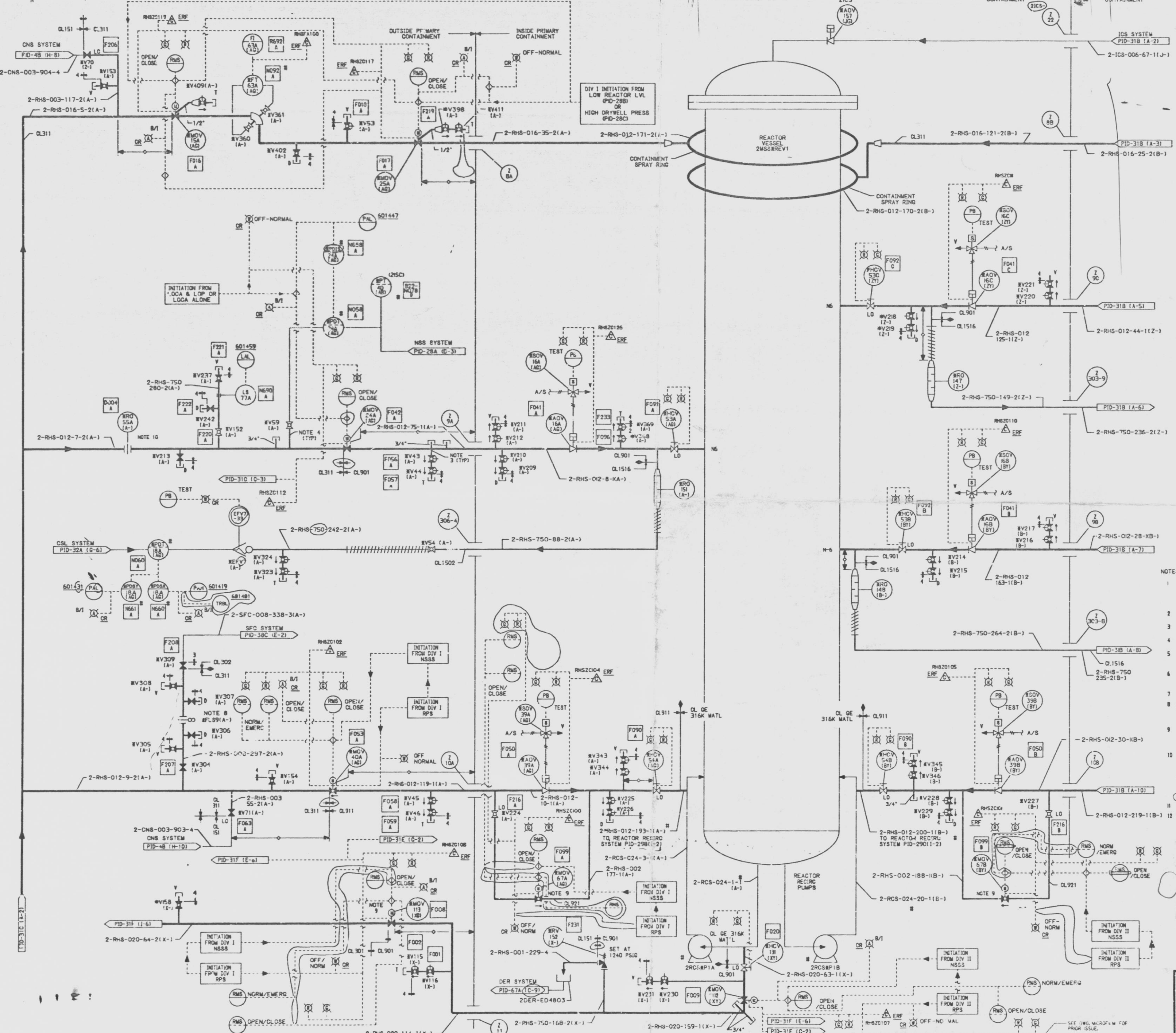


12177-PID-31A-B



MARK NUMBER	VALVE DESCRIPTION	SIZE	NO. OF VALVES
MOV15A	VGW90-D-2PC	16"	1
MOV25A	VGW90-F-1Z0	12"	1
MOV25B	VGW90-C-2PC0	16"	1
MOV40A	VGW90-D-1Z0	12"	1
MOV7A,B	VW150-F-1R0	2"	2
MOV12	VGW90-F-1M0	20"	1
MOV13	VGW90-C-1Z0	20"	1
MOV14,B,C	VGW90-E-1M0	12"	3
ADV5A,B	VW90-E-1R0	12"	2
MOV3A,B,C	VGW90-C-1M0	12"	3
MOV4A,B	VGW90-C-1R0	12"	2
MOV31	VGW90-C-1M0	20"	1
V41,44,45,46,53	VSS150-B-2	3/4"	31
V15,116,209,210			
V11,212,214,215			
V26,217,28,29			
V20,221,225,226			
V228,229,230,23			
V343,344,345,346			
V368,369			
V54	VOS150-W-2	3/4"	1
V70,71	VGW90-D-2K	3"	2
V53,237	VOS150-F-2	3/4"	2
V152,153,154,305	VOS060-D-2	3/4"	9
V308,360,361,402	V158		
V158			
V23,242,306,307	VSS060-C-2	3/4"	4
V24,227	VOS150-F-1	2"	2
V304	VGW90-D-K	8"	1
V309	VGW90-K-2KE	8"	1
V373,374	V2150-A-2	3/4"	2
V338,409,48	VSS150-B-2	3/4"	3

SI APERTURE CARD

- NOTES
- 1 ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2RHS" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.
 - 2 Q.E. IDENTIFICATION NUMBER: ARC SHOWN IN SQUARES (TO BE PREFIXED BY E12 UNLESS OTHERWISE PREFIXED).
 - 3 ALL INSTRUMENTS, TEST, DRAIN, & VENT CONNECTIONS SHALL BE 3/4" EXCEPT AS NOTED.
 - 4 LINES 1" & SMALLER WHICH ARE PART OF THE REACTOR COOLANT PRESS. BOUNDARY SHALL BE SAFETY CLASS 2.
 - 5 VALVE POSITIONS ARE SHOWN FOR NORMAL OPERATION OF THE PLANT. THE SYSTEM IS ON STANDBY, READY TO START RHS LFCI MODE OF OPERATION.
