERS** =	Outlier, due to relay capacity not enveloping demand MCC evaluation	
GERS* = GERS =	Screened out by relay GERS, comparison to same model Relay Functionality Review Relay Functionality Review printed, see body of Attachment G	
No info = No GERS =	No make and model info, can't locate during walkdown No relay GERS available / require further evaluation	
No info = OK*** =	No make and model info, can't locate during walkdown Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	

= 0	46 Seismic Capacity Eval CAB_ID, MAKE, DESC, R	LY_ENER, NO_NO	C,ID	o low a reducedance	0.1.001		CHMENT F		Date: 12/12/95	Page:11
,		MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS		REMAR
	mod have been qualified screening necessary. Re	to IEEE 344-1975 ference NUSCO P	, no additional relay A 91-056, PDCR 2-071-	92,						
	and SQR 92-83.									
DG	-A)-2-DG-27A					T040	A D/G	GERS*		
DG	-A)-2-DG-95A					T040	A D/G	GERS*		
	-A)-2-DG-96A					T040	A D/G	GERS*		
S. C. L.	-A)-H7A					T040	A D/G	GERS*		
A-H						T040	A D/G	GERS*		
	RELAY SDR (A)					T040	A D/G	GERS*		
	RELAY SDR (A)					T040	A D/G	GERS*		
	the second s					T040	A D/G	GERS*		
	I-RELAY SDR (A)					T040	A D/G	GERS*		
	A-RELAY SDR (A)					T040	A D/G	GERS*		
	RELAY SDR (A)					T040	A D/G	GERS*		
	RELAY SDR (A)					T040	A D/G	GERS*		
	I-RELAY SDR (A)					T040	A D/G	GERS*		
	RELAY SDR (A)					T040	A D/G	GERS*		
	RELAY SDR (A)					T040	A D/G	GERS*		
	-RELAY SDR (A)					T040	A D/G	GERS*		
	ELAY SDR (A)					T040	A D/G	GERS*		
	-RELAY SDR (A)						A D/G	GERS*		
	2-RELAY SDR (A)					T040		GERS*		
	3-RELAY SDR (A)					T040	A D/G			
	DG-A)-2-DG-27A					T040	A D/G	GERS*		
	(DG-A)-2-DG-95A					T040	A D/G	GERS*		
	DG-A)-2-DG-96A					T040	A D/G	GERS*		
	(DG-A)-A312					T040	A D/G	GERS*		
PS	(DG-A)-RELAY SDR (A)					T040	A D/G	GERS*		
TH/	A-RELAY SDR (A)					T040	A D/G	GERS*		
SW	(250)(DG-A)-2-DG-27A					T040	A D/G	GERS*		
SW	(250)(DG-A)-2-DG-95A					T040	A D/G	GERS*		
SW	(250)(DG-A)-2-DG-96A					T040	A D/G	GERS*		
SW	(250)(DG-A)-H7A					T040	A D/G	GERS*		
SW	(810)(DG-A)-2-DG-27A					T040	A D/G	GERS*		
	(810)(DG-A)-2-DG-95A					T040	A D/G	GERS*		
	(810)(DG-A)-2-DG-96A					T040	A D/G	GERS*		
	(810)(DG-A)-A312					T040	A D/G	GERS*		
	(810)(DG-A)-RELAY SDI	(4)				T040	A D/G	GERS*		

STA	 esc.	PA CO	100

Accept=	Further circuit review by lead relay reviewers determined contact Chatter Acceptable	
Bad if non-1E =	Relay is a Bad Actor if it was procured non-1E	
Bkr Cap =	Screened out by breaker capacity, i.e. 42s, 49s, 52s devices	
Cap vs. Dem=	Outlier, due to relay capacity not enveloping demand	
GERS** =	MCC evaluation	
GERS* =	Screened out by relay GERS, comparison to same model Relay Functionality Review	
GERS =	Relay Functionality Review printed, see body of Attachment G	
No info =	No make and model info, can't locate during walkdown	
No GERS =	No relay GERS available / require further evaluation	
No info =	No make and model info, can't locate during walkdown	
OK*** =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID ATTACHMENT F

Date: 12/12/95 Page: 12

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
TD2-RELAY SDR (A)					T040	A D/G	GERS*	
5(DG-A)-H7A	AGASTAT	2422PE	YES/NO	NO/NC	T040	A D/G	GERS	
5(DG-A)-RELAY SDR (A)	AGASTAT	2422PE	YES/NO	NO/NC	T040	A D/G	GERS*	
TD6(DG-A)-H7A	AGASTAT	E7022PB002	YES/NO	NC	T040	A D/G	GERS	
TD6(DG-A)-RELAY SDR (A)	AGASTAT	E7022PB002	YES/NO	NC	T040	A D/G	GERS*	
TD7(DG-A)-2-DG-27A	AGASTAT	E7022PB004	YES/NO	NO	T040	A D/G	GERS*	
TD7(DG-A)-2-DG-95A	AGASTAT	E7022PB004	YES/NO	NO	T040	A D/G	GERS*	
TD7(DG-A)-2-DG-96A	AGASTAT	E7022PB004	YES/NO	NO	T040	A D/G	GERS*	
TD7(DG-A)-RELAY SDR (A)	AGASTAT	E7022PB004	YES/NO	NO	T040	A D/G	GERS*	
TD1(DG-A)-2-DG-27A	AGASTAT	E7022PD002	YES/NO	NO/NC	T040	A D/G	GERS*	
TD1(DG-A)-2-DG-95A	AGASTAT	E7022PD002	YES/NO	NO/NC	T040	A D/G	GERS*	
TD1(DG-A)-2-DG-96A	AGASTAT	E7022PD002	YES/NO	NO/NC	T040	A D/G	GERS*	
TD1(DG-A)-H7A	AGASTAT	E7022PD002	YES/NO	NO/NC	T040	A D/G	GERS*	
TD1(DG-A)-RELAY SDR (A)	AGASTAT	E7022PD002	YES/NO	NO/NC	T040	A D/G	GERS*	
5X-H7A	ITE	CLASS J			1040	A D/G	GERS	
CPL-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
CT1-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
ESS(DG-A)-H7A	ITE	CLASS J			TC40	A D/G	GERS*	
ESS(DG-A)-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
FPL-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
LSR(DG-A)-2-DG-27A	ITE	CLASS J			T040	A D/G	GERS*	
LSR(DG-A)-2-DG-95A	ITE	CLASS J			T040	A D/G	GERS*	
LSR(DG-A)-2-DG-96A	ITE	CLASS J			T040	A D/G	GERS*	
LSR(DG-A)-H7A	ITE	CLASS J			T040	A D/G	GERS*	
OP1-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
OP2-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
OP3-RELAY SDR (A)	ITE	CLASS J			7040	A D/G	GERS*	
OTH-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
SFR(DG-A)-2-DG-27A	ITE	CLASS J			TU40	A D/G	GERS*	
SFR(DG-A)-2-DG-95A	ITE	CLASS J			T040	A D/G	GERS*	
SFR(DG-A)-2-DG-96A	ITE	CLASS J			T040	A D/G	GERS*	
SFR(DG-A)-H7A	ITE	CLASS J			T040	A D/G	GERS*	
SFR(DG-A)-RELAY SDR (A)	ITE	CLASS J			T040	A D/G	GERS*	
TD1X-H7A	ITE	CLASS J			T040	A D/G	GERS*	
5X-A312	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
HSR(DG-A)-2-DG-27A	ITE	CLASS J	NO	NO	T040	A D/G	GEH/S*	
HSR(DG-A)-2-DG-95A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
HSR(DG-A)-2-DG-96A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	

