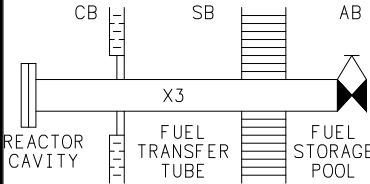
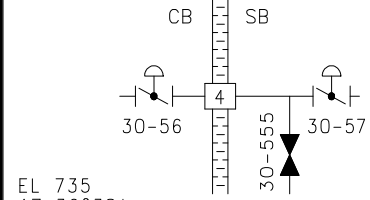
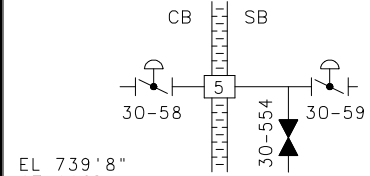
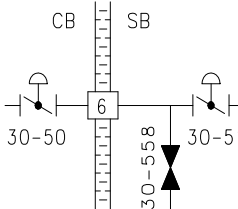
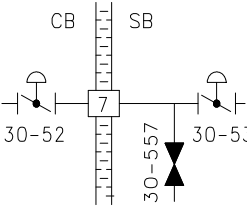
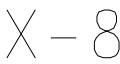


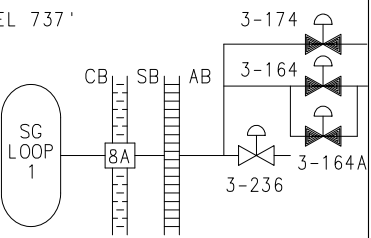
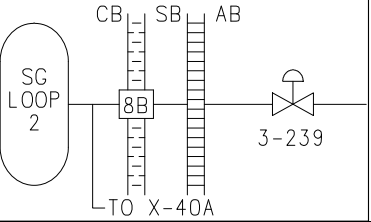
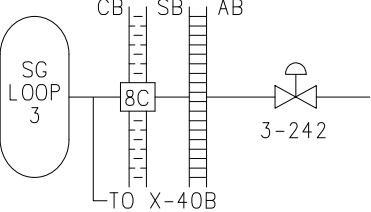
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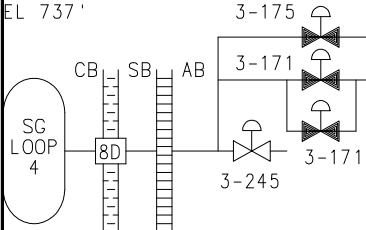
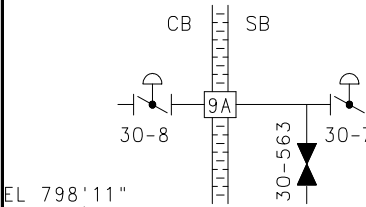
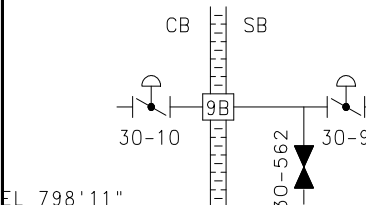
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																				
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	POST-ACCIDENT				
 <p>EL 711'3" AZ 261°50'</p>	47W455-1 72-4333 -PS1 (CB & 1 CONTRACT #75320)	56	W	C	AB D	FUEL TRANSFER TUBE	AB	-	-	BL	M	LM	-	-	-	C	V	C	-	C	N	N	AB	N	MK62					
 <p>EL 735 AZ 36°30'</p>	47W866-1	56	A	C	AB CE	LOWER COMPARTMENT PURGE AIR EXHAUST (30)	CB SB	56 57	A B	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-005	3, 6, 14				
 <p>EL 739'8" AZ 116°</p>	47W866-1	56	A	C	AB CE	INST RM PURGE AIR EXHAUST (30)	CB SB	58 59	B A	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-005	3, 6, 14				

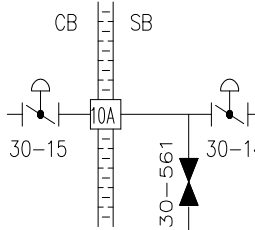
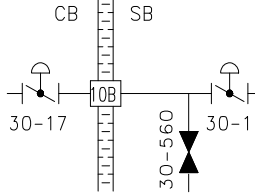
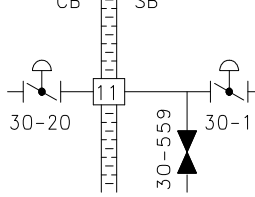
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