 - 6 ALL INSTRUMENT LINES INSIDE THE DRYWELL ARE CLASS 1516 AND OUTSIDE THE DRYWELL ARE CLASS 1502 UNLESS OTHERWISE NOTED.
 - 7 -> INDICATES DISSIMILAR METAL WELD.
 - 8 2RHS+FLS9 IS A "FIGURE 8" TYPE SPECTACLE FLANGE. THE BLANK INSERT PORTION OF THE FIGURE 8 SHALL BE REMOVED AND DISCARDED WHILE THE FULL BORE INSERT SHALL BE PERMANENTLY INSTALLED.
 - 9 2RHSMOV67A,B AND 2RHSMOV113 SHALL BE DE-ENERGIZED DURING NORMAL PLANT OPERATION TO PRECLUDE THE POSSIBILITY OF SPURIOUS ACTIVATION DURING A CONTROL ROOM FIRE (APPENDIX R1).
 - 10 DURING PERIODIC SURVEILLANCE TESTING (MODE E OF DE PROCESS DATA SHEET), THE ORIFICE PLATES FOR 2RHSROSSA MUST BE REPLACED WITH A TEMPORARY ORIFICE PLATE (EITHER 2RHS-ROSSA OR B) TO PREVENT PLUMP RUNOUT. TEMPORARY PLATES 2RHS-ROSSA AND B ARE IDENTICAL. EITHER OF THESE MAY BE INSERTED INTO 2RHSROSSA AS REQUIRED FOR TESTING PURPOSES. 2RHSROSSA MUST BE REINSTALLED UPON COMPLETION OF TESTING.
 - 11 -> INDICATES MINIMUM DISTANCE FOR INSTALLATION.
 - 12 # INDICATES EQUIPMENT SUPPLIED BY GE-NED.

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NUCLEAR SAFETY RELATED
QA CAT I, II

PIPING & INSTRUMENTATION DIAGRAM
RESIDUAL HEAT REMOVAL
SYSTEM

NINE MILE POINT NUCLEAR STATION UNIT 2
NIAGARA MOHAWK POWER CORPORATION
STONE & WEBSTER ENGINEERING CORPORATION
CHERRY HILL, N.J.

INCORPORATES ECN NO.	DATE	DESCRIPTION	BY	CHKD	APPROVED
1	10/15/88	ISSUE	R. LAUS	E. J. DURAN	
2	11/15/88	REVISION	R. LAUS	E. J. DURAN	

07-01

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