STATUS Notes:

Accept=	Further circuit review by lead relay reviewers determined contact Chatter Acceptable	
Bad if non-1E =	Relay is a Bad Actor if it was procured non-1E	
Bkr Cap =	Screened out by breaker capacity, i.e. 42s, 49s, 52s devices	
Cap vs. Dem=	Outlier, due to relay capacity not enveloping demand	
GERS** =	MCC evaluation	
GERS* =	Screened out by relay GERS, comparison to same model Relay Functionality Review	
GEPS =	Relay Functionality Review printed, see body of Attachment G	
No info =	No make and model info, can't locate during walkdown	
No GERS =	No relay GERS available / require further evaluation	
No info =	No make and model info, can't locate during walkdown	
OK*** =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY DBF Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC,ID ATTACHMENT F

Date: 12/12/95 Page:13

ID	MAKE	DESC	RLY_ENER	NO_NC	CAB_ID	LOCATION	STATUS	REMARK
HSR(DG-A)-A312	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
HSR(DG-A)-H7A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
SDR (A) (Note 1)-2-DG-27A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
SDR (A) (Note 1)-2-DG-95A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
SDR (A) (Note 1)-2-DG-96A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
SDR (A) (Note 1)-A312	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
SDR (A) (Note 1)-H7A	ITE	CLASS J	NO	NO	T040	A D/G	GERS*	
					T041	B D/G	the summer succession of the	Memo

T041

The essential relays in T041 were spot checked during the relay walkdown. SRT noted only two types of relays exist inside the cabinet, namely ITE Class J control relays or Agastat E2400s or 7000s series timing relays. For relays that does not have manufacturer information, it was assumed to be an ITE Class J control relay (of the two types of relay inside cabinet, ITE has lower capacity).

Modification for the diesel generator control system was performed in 1993, purpose was to replace the governor and its associated controls, the new control components are located in seperated wall mounted enclosure. All relays associated with the mod have been gualified to IEEE 344-1975, no additional relay screening necessary. Reference NUSCO PA 91-056, PDCR 2-071-92, and SQR 92-83.

4(DG-B)-2-DG-27B	T041	B D/G	GERS*
4(DG-B)-2-DG-95B	T041	B D/G	GERS*
4(DG-B)-2-DG-96B	T041	B D/G	GERS*
4(DG-B)-H7B	TO41	B D/G	GERS*
5A-H7B	T041	B D/G	GERS*
ALR-RELAY SDR (B)	TC41	B D/G	GERS*
CC1-RELAY SDR (B)	T041	B D/G	GERS*
CCPA-RELAY SDR (B)	T041	B D/G	GERS*
CR1-RELAY SDR (B)	T041	B D/G	GERS*
CR2-RELAY SDR (B)	T041	B D/G	GERS*
CTH1-RELAY SDR (B)	1041	B D/G	GERS*
EOR-RELAY SDR (B)	T041	B D/G	GERS*
EOS-RELAY SDR (B)	T041	B D/G	GERS*

 STATUS Notes: Accept= Bad if non-1E = Bkr Cap = Cap vs. Dem= GERS* = GERS* = GERS = No info = No GERS = No info = OK*** = CARS* =	Further circuit review by lead relay reviewers determined contact Chatter Acceptable Relay is a Bad Actor if it was procured non-1E Screened out by breaker capacity, i.e. 42s, 49s, 52s devices Outlier, due to relay capacity not enveloping demand MCC evaluation Screened out by relay GERS, comparison to same model Relay Functionality Review Relay Functionality Review printed, see body of Attachment G No make and model info, can't locate during walkdown No relay GERS available / require further evaluation No make and model info, can't locate during walkdown Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	

MP2 A-46 Seismic Capacity Evaluation of Essential Relays Summary List C:\GIP\PROJ0025\RELAY.DBF ATTACHMENT F Sort = CAB_ID, MAKE, DESC, RLY_ENER, NO_NC, ID

ID	MAKE	DESC	RLY_ENER	NO NC	CAB ID	LOCATION	STATUS		REMARK
FPLA-RELAY SDR (B)					T041	B D/G	GERS*	and the second	TALLARY WAR
IL2-RELAY SDR (B)					T041	B D/G	GERS*		
OPL1-RELAY SDR (B)					T041	B D/G	GERS*		
OPL2-RELAY SDR (B)					T041	B D/G	GERS*		
OPL3-RELAY SDR (B)					T041	B D/G	GERS*		
OPS(DG-8)-2-DG-278					T041	B D/G	GERS*		
OPS(DG-B)-2-DG-95B					T041	B D/G	GERS*		
OPS(DG-B)-2-DG-96B					T041	B D/G	GERS*		
OPS(DG-B)-A401					T041	B D/G	GERS*		
OPS(DG-B)-H7B					T041	B D/G	GERS*		
OPS(DG-B)-RELAY SDR (B)					T041	B D/G	GERS*		
OTHA-RELAY SDR (B)					7041	B D/G	GERS*		
SSW (250)(DG-B)-2-DG-27B					T041	B D/G	GERS*		
SSW (250)(DG-B)-2-DG-95B					T041	B D/G	GERS*		
SSW (250)(DG-B)-2-DG-96B					T041	B D/G	GERS*		
SSW (250)(DG-B)-H7B					T041	B D/G	GERS*		
SSW (810)(DG-B)-2-DG-27B					T041	B D/G	GERS*		
SSW (810)(DG-B)-2-DG-95B					T041	B D/G	GERS*		
SSW (810)(DG-B)-2-DG-96B					T041	B D/G	GERS*		
SSW (810)(DG-B)-A401					T041	B D/G	GERS*		
SSW (810)(DG-B)-RELAY SDR (B)					T041	B D/G	GERS*		
TD2-RELAY SDR (B)					T041	B D/G	GERS*		
TD6(DG-B)-RELAY SDR (B)					T041	B D/G	GERS*		
TD7(DG-B)-2-DG-27B					T041	B D/G	GERS*		
TD7(DG-B)-2-DG-95B					T041	B D/G	GERS*		
TD7(DG-B)-2-DG-96B					T041	B D/G	GERS*		
1D7(DG-8)-RELAY SDR (8)					T041	B D/G	GERS*		
TD1(DG-B)-2-DG-27B	AGASTAT	2422PC	YES/NO	NO/NC	T041	B D/G	GERS		
TD1(DG-B)-2-DG-95B	AGASTAT	2422PC	YES/NO	NO/NC	T041	B D/G	GERS*		
TD1(DG-B)-2-DG-96B	AGASTAT	2422PC	YES/NO	PO/NC	T041	B D/G	GERS*		
TD1(DG-B)-H75	AGASTAT	2422PC	YES/NO	NO/NC	T041	B DAG	GERS*		
TD1(DG-B)-RELAY SDR (B)	AGASTAT	2422PC	YES/NO	NO/NC	T041	B D/G	GERS*		
5(DG-B)-H7B	AGASTAT	2422PE	YES/NO	NO/NC	T041	B D/G	GERS*		
5(DG-B)-RELAY SDR (B)	AGASTAT	2422PE	YES/NO	NO/NC	T041	B D/G	GERS*		
TD6(DG-B)-H7B	AGASTAT	7022PA	YES/NO	NC	T041	B D/G	GERS		
5X-H7B	ITE	CLASS J			T041	B D/G	GERS		
CPL-RELAY SDR (B)	ITE	CLASS J			T041	B D/G	GERS*		
CT1-RELAY SDR (B)	ITE	CLASS J			7041	B D/G	GERS*		

