

SIS (SAFETY INJECTION SIGNAL) RELAY TABLE
FUNCTIONS OF SIS RELAYS

SIS RELAYS - LEFT (ODD NUMBERS)														
CONTACTS	SIS-1	REF. DWG.	SIS-3	REF. DWG.	SIS-5	REF. DWG.	SIS-7	REF. DWG.	SIS-9	REF. DWG.	SIS-11	REF. DWG.	SIS-13	REF. DWG.
1	CLOSE CONT. SUMP DRAIN ISOL. SV1103	E-235	SEAL-IN CONTACT	E-209	SIS WITH STANDBY PWR. AVAIL. CKT. NO. 1	E-209	CLOSE CONT. SUMP DRAIN ISOL. SV1103	E-235	SEAL-IN CONTACT	E-209	SIS WITH STANDBY PWR. AVAIL. CKT. NO. 2	E-209	OPEN SERV. WTR. DISCH. SV0861	E-216
2	OPEN SERV. WTR. TO ENG. SAFE GUARD RM. COOL. VA. SV0078	E-219	S.I. INITIATION ALARM	E-209	CLOSE BORE ACID MAKE-UP STOP VALVE SV2155	E-235	OPEN SERV. WTR. TO ENG. SAFE GUARD RM. COOL. VA. SV0078	E-219	S.I. INITIATION ALARM	E-209	OPEN COMP. CLG. WTR. TO SEAL CLG. SUCTION VA. SV0913	E-239	TRIP PRER. WTR. XFM. FOR BKR'S 152-305 & 152-211	E-253
3	TRIP BLOCK CHARGING PUMP P55C	E-257	CLOSE BORE ACID RECIRC. VALVE SV2150	E-209	CLOSE COMPONENT CLG. WTR. DISCH. FROM CONT. MT SV0911	E-235	CLOSE SERVICE WTR. TO NON-CRITICAL ITEMS W1559	E-219	CLOSE BORE ACID RECIRC. VALVE SV2150	E-209	CLOSE COMP. CLG. WTR. TO FUEL POOL HEAT EXCH. SV0913	E-239	SPARE	E-253
4	S.I. INITIATION ALARM	E-209	START DBA SEQUENCER	E-209	NO-SIS TO START NORMAL SHUTDN. SEQUENCER	E-235	OPEN COMPONENT CLG. WTR. TO SHUTDN. HEAT EXCH. SV0937	E-219	START DBA SEQ.	E-209	ENABLE OPENING COMP. CLG. WTR. TO FUEL POOL HEAT EXCH.	E-239	CLOSE COMP. CLG. WTR. TO RADIWASTE EVAPS SV0944	E-239
5	CLOSE BLOCK CHARGING PUMP P55C	E-257	NO-SIS TO START NORMAL SHUTDN. SEQUENCER	E-209	CLOSE S.I. TANK LEAKAGE VALVE SV3069	E-235	OPEN COMPONENT CLG. WTR. DISCH. FROM SEAL CLG. SV0950	E-219	NO-SIS TO START NORM. SHUTDN. SEQ.	E-209	S.I. INITIATION ALARM	E-209	CLOSE COMP. CLG. WTR. TO RADIWASTE EVAPS SV0977	E-239
6	CLOSE S.I. TANK RELIEF VALVE SV3062	E-245	CLOSE S.I. TANK RELIEF VALVE SV3066	E-235	SPARE	E-235	CLOSE S.I. TANK RELIEF VALVE SV3067	E-245	CLOSE S.I. TANK RELIEF VALVE SV3067	E-245	OPEN SERV. WTR. DISCH. SV0875	E-216	SPARE	E-239

