



NOTES: (CONTINUED)

- 16. THE PIPING (4" SW-567) AND SUPPORTS (SW-567-H1 & SW-567-H2) ON REAR SUPPLY PIPING WHERE THE VACUUM BREAKERS ARE IN ARE SC 2 FOR STRUCTURAL INTEGRITY. (SEE EDCR 95-409)
- 17. THE SUPPORTS FOR 2" SW-568 ARE NNS PER EDCR 95-409
- 18. PIPING AND VALVES ON THE FIRE WATER SIDE OF LINES SW 44 & 49 (FROM SW-8 TO LINES 11-1 AND 11-2) AND THE FIRE WATER SIDE OF 1 1/2" SW-570 (FROM VIO-28 TO THE FIRE WATER CROSSLINE) AND TEST LOOP 10-17-18 HAVE A DESIGN PRESSURE OF 175 PSIG.
- 19. SPECTACLE FLANGE/BLIND FOR SERVICE WATER DISCHARGE HEADER FROM RECCW HX (SPF-70-1). A SECONDARY CONTAINMENT PENETRATION WORK REQUEST (OP2116) IS NEEDED TO ROTATE THIS SPECTACLE.
- 20. REPLACE RD-70-4/5 WITH SCH 510704 IF PIPING SPOOLS 8" SW-12A/B ARE CLEANED AND COATED, OR REPLACED WITH STAINLESS STEEL.
- 21. PRESSURE TAPS AVAILABLE FOR FLOW SETTING.

LEGEND:

- VALVE NORMALLY CLOSED
- BY OTHER
- SITE GLASS

NOTES:

- 1. INSTRUMENT AND CONTROL VALVE NUMBERS TO BE PREFIXED BY 104. ACTUAL TAGGING TO BE TCV-104-21. ALL LOCAL GRAU SAMPLERS WILL GO TO NLAHLS 1 LOOK URAN.
- 2. UNLESS OTHERWISE NOTED ALL VALVES AND SPECIALTIES ARE PREFIXED BY SYSTEM NO. 703. FOR EXAMPLE VALVE 152 ACTUAL DESIGNATION IS V70 152.
- 3. SOLENOID VALVE WILL OPEN LOW LEVEL AND AUTOMATIC REFILL ONLY WHEN DIESEL IS RUNNING.
- 4. CHECK RRU/S, TRU/S FOR VENTS, DRAINS AND PRESSURE CONNECTIONS.
- 5. FOR CLEANOUT CONNECTIONS SEE PLANS AND SECTIONS.
- 6. SPOOL PIECES ARE IN THE FOLLOWING LOCATIONS PER PAR 80-49: 1 IN 11L 20" SW-9, 3 IN 16" SW-21, 2 IN SW-31A AND 8 IN HX COOLER INLET AND OUTLET PIPING - SEE G-191192 AND ISO'S 5820-FSI-8A, 7 FOR DETAILS.
- 7. SACRIFICIAL ANODES AND 15% MATERIALS HAVE BEEN INSTALLED IN CLEANOUT PORTS, SEE PAR 80-48 AND G-191192, 5820-FSI-8A, 80, 7 FOR DETAILS.
- 8. PER EDCR 83-21, EDC-5, THE OUTLET LINES TO RRU-5, 6, 7, 8, 9, 17A & B AND UPS ARE DESIGNED FOR 32F TO 145F HAMP AND 125 PSIG PRESSURE. THE INLET LINES TO RRU-5, 6, 7, 8, 9, 17A & B AND UPS ARE DESIGNED FOR 32F TO 95F AND 125 PSIG.
- 9. FOR USE OF SPOOLED FLANGE, BUSHING AND PLUG SEE EDCR 92-401, FIGURE 1 AND J.D. FILE 95-022.
- 10. PIPE CAPS ASSOCIATED WITH RHR SW VALVES 214A/B, 217A/B, 218A/B, 219A/B, 220A/B & 231A/B ARE NOT REQUIRED BY THE SAFETY CLASS MANUAL, BUT ARE USED AS GOOD PRACTICE. THEIR PRESENCE HAS NO EFFECT ON THE CAPABILITY OF THE SYSTEM TO PERFORM ITS SAFETY FUNCTION.
- 11. STAINLESS STEEL MATERIAL IS SA312, TP316L OR APPROVED EQUAL.
- 12. THE DESIGN PRESSURE TRANSITION ON LINE SW-7A/7B IS AT THE DISCHARGE OF VALVE VIO-192A/D.
- 13. INDICATES BOUNDARIES OF VITAL (V) AND NON-VITAL (N) WATER SUPPRESSION SYSTEM. ALTHOUGH THE LBNL SYSTEM IS NNS, VITAL PORTIONS ARE TREATED AS OOA.
- 14. THE ANTI-VIBRATION STRUT W/SHIMS SHALL BE RE-INSTALLED IN THE SAME LOCATION IF IT IS REMOVED FOR MAINTENANCE.
- 15. VALVE SW 200 CAN BE USED AS A 50 GPM WATER SOURCE TO FACILITATE CONDENSER TUBE CLEANING DURING COLD SHUTDOWN CONDITIONS (VYS 26/98 & FSAR CHANGE NO.96-016). INSTALLATION TO BE CONTROLLED BY APO201.