1

.

STATUS Notes.

•

Accept=	Further circuit review by lead relay reviewers determined contact Chatter Acceptable	
Bad if non-1E =	Relay is a Bad Actor if it was procured non-1E	
Bkr Cap =	Screened out by breaker capacity, i.e. 42s, 49s, 52s devices	
Cap vs. Dem=	Outlier, due to relay capacity not enveloping demand	
GERS** =	MCC evaluation	
GERS* =	Screened out by relay GERS, comparison to same model Relay Functionality Review	
GERS =	Relay Functionality Review printed, see body of Attachment G	
No info =	No make and model info, can't locate during walkdown	
No GERS =	No relay GERS available / require further evaluation	
No info =	No make and model info, can't locate during walkdown	
OK*** =	Relay capacity acceptable, host cabinet is an outlier due to interactions or capacity not meeting demand	
SWGR GERS =	Further circuit review determined contact is screened out using SWGR capacity	
	a second s	

									0
Ð	MAKE	DESC	RLY_ENER	NO NC	CAB_ID	LOCATION	STATUS		REMARK
ESS(DG-B)-H7B	ITE	CLASS J			T041	B D/G	GERS*	A CONTRACTOR OF A CONTRACT	
ESS(DG-B)-RELAY SDR (B)	TE	CLASS J			T041	B D/G	GERS*		
FPL-RELAY SDR (B)	TE	CLASS J			T041	B D/G	GERS*		
SR(DG-B)-2-DG-27B	ITE	CLASS J			T041	B D/G	GERS*		
SR(DG-B)-2-DG-95B	E C	CLASS J			T041	R D/G	GERS.		
SR(DG-B)-2-DG-96B	ITE	CLASS J			T041	8 3/G	GERS*		
SR(DG-B)-H7B	ITE	CLASS J			T041	B D/G	GERS*		
OPI-RELAY SDR (B)	ITE	CLASS J			1041	B D/G	GERS*		
OP2-RELAY S. R (B)	ITE	CLASS J			T041	B D/G	GERS.		
OP3-RELAY SDR (B)	ITE	CLASS J			T041	B D/G	GERS*		
OTH-RELAY SDR (B)	ITE	CLASS J			1041	B D/G	GERS.		
SFR(DG-B)-2-DG-27B	ITE	CLASS J			T041	B D/G	GERS.		
SFR(DG-B)-2-DG-95B	ITE	CLASS J			1041	B D/G	GERS*		
SFR(DG-B)-2-DG-96B	ITE	CLASS J			1041	B D/G	GERS*		
SFR(DG-B)-H7B	ITE	CLASS J			T041	B D/G	GERS*		
SFR(DG-B)-RELAY SDR (B)	ITE	CLASS J			1041	B D/G	GERS.		
TD1X-H7B	ITE	CLASS J			T041	B D/G	GERS*		
5X-A401	ITE	CLASS J	ON	NO	T041	B D/G	GERS*		
HSR(DG-B)-2-DG-27B	ITE	CLASS J	ON	ON	T041	B D/G	GERS*		
HSR(DG-B)-2-DG-95B	ITE	CLASS J	ON	NO	T041	B D/G	GERS*		
HSR(DG-B)-2-DG-96B	ITE	CLASS J	ON	ON	T041	B D/G	GERS*		
HSR(DG-B)-A401	HE	CLASS J	ON	ON	T041	B D/G	GERS.		
HSR(DG-B)-H7B	ITE	CLASS J	ON	ON	T041	B D/G	GERS*		
SDR (B) (Note 2)-2-DG-27B	ITE	CLASS J	ON	ON	1041	B D/G	GFRS*		
SDR (B) (Note 2)-2-DG-95B	ITE	CLASS J	ON	ON	T041	B D/G	GEAS*		
SDR (B) (Note 2)-2-DG-96B	ITE	CLASS J	ON	NO	1041	B D/G	GERS*		
SDR (B) (Note 2)-A401	TE	CLASS J	ON	NO	1041	B D/G	GERS.		
SDR (B) (Note 2)-H7B	ITF	CLASS J	NO	UN	TOAT	Diud	Arno.		

Further circuit review by lead relay reviewers determined contact Chatter Acceptable Relay is a Bad Actor if it was procured non-1E Screened out by treaker capacity, i.e. 42s, 49s, 52s devices Outlier. due to relay capacity not enveloping demand MCC evaluation Screened out by relay GERS, comparison to same model Relay Functionality Review Relay Functionality Review printed, see body of Attachment G No make and model info, can't locate during walkdown No relay GERS available / require further evaluation No relay GERS available / nequire further evaluation No relay GERS available / nequire further evaluation No make and model info, can't locate during walkdown No make and model info, can't locate during walkdown No make and model info, can't locate during walkdown No make and model info, can't locate during walkdown No make and model info, can't locate during walkdown No make and the contact is screened out using SWGR capacity not meeting demand Accept= Bad if non-1E = Bkr Cap vs. Denn= GERS* = GERS* = GERS = No info = No GERS = No GERS = No GERS = SWGR GERS =

MIN

STATUS Notes:

USI A-46 RELAY EVALUATION REPORT FOR MILLSTONE UNIT 2

ATTACHMENT G

.....

