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 PACIFIC: 50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Gas & Electric Co. 5000275
 50-323 Diablo Canyon Nuclear Power Plant, Unit 2, Pacific Gas & Electric Co. 05000323

AUTH. NAME: CRANE, P.A. AUTHOR AFFILIATION: Pacific Gas & Electric Co.
 RECIPIENT NAME: STOLZ, J.F. RECIPIENT AFFILIATION: Light Water Reactors Branch 1

SUBJECT: Forwards revised info re results of evaluation to detect effects of moderate energy line breaks on equipment required for safe shutdown. Also forwards revised actions to be taken to protect vulnerable equipment.

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	13 MATL ENG BR	2	2	15 REAC SYS BR	1	1
	16 ANALYSIS BR	1	1	17 CORE PERF BR	1	1
	18 AUX SYS BR	1	1	19 CONTAIN SYS	1	1
	20 I & C SYS BR	1	1	21 POWER SYS BR	1	1
	22 AD SITE TECH	1	0	26 ACCONT ANLYS	1	1
	27 EFFC TRT SYS	1	1	28 RAD ASMT BR	1	1
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	AD PLANT SYS	1	0	AD REAC SAFETY	1	0
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VICE PRESIDENT AND GENERAL COUNSEL

ROBERT OHLBACH
ASSOCIATE GENERAL COUNSEL

CHARLES T. VAN DEUSEN
PHILIP A. CRANE, JR.
HENRY J. LAPLANTE
JOHN B. GIBSON
ARTHUR L. HILLMAN, JR.
CHARLES W. THISSELL
DANIEL E. GIBSON
ASSISTANT GENERAL COUNSEL

December 28, 1979

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BRUCE R. WORTHINGTON
ATTORNEYS

Mr. John F. Stolz, Chief
Light Water Reactors Branch No. 1
Division of Project Management
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Docket No. 50-275
Docket No. 50-323
Diablo Canyon Units 1 and 2

Dear Mr. Stolz:

Our submittal dated September 14, 1979 responded to an informal staff request to evaluate the Diablo Canyon Plant Design for the effects of moderate energy line breaks on equipment required for safe shutdown. Attachments 2 and 3 of that submittal contained the results of that evaluation and the action to be taken to protect any vulnerable equipment.

Subsequent to the above submittal, additional evaluation, design, and construction planning have been completed. As a result, Attachments 2 and 3 have been revised and are attached. A vertical line with an adjacent letter "R" indicates the location of the change.

The September 14, 1979 submittal stated that the plant modifications would be completed by October 30, 1979. This date was not met due to realignment of manpower to other design efforts. The modifications will, however, be completed prior to fuel loading.

Five copies of this submittal have been sent directly to Mr. Bart Buckley.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it to me in the enclosed addressed envelope.