SIS-X (SAFETY INJECTION SIGNAL AUXILIARY) RELAY TABLE
FUNCTIONS WITH SIS & STANDBY POWER AVAILABLE

SIS-X RELAYS - LEFT (ODD NUMBERS)														
CONTACTS	SIS-X1	REF. DWG.	SIS-X3	REF. DWG.	SIS-X5	REF. DWG.	SIS-X7	REF. DWG.	SIS-X9	REF. DWG.	SIS-X11	REF. DWG.	SIS-X13	REF. DWG.
1	START L.P. INJ. PUMP P67B	E-248	OPEN H.P. INJ. LINE MOV3060	E-248	CLOSE VOLUME CONTROL TANK OUTLET MOV2007	E-242	START L.P. INJ. PUMP P67A	E-247	OPEN H.P. INJ. LINE MOV3013	E-248	OPEN BORE ACID PUMPED FEED MOV2140	E-261	OPEN BORE ACID PUMPED FEED MOV2140	E-261
2	START H.P. INJ. PUMP P66B	E-249	OPEN L.P. INJ. LINE MOV3008	E-249	START BORE ACID PUMP P56B	E-209	START H.P. INJ. PUMP P66A	E-209	OPEN H.P. INJ. LINE MOV3066	E-248	START BORE ACID PUMP P56A	E-209	START BORE ACID PUMP P56A	E-209
3	CONT. SPRAY PUMP P50B ON STAND BY	E-251	OPEN L.P. INJ. LINE MOV3010	E-248	OPEN BORE ACID GRAVITY FEED MOV2169	E-241	START H.P. INJ. PUMP P66C	E-251	OPEN H.P. INJ. LINE MOV3066	E-248	START CHG. PUMP P55A	E-257	START CHG. PUMP P55A	E-257
4	OPEN H.P. INJ. LINE MOV3007	E-248	TRIP CONT. CLG. UNIT V68	E-218	OPEN BORE ACID GRAVITY FEED MOV2170	E-241	CONT. SPRAY PUMP P50A ON STAND BY	E-251	OPEN L.P. INJ. LINE MOV3012	E-248	START CHG. PUMP P55B	E-257	START CHG. PUMP P55B	E-257
5	OPEN H.P. INJ. LINE MOV3009	E-248					TRIP CONT. CLG. UNIT V18	E-218	TRIP CONT. CLG. UNIT V25	E-218	START SERV. WTR. PUMP P7A	E-154	START SERV. WTR. PUMP P7A	E-154
6	OPEN H.P. INJ. LINE MOV3062	E-248	CONT. SPRAY PUMP P50C ON STAND BY	E-251	START CHG. PUMP P55C	E-257	OPEN H.P. INJ. LINE MOV3011	E-248	OPEN L.P. INJ. LINE MOV3013	E-248	TRIP CONT. CLG. UNIT V38	E-218	TRIP CONT. CLG. UNIT V38	E-218

CONTACTS	SIS-X7	REF. DWG.	CONTACTS	SIS-8	REF. DWG.	CONTACTS	SIS-7	REF. DWG.	CONTACTS	SIS-X8	REF. DWG.
1	START SERV. WTR. PUMP P7B	E-154	1	CLOSE COMP. CLG. WTR. DISCH. FROM CONT. MT SV0940	E-235	1	OPEN COMP. CLG. WTR. SEAL CLG. SUCTION VALVES SV0913	E-239	1	START SERV. WTR. PUMP P7C	E-154
2	START COMP. CLG. PUMP P52A	E-259	2	CLOSE COMP. CLG. WTR. INLET TO CONT. MT SV0910	E-235	2	OPEN COMP. CLG. WTR. DISCH. FROM SEAL CLG. SV0950	E-239	2	START COMP. CLG. PUMP P52B	E-259
3	START COMP. CLG. PUMP P52C	E-259	3	TRIP BLOCK CHARGING PUMP P55B	E-257	3	OPEN SERV. WTR. DISCH. SV0867	E-217	3		
4			4	OPEN COMP. CLG. WTR. VA TO SHUTDN. HEAT EXCH. SV0937	E-239	4			4		
5			5	OPEN SERV. WTR. DISCH. SV0864	E-216	5			5		
6			6	CLOSE BLOCK CHARGING PUMP P55B	E-257	6			6		

SWO 8428

SUBMERGED ELECT. EQUIP. MOD.

NOTES

- * N.O. CONTACT
- ** N.C. CONTACT - OPENS ON SIS
- FOR RELAY CIRCUITS, SEE E-209, SHEET 1
- SIS-10 RELAY HAS 12 CONTACTS

CONTROLLED COPY

MASTER

2060710

SCALE NONE	DESIGNED	DRAWN C.Y.E.
BECHTEL COMPANY		
PALISADES PLANT		
CONSUMERS POWER COMPANY		
SCHEMATIC DIAGRAM		
SAFETY INJECTION & SEQUENCE		
LOADING CIRCUITS		
JOB No.	DRAWING No.	REV.
5935	E-209 (G)	SH. 4 of 6

14 CHANGED FOR RECORD FOR SWO 8428
13 CHANGED PUMP INJ. PUMP START TO ON STANDBY

APPROVALS - O.S. DATE
CHECKED
JAN 19 1974
M.G. 11/19/74
C.E.S. 11/19/74
R.P.H. 11/19/74

SWD 8428

SUBMERGED ELECT. EQUIP.
MOD.

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P2060710

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BECHTEL COMPANY	
PALISADES PLANT	
CONSUMERS POWER COMPANY	
SCHEMATIC DIAGRAM	
SAFETY INJECTION & SEQUENCE	
LOADING CIRCUITS	
JOB No.	DRAWING No.
5935	E-209
REV.	SH. 4 of 4
14	

16X

9500 E 209140004 TCH DIAGM SAFTY INJ & SEQ LOAD

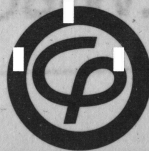
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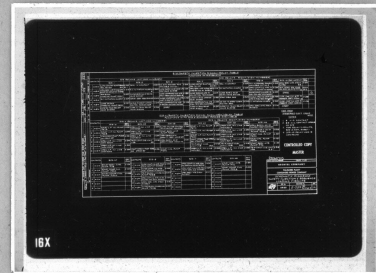
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