MILLSTONE UNIT 2 LIST AND DESCRIPTION OF UNRESOLVED RELAY OUTLIERS

(12 Pages)

TITLE	NO. OF PAGES
M2 RELAY CONTACTS OUTLIER SUMMARY LIST	2
OUTLIER SEISMIC VERIFICATION SHEET - BAD ACTOR	2
OUTLIER SEISMIC VERIFICATION SHEET - CAPACITY VS. DEMAND	3
OUTLIER SEISMIC VERIFICATION SHEET - NO GERS	2
OUTLIER SEISMIC VERIFICATION SHEET - NO GERS	1
OUTLIER SEISMIC VERIFICATION SHEET - NO INFO	2
TOTAL NUMBER OF PAGES FO? SEWS >>>	12

M2 A-46 OUTLIER RELAY CONTACTS

M2OUTRLY XLS

12/14/95

No. CONTACT_ID	MAKE	DESC	RELAY_ENE	NO_NO	DRAWING	CAB_ID	BLDG	ELEV	DUP_RLY	LOCATIONT	RLY_REVIEW
1 87A/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	32041 SH. 1	24C	AB	31.50		A312	Bad if non-1E / Cap vs. De
2 87B/A312-RELAY SDR (A)	GE-IJD	121JD52A11A	NO	NO	32041 SH 1	24C	AB	31 50	1	A312	Bad if non-1E / Cap vs. De
3 87C/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	32041 SH. 1	24C	AB	31.50		A312	Bad if non-1E / Cap vs. De
4 87A/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	32041 SH 19	24D	AB	54.50	1	A401	Bad if non-1E / Cap vs. De
5 87B/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	32041 SH 19	240	AB	54 50		A401	Bad if non-1E / Cap vs. De
6 87C/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	32041 SH. 19	24D	AB	54.50		A401	Bad if non-1E / Cap vs. De
1 86-A312	GE-HEA	HEA61B	NO	NO	32041 SH 1	24C	AB	31.50		A312	Cap vs. Dem
2 86/A312-RELAY SDR (A)	and the second sec	HEA61B	NO	NO	32041 SH 7	24C	AB	31 50		A312	Cap vs. Dem
3 86-2-A305		12HFA151A2H	NO	NO	32002 SH 11	24C	AB	31 50		A304	Cap vs. Dem
4 86-2/22S3-24C2-A312			NO	NO	32041 SH 1	24C	AB	31.50		A302	Cap vs. Dem
5 86X-A305	1	HGA11W	NO	NO	32002 SH 13	24C	AB	31.50		A305	Cap vs. Dem
6 50/51A-A303	GE-IAC	121AC53B104A		NO	32002 SH 3	24C	AB	31.50		A303	Cap vs. Dem
7 50/51A-A306	GE-IAC	121AC66K8A	NO	NO	32013 SH 5	24C	AB	31.50	the second second		
8 50/51A-A307	GE-IAC	121AC66K8A	NO	NO	30044 SH 3	24C	AB		And and a second se	A306	Cap vs. Dem
9 50/51B-A303	GE-IAC	121AC53B104A	and the second se	NO				31.50	1	A307	Cap vs. Dem
	A Contractor Contractor				32002 SH 3	24C	AB	31.50	and the second sec	A303	Cap vs. Dem
10 50/51B-A306	GE-IAC	12IAC66K8A	NO	NO	32013 SH 5	24C	AB	31.50		A306	Cap vs. Dem
11 50/51B-A307	GE-IAC	12IAC66K8A	NO	NO	30044 SH 3	24C	AB	31.50	4	A307	Cap vs. Dem
12 50/51C-A303	GE-IAC	12IAC53B104A	An institution of the second sec	NO	32002 SH. 3	24C	AB	31.50		A303	Cap vs. Dem
13 50/51C-A306	GE-IAC	12IAC66K8A	NO	NO	32013 SH 5	24C	AB	31 50	and the second se	A306	Cap vs. Dem
14 50/51C-A307	GE-IAC	121AC66K8A	NO	NO	30044 SH 3	24C	AB	31.50	And a second	A307	Cap vs. Dem
15 51-A312	GE-IAC	12IAC53A3A	NO	NO	32002 SH 1	24C	AB	31.50	and the second sec	A302	Cap vs. Dem
16 51A-A305	GE-IAC	12IAC53A101A		NO	32002 SH. 11	24C	AB	31.50	and the second sec	A505	Cap vs. Dem
17 51A-A305	GE-IAC	12IAC53A101A		NO	32002 SH. 11	24C	AB	31.50	the second se	A305	Cap vs. Dem
18 51A-A305	GE-IAC	12IAC53A101A		NO	32002 SH. 11	24C	AB	31.50	and the second se	A304	Cap vs. Dem
19 51B-A305	and the second s	12IAC53A101A		NO	32002 SH. 11	24C	AB	31.50		A304	Cap vs. Dem
20 51B-A305	GE-IAC	12IAC53A101A	And the second se	NO	32002 SH. 13	24C	AB	31.50		A305	Cap vs. Dem
21 51C-A305	and the second sec	12IAC53A101A		NO	32002 SH. 11	24C	AB	31.50	and the second se	A304	Cap vs. Dem
22 51C-A305		12IAC53A101A	and the second se	NO	32002 SH. 13	24C	AB	31.50		A305	Cap vs. Dem
23 51GS-A305	GE-IAC	12IAC53A3A	NO	NO	32002 SH 11	24C	AB	31 50	Y	A304	Cap vs. Dem
24 51GS-A305	GE-IAC	12IAC53A3A	NO	NO	32002 SH. 11	24C	AB	31.50		A305	Cap vs. Dem
25 51GS-A312	GE-IAC	121AC53A3A	NO	NO	32002 SH 1	24C	AB	31.50	Y	A302	Cap vs. Dem
26 50-A312	GE-PJC	12PJC11X3A	NO	NO	32041 SH. 1	24C	AB	31.50	1	A311A	Cap vs. Dem
27 50GS-A303	GE-PJC	121PJC11AV1A	NO	NO	32002 SH. 3	24C	AB	31.50	1	A303	Cap vs. Dem
28 50GS-A306	GE-PJC	121PJC11AV1A	NO	NO	32013 SH 5	24C	AB	31.50	1	A306	Cap vs. Dem
29 50GS-A307	GE-PJC	121PJC11AV1A	NO	NO	32012 SH. 11, 30044 SH 3	24C	AB	31.50	1	A307	Cap vs. Dem
30 50GS-A312	GE-PJC	12PJC11AV	NO	NO	32041 SH 1	24C	AB	31.50		A312	Cap vs. Dem
31 86-A401	GE-HEA	HEA61B	NO	NO	30041 SH 2	24D	AB	54 50			Cap vs. Dem
32 86/15G-13U-2 (Note 15)-A408	GE-HEA	HEA61B	NO	NO/NC	32041 SH. 2	24D	AB	54.50		A401	Cap vs. Dem
33 86/A401-RELAY SDR (B)		HEA61B	NO	NO	32041 SH 19	24D	AB	54.50			Cap vs. Dem
34 86-1/22S3-24D-2 (Note 16)-A40	1.000			NO	32002 SH 2	24D	AB	54.50		a contract of the second se	Cap vs. Dem
35 86-1/24D-1T-2-A408		12HFA151A2H		NO	32002 SH 12	24D	AB	54 50	the second s	A410	Cap vs. Dem
36 86-2-A408		12HFA151A2H		NO			1	54.50			
37 86-2-A408		12HFA151A2H		NC	32002 SH 12	A real of the second seco		31.50	Contraction of the second s	and the second se	Cap vs. Dem
38 86-2/22S3-24D-2-A401		12HFA151A2H		NO	32041 SH 2		AB	54.50	Contraction and the second second		Cap vs. Dem
39 86-A408		12HFA151A2H		NC					and the second se		
40 86X-A408		HGA11W	NO	NO	32002 SH 14	24D	AB	54.50	and the second se		Cap vs. Dem
41 50/51A-A406		and the second sec	the second s	And the second s	32002 SH 14		AB	54.50			Cap vs. Dem
			NO	NO	30044 SH 8	and the second se	AB	54 50	and the second se		Cap vs. Dem
42 50/51A-A407	and the second se		NO	NO	30044 SH. 8		AB	54.50	and the second se		Cap vs. Dem
43 50/51A-A409	GE-IAC	12IAC53B104A	NO	NO	30044 SH 9	24D	AB	54.50	1	A409	Cap vs. Dem