Very truly yours,

Philip A. Crane
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8001080 386

Attachments

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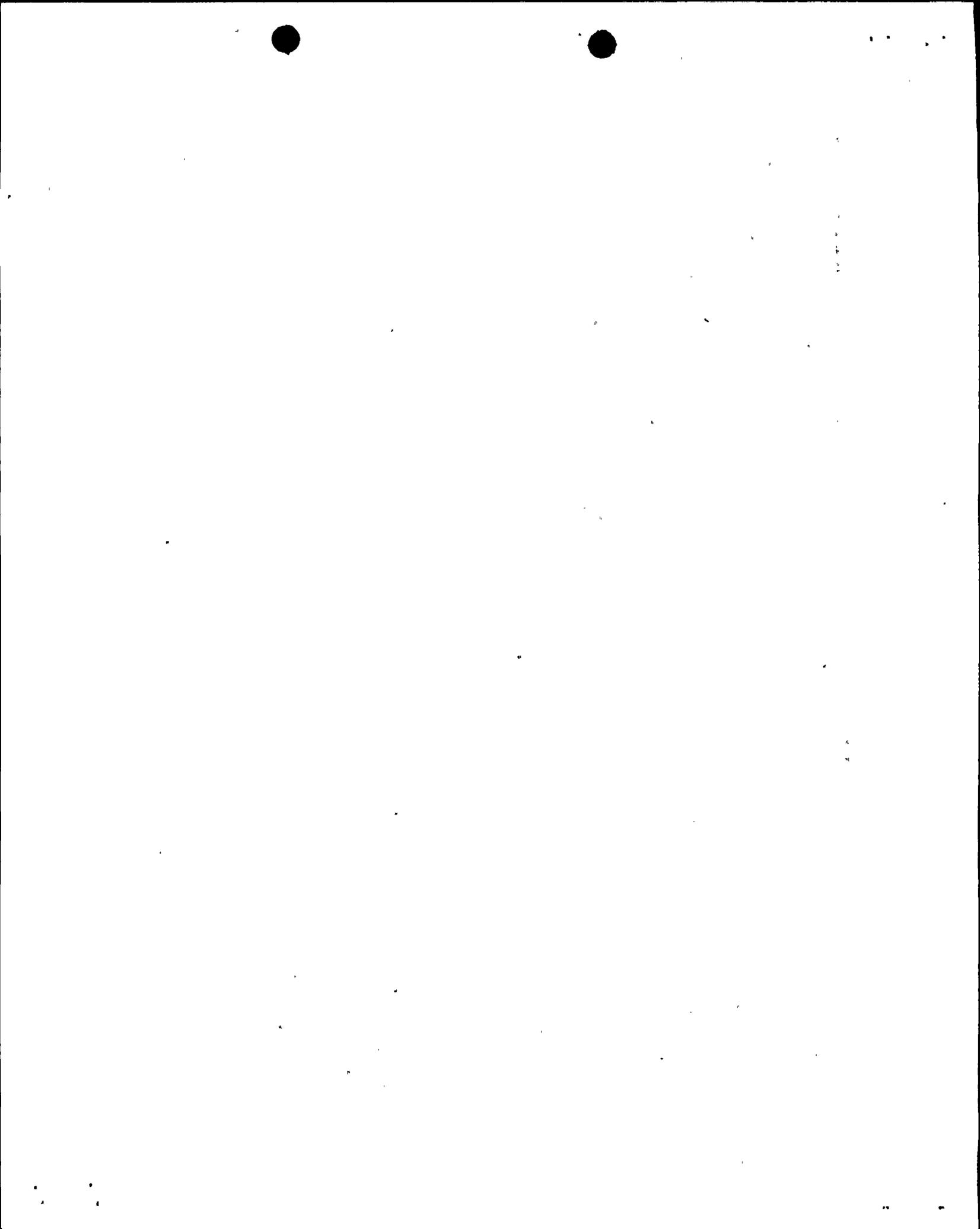
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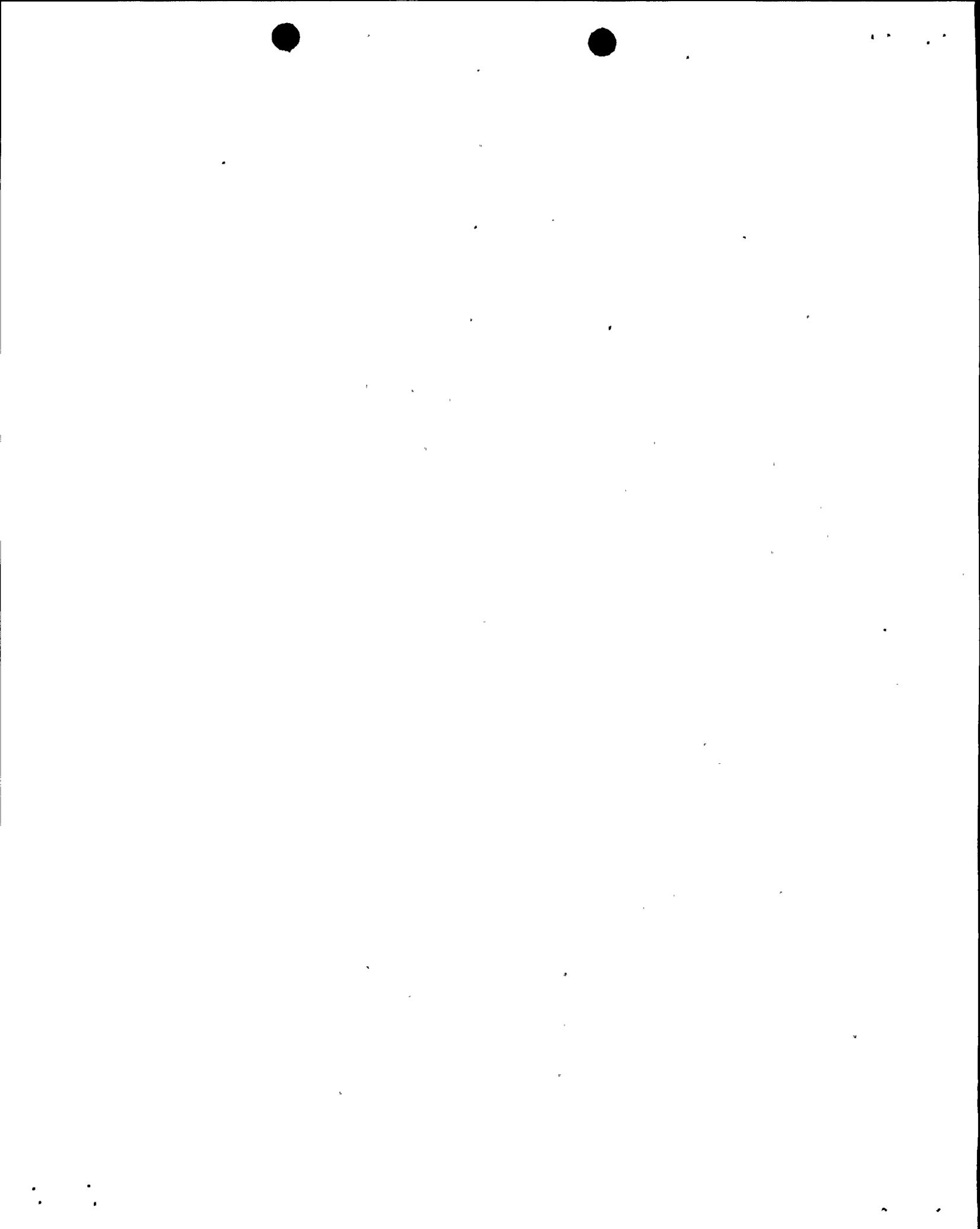
RESULTS OF MODERATE ENERGY LINE BREAK REVIEW FOR EQUIPMENT
AND VALVES REQUIRED FOR HOT SHUTDOWN AND/OR COLD SHUTDOWN