PIPING LINE LIST						
LINE NO.	LINE SIZE	PIPE	DESIGN	EBASCO SPEC. PART NO.		
SW-1A-D	14", 18", 20", 24"	STD.	CS-1	125	32"	1.6
SW-2A-F	14", 18", 20"				32"	
SW-3	20"				32"	
SW-4A & B	12"			125/175	32"	
SW-5	8", 6"			125	32"	
SW-5A E	3", 4"				32"	
SW-6A-D	10", 12"	CS-2	350	32"	85"	
SW-7A & B	6, 12"	CS-1	125	350	150	
SW-8	24"			125	32"	
SW-9	20"				32"	
SW-9A-D	10"				150	
SW-10	8", 18"				32"	
SW-11A & B	10"				150	
SW-12	8", 18", 20"					
SW-12A & B	6"					
SW-12C & D	4", 6"	RD				M.M. 99-017
SW-13	20"	STD.				1.6
SW-14	14"					
SW-15A & B	12"				32"	
SW-16A-C	8", 10", 12"	SS-1			150	
SW-17	24"	CS-1			32"	
SW-18A-D	8"	CS-1	125	350	32"	
SW-19	3"	CS-2	350	32"	150"	
SW-20A C	8"	CS-1	125	32"	150"	
SW-21	8", 16"	CS-1			150	
SW-22	10", 4"					
SW-22A D	6"	SS-1				
SW-23	12"	CS-1				
SW-23A-D	6"	SS-1				
SW-24A & B	8", 10", 12"	CS-1				
SW-25	8"					
SW-26A & B	6"					
SW-27	4"	CS-1				
SW-28 & 28A	3"					
SW-29A & B	6"	CS-1				
SW-30A & B	8"					
SW-31A & B	8"					
SW-32	6"					
SW-33	8"					
SW-34	8"					
SW-35A & B	2 1/2"	TYPE K	COPPER		32"	
SW-36A & B	2 1/2"				32"	
SW-37A & B	3"	STD.	CS-1		150	
SW-38	4"					
SW-39A & B	2 1/2"					
SW	2" & 5M	RD				
SW-41A & B	4"	40	SS		150	PAR 81-19
SW-45A & B	2"	TYPE K	COPPER		32"	
SW-45C	2"				32"	
SW-493	2 1/2"				32"	
SW-494	2 1/2"				32"	
SW-505	2"				32"	
SW-506	2"				32"	
SW-516	2"				32"	
SW-517	2"				32"	
SW-552 TO 561	2 1/2" & SW				150	PAR 81-19
SW-564	1"	80	CCS-3		32"	PAR 81-01
SW-565	1"	80	CCS-3		32"	PAR 81-01
SW-566A,B,C,D	2"	80	SS-1	125	32"	1.6
SW-567	4"	STD.	CS-1	125	32"	1.6
SW-570	1 1/2"	80	CS-1	125	150"	1.8
SW-574	4"	40	SS-1	125	32"	1.6

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

- RESIDUAL HEAT REMOVAL SYSTEM AMRM-02
- STANDBY GAS TREATMENT SYSTEM AMRM-07
- SERVICE WATER SYSTEM AMRM-11
- REACTOR BUILDING CLOSED COOLING WATER SYSTEM AMRM-12
- EMERGENCY DIESEL GENERATOR SYSTEM AMRM-13
- HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS AMRM-19

THIS IS AN FSAR DRAWING

- REFERENCE DWG'S:
- G-191155 PIPING & INSTRUMENT SYMBOLS
 - G-191163 FLOW DIAG. FIRE PROTECTION SYS.
 - G-191165 FLOW DIAG. SAMPLING SYS.-S12
 - G-191166 FLOW DIAG. CIRC. WATER & MISC. SYS.
 - G-191192 TURBINE BUILDING SERVICE & COOLING WATER PIPING PLANS
 - G-191194 REACTOR BUILDING SERVICE & COOLING WATER PIPING PLANS
 - G-191196 FIRE WATER PIPING PLAN
 - G-191230 YARD PIPING PLAN SH.1
 - 5920-4143 EMERGENCY DIESEL GENERATOR AFTER COOLANT SYSTEM SCHEMATIC
 - 5920-4147 EMERGENCY DIESEL GENERATOR JACKET COOLANT SYSTEM SCHEMATIC
 - 5920-4150 EMERGENCY DIESEL GENERATOR LUBE OIL SYSTEM SCHEMATIC

DETAIL "A"

REV	DESCRIPTION	BY	CHKD.	APP'D.	
81	REVISED PER CR-191155-001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 024, 025, 026, 027, 028, 029, 030, 031, 032, 033, 034, 035, 036, 037, 038, 039, 040, 041, 042, 043, 044, 045, 046, 047, 048, 049, 050, 051, 052, 053, 054, 055, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071, 072, 073, 074, 075, 076, 077, 078, 079, 080, 081, 082, 083, 084, 085, 086, 087, 088, 089, 090, 091, 092, 093, 094, 095, 096, 097, 098, 099, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 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596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000				

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
1	11-05					
REVISIONS						
LRA-G-191159-SH-02-0						
CWP FILE						
LRA-G-191159-SH-02_85.DGN						
PASTER FILE						
G-191159-SH-02-CALS_85.CAL						