M2 A-46 OUTLIER RELAY CONTACTS

M2OUTRLY XLS

12/14/95

No. CONTACT_ID	MAKE	DESC	RELAY_ENE	NO_NC	DRAWING		CAB_ID	BLDG	ELEV DUP_RLY	LOCATIONT	RLY R	EVIEW
44 50/51B-A406	GE-IAC	121AC66K8A	NO	NO	30044 SH	8	24D	AB	54.50	A406	Cap vs.	Dem
45 50/51B-A407	GE-IAC	12IAC66K8A	NO	NO	30044 SH	8	24D	AB	54.50	A407	Cap vs.	Dem
46 50/51B-A409	GE-IAC	12IAC53B104A	NO	NO	30044 SH	9	24D	AB	54.50	A409	Cap vs.	Dem
47 50/51C-A406	GE-IAC	12IAC66K8A	NO	NO	30044 SH.	8	24D	AB	54 50	A406	Cap vs.	Dem
48 50/51C-A407	GE-IAC	12IAC66K8A	NO	NO	30044 SH	8	24D	AB	54.50	A407	Cap vs.	Dem
49 50/51C-A409	GE-IAC	12IAC53B104A	NO	NO	30044 SH.	9	24D	AB	54.50	A409	Cap vs.	Dem
50 51-A401	GE-IAC	121AC53A101A	NO	NO	32002 SH	2	24D	AB	54.50 Y	A411	Cap vs.	Dem
51 51A-A408	GE-IAC	121AC53A101A	NO	NO	32002 SH	14	24D	AB	54 50	A408	Cap vs.	Dem
52 51A-A408	GE-IAC	12IAC53A101A	NO	NO	32002 SH	12	24D	AB	54.50	A410	Cap vs.	
53 51B-A408	GE-IAC	12IAC53A101A	NO	NO	32002 SH	14	24D	AB	54.50	A408	Cap vs.	
54 51B-A408	GE-IAC	12IAC53A101A	NO	NO	32002 SH	12	24D	AB	54.50	A410	Cap vs.	
55 51C-A408	GE-IAC	12IAC53A101A	NO	NO	32002 SH	14	24D	AB	54.50	A408	Cap vs.	
56 51C-A408	GE-IAC	12IAC53A101A	NO	NO	32002 SH	12	24D	AB	54.50	A410	Cap vs.	
57 51GS-A401	GE-IAC	IAC53A	NO	NO	32002 SH	2	24D	AB	54.50 Y	A411	Cap vs.	
58 51GS-A408	GE-IAC	121AC53A3A	NO	NO	32002 SH		24D	AB	54.50 Y	A410	Cap vs.	
59 51GS-A408	GE-IAC	121AC53A3A	NO	NO	30044 SH		24D	AB	54.50	A408	Cap vs.	
60 50-A401	GE-PJC	12PJC11X3A	NO	NO	32041 SH		24D	AB	54.50	A401	Cap vs	
61 50GS-A401	GE-PJC	12PJC11AV1A	NO	NO	32041 SH	2	24D	AB	54 50	A401	Cap vs.	
62 50GS-A406	GE-PJC	12PJC11AV1A	NO	NO	32012 SH	12. 30044 SH 8	24D	AB	54 50	A406	Cap vs.	
63 50GS-A407	GE-PJC	12PJC11AV1A	NO	NO	30044 SH		24D	AB	54.50	A407	Cap vs.	
64 50GS-A409		12PJC11AV1A	NO	NO	30044 SH		24D	AB	54 50	A409	Cap vs.	
65 86-1/21S3-24E-2-A408		HFA51A	NO	NO	32002 SH		24E	AB	31.50 Y	A505	Cap vs.	
66 86-2-A305		HFA51A	NO	NO	32002 SH		24E	AB	31.50 Y	A505	Cap vs.	
67 50/51A-A502	GE-IAC	121AC56K8A	NO	NO	30044 SH		24E	AB	31.50	A502	Cap vs.	
68 50/51B-A502	GE-IAC	121AC66K8A	NO	NO	30044 SH		24E	AB	31.50	A502	Cap vs.	
69 50/51C-A502	GE-IAC	12IAC66K8A	NO	NO	30044 SH		24E	AB	31.50	A502	Cap vs.	
70 51A-A408	GE-IAC	121AC53A101A		NO	32002 SH		24E	AB	31.50	A505	Cap vs.	
71 51B-A305	GE-IAC		NO	NO	32002 SH		24E	AB	31.50	A505	Cap vs.	
72 518-A408	GE-IAC	121AC53A101A	1 (C) (P)	NO	32002 SH		24E	AB	31.50	A505	Cap vs.	
73 51C-A305	GE-IAC	121AC53A101A	the second se	NO	32002 SH		24E	AB	31.50	A505	Cap vs.	
74 51C-A408	GE-IAC	121AC53A101A		NO	32002 SH		24E	AB	31.50	A505	Cap vs.	
75 50GS-A305		121PJC11AV1A		NO	32002 SH		24E	AB	31.50 Y	A505	Cap vs.	
76 50GS-A408		121PJC11AV1A		NO	32002 SH		24E	AB	31.50 Y	A505	Cap vs.	
77 50GS-A502		121PJC11AV1A		NO	32013 SH	and the second se	24E	AB	31.50	A502	Cap vs.	
1100001002	00100				02010 011		E.A.C.	AD .	51.50	MUGE	Cap vs.	Denti
1 32-A312	GE-ICW	12ICW51A2A	NO	NO	32041 SH	1	24C	AB	31.50	A312	No GER	2
2 51V-A312		121JCV52A9A	NO	NO	32041 SH		24C	AB	31.50	A312	No GER	Contraction in the second second second
3 32-A401		121CW51A2A	NO	NO	32041 SH		240 24D	AB	54.50	A401	No GER	The second
4 51V-A401		121JCV52A9A	NO	NO	32041 SH		24D	AB	54.50	A401	No GER	The second s
5 59-A312		12NGV22A1A	NO	NO	32041 SH		C38	WH	14.50	C38	No GER	
6 59-A401		12NGV22A1A	NO	NO	32041 SH		C39	WH	14.50	C39	No GER	
0 00-7401	GE-NGV	TENOVEENIN	NO	no	32041 SH	2	0.39	VVI1	14.50	0.59	NO GER	0
1 CF4-RELAY SDR (A)	and the second				32041 SH	6	C38	WH	14.50	C38	No Infr	
2 CR4-RELAY SDR (B)		the second second			32041 SH		C39	WH	14.50	C38	No Info No Info	
3 2HCR-B0506			NO	NO				10.000				
			NO	1	32003 SH		DC1	AB	14.50	DC1	No Info	
4 2HCR-B0607			NO	NO	32003 SH	41	DC2	AB	14.50	DC2	No Info	