EQUIPMENT OR COMPONENT	PLANT AREA	LINE NO. OF MOD. ENERGY LINE IN CLOSE PROXIMITY*	SUBJECT TO FLUID SPRAY YES OR NO	EVALUATION	ACTION TO BE TAKEN BY PGANDE TO PROTECT EQUIPMENT
1. AUXILIARY FEEDWATER PUMP TURBINE	100' AUX. BLDG.	1-S2-221-18 C	YES	TURBINE-DRIVE ELECTRONIC SPEED CONTROL GOVERNOR IS SUBJECT TO DIRECT WATER SPRAY	INSTALL STEEL PLATE ABOVE THE DRIVE TURBINE SUCH THAT WATER CANNOT IMPINGE ON THE GOVERNOR MECHANISM
2. AUXILIARY FEEDWATER PUMP (TURBINE-DRIVEN)	100'/AUX. BLDG.	1-K-721-12 E	YES	WATER SPRAY ON PUMP CASING OR APPURTENANCES WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
3. DIESEL-GENERATOR EMERGENCY TRIP SWITCHES	85'/TURB. BLDG. (CORRIDOR OUTSIDE D-C ROOMS)	FIRE PROTECTION SPRINKLER SYSTEM	YES	WATER IN LEAKAGE COULD RESULT IN THE LOSS OF FUNCTION OF ONE DIESEL-GENERATOR	PROTECT THE EMERGENCY TRIP SWITCHES FROM WATER IN LEAKAGE BY INSTALLING 1 1/2 GA. SHEET METAL SPRAY BARRIERS
4. DIESEL-GENERATOR EMER. TRIP RELAY, EMER. TRIP LEVER, AND EMER. TRIP POSITION SWITCH	85'/TURB. BLDG.	INTEGRAL LUBE OIL PIPING	YES	FLUID SPRAY ON EMER. TRIP COMPONENTS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
5. DIESEL-GENERATOR	85'/TURB. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
6. DIESEL-GENERATOR STARTING AIR RECEIVERS	85'/TURB. BLDG.	INTEGRAL JACKET COOLING WATER PIPING	YES	WATER SPRAY ON THE STARTING AIR RECEIVERS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
7. DIESEL-GENERATOR FUEL OIL FILTERS	85'/TURB. BLDG.	INTEGRAL FUEL OIL PIPING	YES	FUEL SPRAY ON FUEL OIL FILTER WOULD NOT RESULT IN LOSS OF FUNCTION	NO ACTION REQUIRED
8. DIESEL-GENERATOR FUEL OIL PRIMING TANK	85'/TURB. BLDG.	INTEGRAL LUBE OIL PIPING	YES	LUBE OIL SPRAY ON THE PRIMING TANK WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
9. DIESEL-GENERATOR FUEL OIL STRAINERS	85'/TURB. BLDG.	INTEGRAL FUEL OIL PIPING	YES	FUEL SPRAY ON THE FUEL OIL STRAINERS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
10. DIESEL-GENERATORS FUEL OIL TRANSFER PPS. & MOTORS	85'/VAULT	FUEL OIL PIPING	YES	FUEL OIL SPRAY ON THE TRANSFER PUMPS OR MOTORS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED

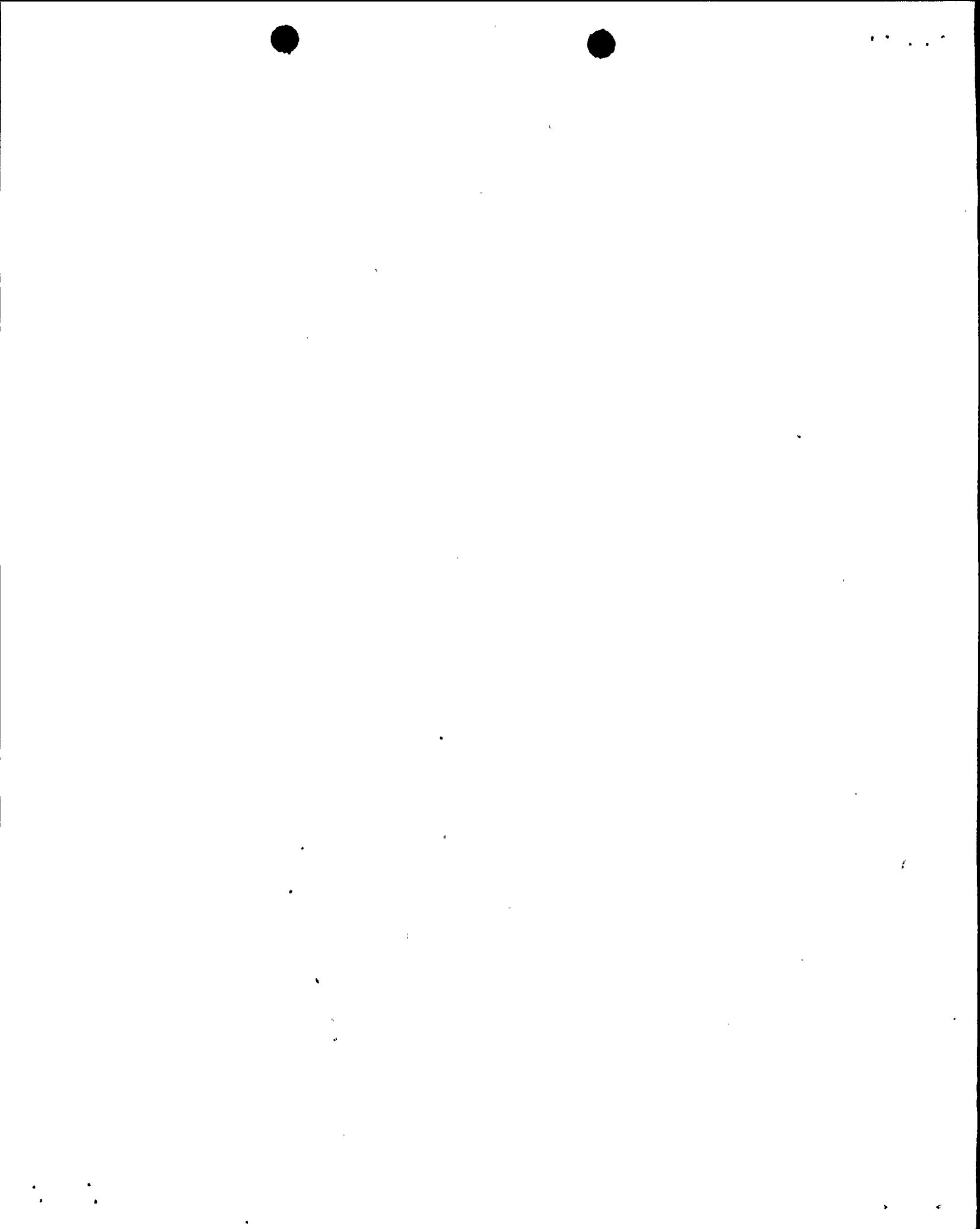
* WHILE OTHER MODERATE ENERGY LINES MAY BE IN THE VICINITY, THE LINE SHOWN IS THE MOST LIMITING IN TERMS OF THE POSTULATED QUANTITY OF FLUID RELEASED



	11.	CENTRIFUGAL CHARGING PUMPS	75'/AUX. BLDG.	INTEGRAL BEARING COOLING WATER PIPING FIRE PROTECTION SPRINKLER SYSTEM	YES	WATER IN LEAKAGE TO THE MOTOR POWER SUPPLY TERMINAL BOX MIGHT CAUSE A LOSS OF FUNCTION	INSTALL GASKETS ON THE MOTOR POWER SUPPLY TERMINAL BOX COVERS
R	12.	BORIC ACID TANKS	115'/AUX. BLDG.	1-S2-1569-2 E	YES	WATER SPRAY ONTO THE BORIC ACID STORAGE TANKS WOULD NOT CAUSE A LOSS OF FUNCTION	NO ACTION REQUIRED
R	13.	BORIC ACID TRANSFER PUMPS	100'/AUX. BLDG.	1-K-1595-3 E 1-S2-1564-2 E	YES	WATER SPRAY ONTO THE BORIC ACID TRANSFER PUMPS COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE PUMP AND THE POSTULATED PIPE BREAK LOCATIONS
	14.	BORIC ACID SYSTEM HEAT TRACING	100'/AUX. BLDG. 115'/AUX. BLDG.	MISCELLANEOUS	YES	HEAT TRACE SYSTEM TERMINAL BOX COVERS ARE SUPPLIED WITH GASKETS. IF SECURELY CLOSED, WATER SPRAY ON TO THE TERMINAL BOXES WOULD NOT RESULT IN A LOSS OF FUNCTION.	PRIOR TO PLANT OPERATION VERIFY THAT ALL HEAT TRACE SYSTEM TERMINAL BOX COVERS ARE SECURELY CLOSED
	15.	REGENERATIVE HEAT EXCHANGER	91'/CON'T.	NONE	NO	N.A.	NO ACTION REQUIRED
	16.	SEAL WATER INJECTION FILTER	100'/AUX. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
R	17.	BORIC ACID FILTER	100'/AUX. BLDG.	1-S2-1564-2 E	YES	WATER SPRAY ONTO THE BORIC ACID FILTER WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
	18.	RESIDUAL HEAT REMOVAL PUMPS	58'/AUX. BLDG.	1-K-128-1 1/2 C 1-K-131-1 1/2 C	YES	WATER SPRAY FROM THE SEAL WATER COOLING WATER LINES COULD PENETRATE THE MOTOR HOUSING. A LOSS OF FUNCTION MIGHT RESULT	PROTECT THE MOTOR HOUSINGS FROM WATER SPRAY BY INSTALLING GAURD HOSE OVER THE SEAL WATER COOLER LINES
	19.	RESIDUAL HEAT REMOVAL HEAT EXCHANGERS	58'/AUX. BLDG.	1-K-124-12 C	YES	WATER SPRAY ONTO THE RESIDUAL HEAT REMOVAL HEAT EXCHANGERS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
	20.	COMPONENT COOLING WATER PUMPS	73'/AUX. BLDG.	1-K-2994-20 C	YES	WATER SPRAY COULD PENETRATE THE MOTOR POWER SUPPLY TERMINAL BOX. THIS MIGHT CAUSE A LOSS OF FUNCTION.	INSTALL GASKETS ON THE MOTOR POWER SUPPLY TERMINAL BOX COVERS
	21.	COMPONENT COOLING WATER HEAT EXCHANGERS	85'/TURB. BLDG.	1-K-95-30 C 1-K-101-30 C	YES	WATER SPRAY ONTO THE COMPONENT COOLING WATER HEAT EXCHANGERS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED



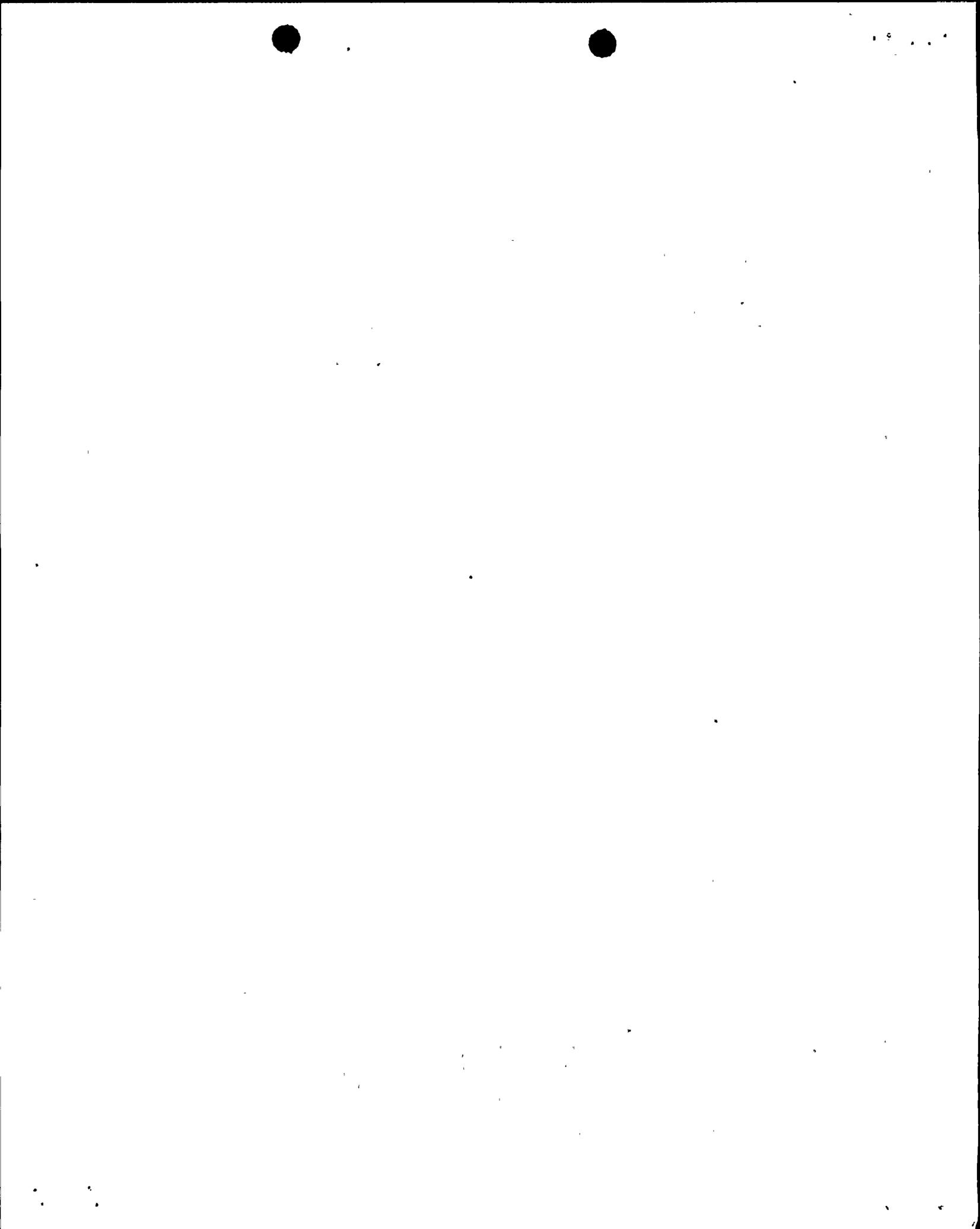
R	22.	AUXILIARY SALT WATER PUMPS	-2'/INTK. BLDG.	1-G1-680-24 C	YES (FLOODING)	THE POSTULATED BREAK COULD FLOOD THE WATER TIGHT PUMP ROOM. THIS MIGHT RESULT IN THE LOSS OF FUNCTION OF ONE AUX. SALT WATER PUMP.	VERIFY THERE IS AN ADEQUATE DRAINAGE PATH FROM EACH AUX. SALTWATER PUMP ROOM
	23.	MOTOR-DRIVEN AUXILIARY FEEDWATER PUMP	100'/AUX. BLDG.	1-52-221-18 C	YES	WATER SPRAY ONTO THE AUX. FEEDWATER PUMP CASINGS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
	24.	AUX. FEEDWATER PUMP MOTOR	100'/AUX. BLDG.	1-52-221-18 C	YES	WATER SPRAY ONTO THE AUX. FEEDWATER PUMP MOTORS WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
	25.	STM. GEN. 1-1 AUX. FW SUPPLY VALVE LCV-106	115'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
	26.	STM. GEN. 1-2 AUX. FW SUPPLY VALVE LCV-107	115'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
R	27.	STM. GEN. 1-3 AUX. FW SUPPLY VALVE LCV-108	115'/AUX. BLDG.	1-K-4072-3 E	YES	WATER SPRAY ONTO VALVE LCV-108 COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE VALVE ACTUATOR AND THE POSTULATED PIPE BREAK LOCATIONS
R	28.	STM. GEN. 1-4 AUX. FW SUPPLY VALVE LCV-109	115'/AUX. BLDG.	1-K-4072-3 E	YES	WATER SPRAY ONTO VALVE LCV-109 COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE VALVE ACTUATOR AND THE POSTULATED PIPE BREAK LOCATIONS
	29.	STM. GEN. 1-1 AUX. FW SUPPLY VALVE LCV-110	115'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
	30.	STM. GEN. 1-2 AUX. FW SUPPLY VALVE LCV-111	115'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
R	31.	STM. GEN. 1-3 AUX. FW SUPPLY VALVE LCV-113	115'/AUX. BLDG.	1-K-4072-3 E	YES	WATER SPRAY ONTO VALVE LCV-113 COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE VALVE ACTUATOR AND THE POSTULATED PIPE BREAK LOCATIONS
R	32.	STM. GEN. 1-4 AUX. FW SUPPLY VALVE LCV-115	115'/AUX. BLDG.	1-K-4072-3 E	YES	WATER SPRAY ONTO VALVE LCV-115 COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE VALVE ACTUATOR AND THE POSTULATED PIPE BREAK LOCATIONS
	33.	MAIN STM. TO TURBINE DRIVEN AUX. FW PUMP FCV-95	115'/AUX. BLDG.	1-K2-319-12 B	YES	WATER SPRAY ONTO VALVE FCV-95 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED



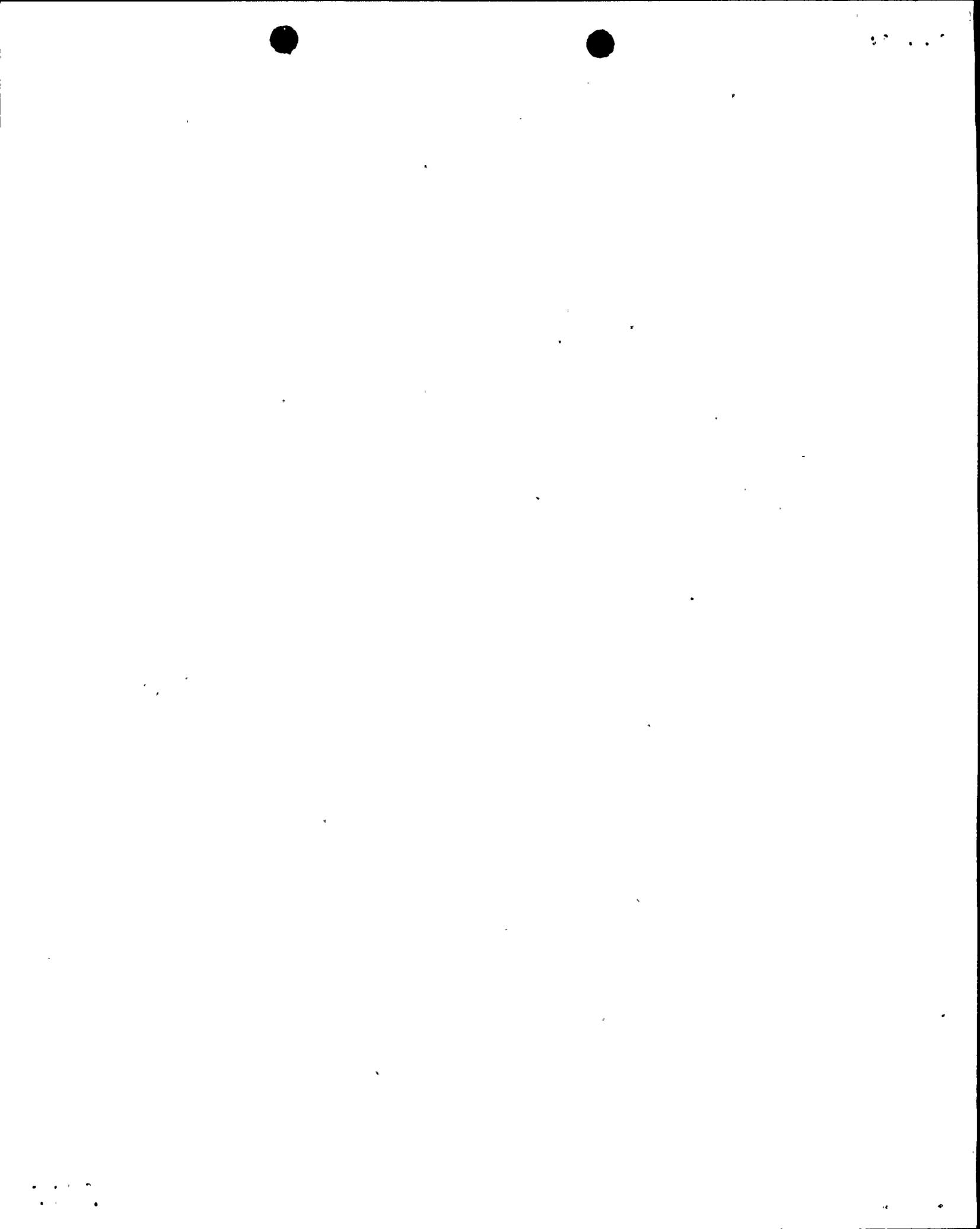
34.	LOOP 1 STEAM TO AFW TURBINE FCV-37	120'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
35.	LOOP 2 STEAM TO AFW TURBINE FCV-38	115'/AUX. BLDG.	FIRE PROTECTION SYSTEM PIPING	YES	WATER SPRAY ONTO VALVE FCV-38 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
36.	AUX. FW PUMP 1-1 RAW WATER SUPPLY FCV-436	100'/AUX. BLDG.	1-K-1862-8 E	YES	WATER SPRAY ONTO VALVE FCV-436 COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE VALVE ACTUATOR AND THE POSTU- LATED PIPE BREAK LOCATIONS
37.	AUX. FW PUMP 1-2 RAW WATER SUPPLY FCV-437	100'/AUX. BLDG.	1-K-1862-8 E	YES	WATER SPRAY ONTO VALVE FCV-437 COULD RESULT IN A LOSS OF FUNCTION	INSTALL A BARRIER BETWEEN THE VALVE ACTUATOR AND THE POSTU- LATED PIPE BREAK LOCATIONS
38.	EMERGENCY BORATE VALVE 8104	100'/AUX. BLDG.	1-S2-1458-4 B	YES	WATER SPRAY ONTO VALVE 8104 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
39.	BORIC ACID BLENDER INLET VALVE FCV-110 A	100'/AUX. BLDG.	1-S2-1458-4 B	YES	WATER SPRAY ONTO VALVE FCV-110 A WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
40.	CHG. PUMPS DISCHARGE TO REGEN. HX. HCV-142	85'/AUX. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
41.	CHG. PUMPS DISCHARGE TO REGEN. HX. 8108	85'/AUX. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
42.	CHG. PUMPS DISCHARGE TO REGEN. HX. 8107	100'/AUX. BLDG.	FIRE PROTECTION SYSTEM PIPING	YES	WATER SPRAY ONTO VALVE 8107 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
43.	CHG. TO LOOP 4 COLD LEG 8146	91'/CONT. BLDG.	1-K2-315-12 B	YES	WATER SPRAY ONTO VALVE 8146 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
44.	CHG. TO LOOP 3 COLD LEG (ALT.) 8147	91'/CONT. BLDG.	1-K2-315-12 B	YES	WATER SPRAY ONTO VALVE 8147 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
45.	HCV-142 MANUAL BYPASS VALVE 8403	85'/AUX. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
46.	CHG. PUMPS DISCHARGE HDR. FCV-128	73'/AUX. BLDG.	1-S2-994-1 E	YES	WATER SPRAY ONTO VALVE FCV-128 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED

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47.	FCV-128 MANUAL BYPASS CHG. PP. 1 8387 B	73'/AUX. BLDG.	1-K-2354-2 C	YES	WATER SPRAY ONTO VALVE 8387 B WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
48.	FCV-128 MANUAL BYPASS CHG. PP. 2 8387 C	73'/AUX. BLDG.	1-K-2356-2 C	YES	WATER SPRAY ONTO VALVE 8387 C WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
49.	BORIC ACID BLENDER BYPASS 8471	100'/AUX. BLDG.	1-52-1458-4 B	YES	WATER SPRAY ONTO VALVE 8471 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
50.	VALVE 8145 MANUAL BYPASS	91'/CONT. BLDG.	1-K2-315-12 B	YES	WATER SPRAY ONTO THIS VALVE WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
51.	PRESSURIZER AUXILIARY SPRAY 8145	91'/CONT. BLDG.	1-K2-315-12 B	YES	WATER SPRAY ONTO VALVE 8145 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
52.	REFUELING WATER STG. TANK TO CHG. PP. SUCTION 8805 A AND 8805 B	85'/AUX. BLDG.	1-K-99-12 C	YES	WATER SPRAY ONTO VALVES 8805 A AND 8805 B WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
53.	HOT LEG RHR SUCTION VALVE 8701	117'/CONT. BLDG.	1-K2-314-12 B	YES	WATER SPRAY ONTO VALVE 8701 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
54.	HOT LEG RHR SUCTION VALVE 8702	117'/CONT. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
55.	RHR TO COLD LEGS 3 AND 4 HCV-637	100'/AUX. BLDG.	1-52-1988-8 C	YES	WATER SPRAY ONTO VALVE HCV-637 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
56.	RHR TO COLD LEGS 1 AND 2 HCV-638	100'/AUX. BLDG.	1-52-224-8 C	YES	WATER SPRAY ONTO VALVE HCV-638 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
57.	RHR HEAT EXCHANGER TO COLD LEG 1 AND 2 8809 A	100'/AUX. BLDG.	1-K2-3007-10 B	YES	WATER SPRAY ONTO VALVE 8809 A WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
58.	RHR HEAT EXCHANGER TO COLD LEG 3 AND 4 8809 B	100'/AUX. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
59.	PRESSURIZER SAFETY VALVES 8010 A, 8010 B, AND 8010 C	180'/CONT. BLDG.	NONE	NO	N.A.	NO ACTION REQUIRED
60.	CCW OUT OF CCW HK. NO. 1 AND HK. NO. 2 FCV-430 FCV-431	85'/TURB. BLDG.	FIRE PROTECTION SPRINKLER SYSTEM	YES	WATER SPRAY ONTO VALVES FCV-430 AND FCV-431 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED



61.	CCW SUPPLY TO HDR. "C" FCV-355	85'/TURB. BLDG.	FIRE PROTECTION SPRINKLER SYSTEM	YES	WATER SPRAY ONTO VALVE FCV-355 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
62.	RHR HK. 1-1 AND 1-2 OUTLET FCV-364 FCV-365	85'/AUX. BLDG.	1-K-127-12 C	YES	WATER SPRAY ONTO VALVES FCV-364 AND FCV-365 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
63.	STM. GEN. 1-1 AND 1-2 10% ATM. STM. DUMP FCV-19 FCV-20	140'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
64.	STM. GEN. 1-3 AND 1-4 10% ATM. STM. DUMP FCV-21 FCV-22	140'/AUX. BLDG.	1-K-121-6 C	YES	WATER SPRAY ONTO VALVES FCV-21 AND FCV-22 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
65.	MAIN STM. SAFETY VALVES, LEAD 1 RV-3 RV-4 RV-5 RV-6 RV-222	140'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
66.	MAIN STM. SAFETY VALVES, LEAD 2 RV-7 RV-8 RV-9 RV-10 RV-223	140'/PIPEWAY	NONE	NO	N.A.	NO ACTION REQUIRED
67.	MAIN STM. SAFETY VALVES, LEAD 3 RV-11 RV-12 RV-13 RV-14 RV-224	140'/AUX. BLDG.	1-K-121-6 C	YES	WATER SPRAY ONTO THESE SAFETY VALVES WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
68.	MAIN STM. SAFETY VALVES, LEAD 4 RV-58 RV-59 RV-60 RV-61 RV-225	140'/AUX. BLDG.	1-K-121-6 C	YES	WATER SPRAY ONTO THESE SAFETY VALVES WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
69.	MAIN STM. ISOLATION VALVE FCV-41	115'/AUX. BLDG.	FIRE PROTECTION SPRINKLER SYSTEM	YES	WATER SPRAY ONTO FCV-91 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
70.	MAIN STM. ISOLATION VALVE FCV-42	115'/AUX. BLDG.	FIRE PROTECTION SPRINKLER SYSTEM	YES	WATER SPRAY ONTO FCV-42 WOULD NOT RESULT IN A LOSS OF FUNCTION	NO ACTION REQUIRED
71.	MAIN STM. ISOLATION VALVE FCV-43	115'/PIPEWAY		NO	N.A.	NO ACTION REQUIRED
72.	MAIN STM. ISOLATION VALVE FCV-44	115'/PIPE		NO	N.A.	NO ACTION REQUIRED



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73. AUX. S.W. TO CCW HK. 1-1 85'/TURB. BLDG. 1-2-K-998-12 E
AND 1-2 FCV-602 FCV-603

YES
(FLOODING)

THESE VALVES ARE LOCATED BELOW THE
CCW HK'S IN CONCRETE PITS. THE
POSTULATED BREAK WOULD CAUSE
FLOODING OF THESE PITS AND
IMMERSION OF THE VALVES. THIS
SITUATION COULD CAUSE A LOSS OF
FUNCTION.

CONSTRUCT A STEEL PLATE ENCLOSURE TO SEPARATE THE MODERATE
ENERGY LINES FROM THE VALVES



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RESULTS OF MODERATE-ENERGY LINE BREAK REVIEW FOR
INSTRUMENTS REQUIRED FOR HOT SHUTDOWN AND/OR COLD SHUTDOWN

<u>Instrument</u>	<u>Plant Area</u>	<u>Panel Mounted Yes or No</u>	<u>Panel Subject to Fluid Spray Yes or No</u>	<u>Evaluation</u>	<u>Action to be taken by PG&E to protect equipment</u>
1. Stm. Gen. 1-1 Level, LT-517	91'/Cont. Bldg.	Yes	Yes	Water inleakage may cause a loss of function.	Seal all electrical and instrument tubing penetra- tions at top of panel.
2. Stm. Gen. 1-1 Level, LT-518	" "	"	"	" "	" "
3. Stm. Gen. 1-1 Level, LT-519	" "	"	"	" "	" "
4. Stm. Gen. 1-2 Level, LT-527	" "	"	"	" "	" "
5. Stm. Gen. 1-2 Level, LT-528	" "	"	"	" "	" "
6. Stm. Gen. 1-2 Level, LT-529	" "	"	"	" "	" "
7. Stm. Gen. 1-3 Level, LT-537	" "	"	"	" "	" "
8. Stm. Gen. 1-3 Level, LT-538	" "	"	"	" "	" "
9. Stm. Gen. 1-3 Level, LT-539	" "	"	"	" "	" "
10. Stm. Gen. 1-4 Level, LT-547	" "	"	"	" "	" "
11. Stm. Gen. 1-4 Level, LT-548	" "	"	"	" "	" "
12. Stm. Gen. 1-4 Level, LT-549	" "	"	"	" "	" "
13. Pressurizer Level, LT-459	" "	"	"	" "	" "
14. Pressurizer Level, LT-460	" "	"	"	" "	" "
15. Pressurizer Level, LT-461	" "	"	"	" "	" "
16. Boric Acid Tank 1-1 Level LT-102	100'/Aux. Bldg.	"	"	" "	" "
17. Boric Acid Tank 1-2 Level LT-106	" "	"	"	" "	" "
18. Primary Coolant System Temperature	" "	"	"	" "	" "