NUSCO MILLSTONE OUTLIER SEISMIC VERIFICATI		GIP Rev 2, Corrected 2/14/92 Sheet 1 of 2
ID : 87A/A312-RELAY SDR (A) (Rev. 0)	Class : RELAY	and a second and a second s
Description : 12IJD52A11A	anne Anna anna ann an suireann ann an ann an ann an ann an ann an a	Venezi de se
Building : AB Fic	oor El. : 31.50	Room, Row/Col : LOWER 4160V

1. OUTLIER ISSUE DEFINITION - Essential Relays

a. Identify all the screening guidelines which are not met. (Check more than one if several guidelines could not be satisfied.)

Capacity vs. Demand	Х
Mounting, Type, Location	
Other	Х

b. Describe all the reasons for the outlier (i.e., if all the listed outlier issues were resolved, then the signatories would consider this item of equipment to be verified for seismic adequacy).

Relay is considered Bad Actor if Non Class 1E.

Capacity does not envelop Demand.

The contacts listed in the comment section are being tracked by this OSVS.

2. PROPOSED METHOD OF OUTLIER RESOLUTION (Optional)

a. Defined proposed method(s) for resolving outlier.

NNECO to verified if relays were purchased Class 1E.

Pursue the possibility of an Operator Action to reset relays for the Medium Voltage Switchgear.

 Provide information needed to implement proposed method(s) for resolving outlier (e.g., estimate of fundamental frequency).

3. COMMENTS

ID	MAKE	DESC RELAY	ENER	NO NC	CAB ID
87A/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	24C
87B/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	24C
87C/A312-RELAY SDR (A)	GE-IJD	12IJD52A11A	NO	NO	24C
87A/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	24D
87B/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	24D
87C/A401-RELAY SDR (B)	GE-IJD	12IJD52A11A	NO	NO	24D

NUSCO MILLSTONE UNIT 2 OUTLIER SEISMIC VERIFICATION SHEET (OSVS)		GIP Rev 2, Corrected 2/14/92 Sheet 2 of 2
ID : 87A/A312-RELAY SDR (A) (Rev. 0)	Class : RELAY	
Description : 12IJD52A11A	and a standard standa	
Building : AB	Floor El. : 31.50	Room, Row/Col : LOWER 4160V

4. CERTIFICATION:

The information on this OSVS is, to the best of our knowledge and belief, correct and accurate, and resolution of the outlier issues listed on the previous page will satisfy the requirements for this item of equipment to be verified for seismic adequacy:

Approved by:

_____ Date: 12/14/95 _____ Date: 12/14/95 _____ Don Ruche _____ 12.14.95

NUSCO MILLSTONE UNIT 2 OUTLIER SEISMIC VERIFICATION SHEET (OSVS)		GIP Rev 2, Corrected 2/14/92 Sheet 1 of 3
ID: 86-A312 (Rev. 0)	Class : RELAY	ан на на селото и на солото со
Description : HEA61B		
Building : AB	Floor El. : 31.50	Room, Row/Col : LOWER 4160V

1. OUTLIER ISSUE DEFINITION - Essential Relays

a. Identify all the screening guidelines which are not met. (Check more than one if several guidelines could not be satisfied.)

Capacity vs. Demand	Х
Mounting, Type, Location	
Other	

b. Describe all the reasons for the outlier (i.e., if all the listed outlier issues were resolved, then the signatories would consider this item of equipment to be verified for seismic adequacy).

Capacity does not envelop Demand.

The contacts listed in the comment section are being tracked by this OSVS.

2. PROPCSED METHOD OF OUTLIER RESOLUTION (Optional)

a. Defined proposed method(s) for resolving outlier.

NNECO to performe testing of these relays in conjunction with breaker tripping circuit / devices to determine if lockout / seal-in will occur.

Pursue the possibility of an Operator Action to reset relays for the Medium Voltage Switchgear.

 Provide information needed to implement proposed method(s) for resolving outlier (e.g., estimate of fundamental frequency).

3. COMMENTS

ID	MAKE	DESC	RELAY EN	ER NO NC	CAB ID
86-A312	GE-HEA	HEA61B	NO	NO	24C
86/A312-RELAY SDR (A)	GE-HEA	HEA61B	NO	NO	24C
86-2-A305	GE-HFA	12HFA151A2H	NO	NO	24C
86-2/2253-24C2-A312	GE-HFA	12HFA151A2H	NO	NO	24C
86X-A305	GE-HGA	HGA11W	NO	NO	24C
51A-A305	GE-IAC	12IAC53A101A	NO	NO	24C
51A-A305	GE-IAC	12IAC53A101A	NO	NO	24C
51A-A305	GE-IAC	121AC53A101A	NO	NO	24C
51B-A305	GE-IAC	121AC53A101A	NO	NO	24C
51B-A305	GE-IAC	121AC53A101A	NO	NO	24C
51C-A305	GE-IAC	12IAC53A101A	NO	NO	24C
51C-A305	GE-IAC	12IAC53A101A	NO	NO	24C
51-A312	GE-IAC	12IAC53A3A	NO	NO	24C
51GS-A305	GE-IAC	12IAC53A3A	NO	NO	24C

NUSCO MILLSTONE UNIT 2			GIP Rev 2, Corrected 2/14/92 Sheet 2 of 3		
OUTLIER SEISMIC VERIFICATION SHEET (OSVS) ID : 86-A312 (Rev. 0) Class : RELAY		Sneet 2 of	3		
Description : HEA61B		CIASS . RELAT			
Building : AB	Floor	EI. : 31.50	Room, Rov	V/Col : LOWER	4160V
15					
ID 51GS-A305	MAKE	DESC	RELAY_ENE		CAB_I
	GE-IAC	12IAC53A3A	NO	NO	24C
51GS-A312	GE-IAC	12IAC53A3A	NO	NO	24C
50/51A-A303	GE-IAC	12IAC53B104A	NO	NO	24C
50/51B-A303	GE-IAC	12IAC53B104A	NO	NO	24C
50/51C-A303	GE-IAC	12IAC53B104A	NO	NO	24C
50/51A-A306	GE-IAC	12IAC66K8A	NO	NO	24C
50/51A-A307	GE-IAC	12IAC66K8A	NO	NO	24C
50/51B-A306	GE-IAC	121AC66K8A	NO	NO	24C
50/51B-A307	GE-IAC	12IAC66K8A	NO	NO	24C
50/51C-A306	GE-IAC	12IAC66K8A	NO	NO	24C
50/51C-A307	GE-IAC	121AC66K8A	NO	NO	24C
50GS-A303	GE-PJC	121PJC11AV1A	NO	NO	24C
50GS-A306	GE-PJC	121PJC11AV1A	NO	NO	24C
50GS-A307	GE-PJC	121PJC11AV1A	NO	NO	24C
50GS-A312	GE-PJC	12PJC11AV	NO	NO	24C
50-A312	GE-PJC	12PJC11X3A	NO	NO	24C
86-A401	GE-HEA	HEA61B	NO	NO	24D
B6/A401-RELAY SDR (B)	GE-HEA	HEA61B	NO	NO	24D
86/15G-13U-2 (Note 15)-A408	GE-HEA	HEA31B	NO	NO/NC	24D
86-2-A408	GE-HFA	12HFA151A2H	NO	NC	24D
86-A408	GE-HFA	12HFA151A2H	NO	NC	24D
86-1/22S3-24D-2 (Note 16)-A408		12HFA151A2H	NO	NO	24D
86-1/24D-1T-2-A408	GE-HFA	12HFA151A2H	NO	NO	24D
86-2-A408	GE-HFA	12HFA151A2H	NO	NO	24D
86-2/22S3-24D-2-A401	GE-HFA	12HFA151A2H	NO	NO	24D
B6X-A408	GE-HGA	HGA11W	NO	NO	24D
51-A401	GE-IAC	12IAC53A101A	NO	NO	
51A-A408	GE-IAC	121AC53A101A	NO	NO	24D
51A-A408	GE-IAC	12IAC53A101A	NO		24D
51B-A408	GE-IAC	12IAC53A101A		NO	24D
51B-A408	GE-IAC	12IAC53A101A	NO	NO	24D
51C-A408	GE-IAC		NO	NO	24D
51C-A408		12IAC53A101A 12IAC53A101A	NO	NO	24D
51GS-A408	GE-IAC	the second second second second second	NO	NO	24D
51GS-A408	GE-IAC	12IAC53A3A	NO	NO	24D
	GE-IAC	12IAC53A3A	NO	NO	24D
50/51A-A409	GE-IAC	12IAC53B104A	NO	NO	24D
50/51B-A409	GE-IAC	12IAC53B104A	NO	NO	24D
50/51C-A409	GE-IAC	12IAC53B104A	NO	NO	24D
50/51A-A406	GE-IAC	12IAC66K8A	NO	NO	24D
0/51A-A407	GE-IAC	12IAC66K8A	NO	NO	24D
50/51B-A406	GE-IAC	121AC66K8A	NO	NO	24D
50/51B-A407	GE-IAC	12IAC66K8A	NO	NO	24D
50/51C-A406	GE-IAC	121AC66K8A	NO	NO	24D
50/51C-A407	GE-IAC	121AC66K8A	NO	NO	24D
51GS-A401	GE-IAC	IAC53A	NO	NO	24D
50GS-A401	GE-PJC	12PJC11AV1A	NO	NO	24D
50GS-A406	GE-PJC	12PJC11AV1A	NO	NO	24D
50GS-A407	GE-PJC	12PJC11AV1A	NO	NO	24D
50GS-A409	GE-PJC	12PJC11AV1A	NO	NO	24D

NUSCO MILLSTONE UNIT 2 OUTLIER SEISMIC VERIFICATION SHEET (OSVS)			GIP Rev 2 Sheet 3 of	, Corrected 2/14 3	4/92
ID: 86-A312 (Rev. 0)	and a literative proof solution of the descent on data	Class : RELAY	and spin strain of the spin stra	and and a second second second as a second	and the second
Description : HEA61B			a the spanned for a first section is shall such as an an an and so		
Building : AB	Floor	El.: 31.50	Room, Ro	w/Col: LOWER	4160V
ID	MAKE	DESC	RELAY EN	ER NO NC	CAB ID
50-A401	GE-PJC	12PJC11X3A	NO	NO	24D
86-1/21S3-24E-2-A408	GE-HFA	HFA51A	NO	NO	24E
86-2-A305	GE-HFA	HFA51A	NO	NO	24E
51A-A408	GE-IAC	12IAC53A101A	NO	NO	24E
51B-A305	GE-IAC	12IAC53A101A	NO	NO	24E
51B-A408	GE-IAC	12IAC53A101A	NO	NO	24E
51C-A305	GE-IAC	12IAC53A101A	NO	NO	24E
51C-A408	GE-IAC	12IAC53A101A	NO	NO	24E
50/51A-A502	GE-IAC	12IAC66K8A	NO	NO	24E
50/51B-A502	GE-IAC	12IAC66K8A	NO	NO	24E
50/51C-A502	GE-IAC	12IAC66K8A	NO	NO	24E
50GS-A305	GE-PJC	121PJC11AV1A	NO	NO	24E
50GS-A408	GE-PJC	121PJC11AV1A	NO	NO	24E
50GS-A502	GE-PJC	121PJC11AV1A	NO	NO	24E

Note: Based on SRT review of F & H Reports 61267.1 / .2/ .3/ .4/ .5/ & .6 performed for CP&L, it appears that these relays may have higher capacity when only determining if lockout or seal-in will occur. Positive confirmation of adequacy may require additional testing as recommended in section 2 on page 1 of this OSVS.

4. CERTIFICATION:

The information on this OSVS is, to the best of our knowledge and belief, correct and accurate, and resolution of the outlier issues listed on page 1 will satisfy the requirements for this item of equipment to be verified for seismic adequacy:

Approved by: Sing Chu Date: 12/14/95 C.M. Dow Tourdere 12.14-95

NUSCO MILLSTONE UNIT 2 OUTLIER SEISMIC VERIFICATION SHEET (OSVS)		GIP Rev 2, Corrected 2/14/92 Sheet 1 of 2
ID: 32-A312 (Rev. 0)	Class : RELAY	
Description : 12ICW51A2A		
Building : AB	Floor El. : 31.50	Room, Row/Col : LOWER 4160V

1. OUTLIER ISSUE DEFINITION - Essential Relays

a. Identify all the screening guidelines which are not met. (Check more than one if several guidelines could not be satisfied.)

Capacity vs. Demand	
Mounting, Type, Location	
Other	X

b. Describe all the reasons for the outlier (i.e., if all the listed outlier issues were resolved, then the signatories would consider this item of equipment to be verified for seismic adequacy).

The subject relay does not have GERS information. All relays without GERS informations are being tracked by this OSVS and are listed in the comment section.

2. PROPOSED METHOD OF OUTLIER RESOLUTION (Optional)

a. Defined proposed method(s) for resolving outlier.

Persue seismic capacity through testing or vendor data.

Pursue the possibility of an Operator Action to reset relays for the Medium Voltage Switchgear.

 Provide information needed to implement proposed method(s) for resolving outlier (e.g., estimate of fundamental frequency).

3. COMMENTS

ID	MAKE	DESC RELAY	ENER	NO NC	CAB ID
32-A312	GE-ICW	121CW51A2A	NO	NO	24C
32-A401	GE-ICW	12ICW51A2A	NO	NO	24D
51V-A312	GE-IJCV	12IJCV52A9A	NO	NO	24C
51V-A401	GE-IJCV	12IJCV52A9A	NO	NO	24D

NUSCO MILLSTONE UNIT 2 OUTLIER SEISMIC VERIFICATION SHEET (OSVS)		GIP Rev 2, Corrected 2/14/92 Sheet 2 of 2	
ID: 32-A312 (Rev. 0)	Class : RELAY		
Description : 121CW51A2A		ann a bhann an ann bhannar bhann an ann ann ann ann ann ann ann ann	
Building : AB	Floor El. : 31.50	Room, Row/Col : LOWER 4160V	

4. CERTIFICATION:

The information on this OSVS is, to the best of our knowledge and belief, correct and accurate, and resolution of the outlier issues listed on the previous page will satisfy the requirements for this item of equipment to be verified for seismic adequacy:

Approved by: <u>Sing colon</u> Date: <u>12/14/95</u> <u>C.M. Don Downe</u> <u>12.14-95</u>

NUSCO MILLSTONE UNIT 2 OUTLIER SEISMIC VERIFICATION SHEET (OSVS)		GIP Rev 2, Corrected 2/14/92 Sheet 1 of 1
ID: 59-A312 (Rev. 0)	Class : RELAY	
Description : 12NGV22A1A		
Building : WH	Floor El. : 14.50	Room, Row/Col : A D/G

1. OUTLIER ISSUE DEFINITION - Essential Relays

a. Identify all the screening guidelines which are not met. (Check more than one if several guidelines could not be satisfied.)

Capacity vs. Demand	
Mounting, Type, Location	
Other	X

b. Describe all the reasons for the outlier (i.e., if all the listed outlier issues were resolved, then the signatories would consider this item of equipment to be verified for seismic adequacy).

The subject relay does not have GERS information. All relays without GERS informations are being tracked by this OSVS and are listed in the comment section.

2. PROPOSED METHOD OF OUTLIER RESOLUTION (Optional)

a. Defined proposed method(s) for resolving outlier.

Persue seismic capacity through testing or vendor data.

b. Provide information needed to implement proposed method(s) for resolving outlier (e.g., estimate of fundamental frequency).

3. COMMENTS

ID	MAKE	DESC RELAY	ENER	NO NC	CAB ID
59-A312	GE-NGV	12NGV22A1A	NO	NO	C38
59-A401	GE-NGV	12NGV22A1A	NO	NO	C39

4. CERTIFICATION:

The information on this OSVS is, to the best of our knowledge and belief, correct and accurate, and resolution of the outlier issues listed on the previous page will satisfy the requirements for this item of equipment to be verified for seismic adequacy:

Approved by:

<u>Sing Colu</u> Date: 12/14/95 C. M. D. Russu 12.14.95

NUSCO MILLSTON OUTLIER SEISMIC VERIFICA	GIP Rev 2, Corrected 2/14/92 Sheet 1 of 2	
ID : CF4-RELAY SDR (A) (Rev. 0)	Class : RELAY	
Description :	and a second	
Building : WH F	loor El. : 14.50	Room, Row/Col : A D/G

1. OUTLIER ISSUE DEFINITION - Essential Relays

a. Identify all the screening guidelines which are not met. (Check more than one if several guidelines could not be satisfied.)

Capacity vs. Demand	
Mounting, Type, Location	
Other	Х

b. Describe all the reasons for the outlier (i.e., if all the listed outlier issues were resolved, then the signatories would consider this item of equipment to be verified for seismic adequacy).

Unknown make and model, unable to locate during walkdown. The contacts listed below are being tracked by this OSVS.

2. PROPOSED METHOD OF OUTLIER RESOLUTION (Optional)

a. Defined proposed method(s) for resolving outlier.

The status of these contacts is currently indeterminate. This requires further investigation by MP2 Design Engineering.

NNECO MP2 Elec Dept to determine make, model, and location.

 Provide information needed to implement proposed method(s) for resolving outlier (e.g., estimate of fundamental frequency).

3. COMMENTS

ID	MAKE	DESC	RELAY ENER	NO NC	CAB ID
CF4-RELAY SDR (A)					C38
CR4-RELAY SDR (B)					C39
2HCR-B0506			NO	NO	DC1
2HCR-B0607			NO	NO	DC2

NUSCO MILLSTON OUTLIER SEISMIC VERIFICAT	GIP Rev 2, Corrected 2/14/92 Sheet 2 of 2	
ID : CF4-RELAY SDR (A) (Rev. 0)	Class : RELAY	
Description :	and a second	
Building : WH F	loor El. : 14.50	Room, Row/Col : A D/G

4. CERTIFICATION:

The information on this OSVS is, to the best of our knowledge and belief, correct and accurate, and resolution of the outlier issues listed on the previous page will satisfy the requirements for this item of equipment to be verified for seismic adequacy:

Approved by:

<u>Sing Chu</u> <u>C. M. Dhe Reuse</u> <u>12.14-9,5</u> <u>12.14-9,5</u>

USI A-46 RELAY EVALUATION REPORT FOR MILLSTONE UNIT 2

ATTACHMENT H

MILLSTONE UNIT 2 ESSENTIAL RELAYS DETAILED SEISMIC CAPACITY VS. DEMAND EVALUATIONS

(112 Pages)