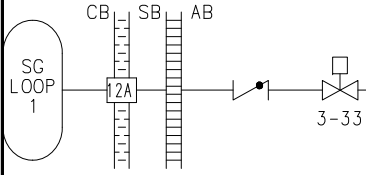
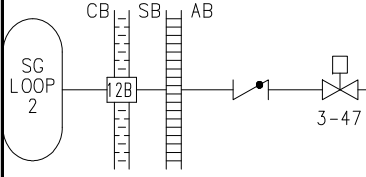
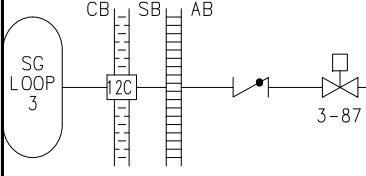
PENETRATION DATA										VALVE DATA																			
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	N	Y				
 <p>EL 749'3" AZ 293°</p>	47W866-1	56	A	C	AB CE	UPPER COMPARTMENT PURGE AIR EXHAUST (30)	CB SB	50 51	B A	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-005	3, 6, 14			
 <p>EL 751'4" AZ 249°30'</p>	47W866-1	56	A	C	AB CE	UPPER COMPARTMENT PURGE AIR EXHAUST (30)	CB SB	52 53	A B	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-005	3, 6, 14			
 <p>EL 790'0" AZ 266°</p>	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																										
PENETRATION DATA													VALVE DATA													
DETAILS	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
EL 737 ' 	47W803 -1,2	57	W	H	BC E	FEEDWATER BYPASS (3)	AB	236 174 164 164A	A,B B A A	GL GL GL A	AO AO AO AO	AT RM RM RM	LM LM LM LM	FW - - -	- - - -	O C C C	C C V C	C C V C	C C O C	C C C C	Y Y Y Y	N N N N	A A A A	N	MK112	22,23,25
EL 737 ' 	47W803 -1,2	57	W	H	BC E	FEEDWATER BYPASS (3)	AB	239	A,B	GL	AO	AT	LM	FW	-	O	C	C	C	C	Y	N	A	N	MK113	22,25
EL 737 ' 	47W803 -1,2	57	W	H	BC E	FEEDWATER BYPASS (3)	AB	242	A,B	GL	AO	AT	LM	FW	-	O	C	C	C	C	Y	N	A	N	MK114	22,25

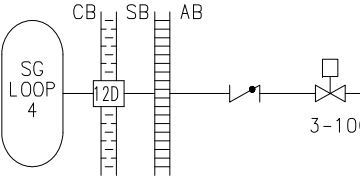
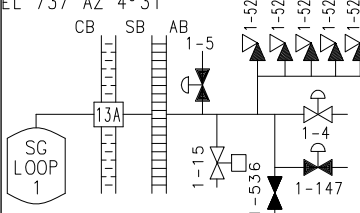
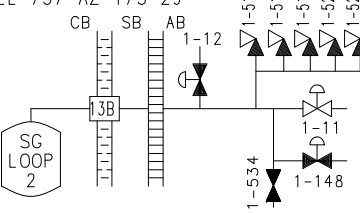
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS							NOTES
																					POS IND IN MCR	ESF	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION			
 <p>EL 737'</p>	47W803-1,2	57	W	H	BC E	FEEDWATER BYPASS (3)	AB	245 175 171 171A	A,B A B B	GL GL GL AO	AO AO AO RM	AT RM LM LM	LM LM LM LM	FW - - -	- - - -	O C C C	C C C C	C C C C	C C C C	Y Y Y Y	N N N N	A A A A	N	MK115	22, 23, 25			
 <p>EL 798'11" AZ 289°</p>	47W866-1	56	A	C	AB CE	UPPER COMPARTMENT PURGE AIR SUPPLY (30)	CB SB	8 7	B A	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-002	3,6,14		
 <p>EL 798'11" AZ 261°</p>	47W866-1	56	A	C	AB CE	UPPER COMPARTMENT PURGE AIR SUPPLY (30)	CB SB	10 9	A B	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-002	3,6,14		

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																					
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	N	Y	C	O				
 <p>EL 737 AZ 301°</p>	47W866-1	56	A	C	AB CE	LOWER COMPARTMENT PURGE AIR SUPPLY (30)	CB SB	15 14	B A	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-002	3,6,14					
 <p>EL 737 AZ 236°30'</p>	47W866-1	56	A	C	AB CE	LOWER COMPARTMENT PURGE AIR SUPPLY (30)	CB SB	17 16	A B	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	C C	C C	C C	C C	Y Y	N N	AC AC	N	F-002	3,6,14					
 <p>EL 728'6" AZ 57°</p>	47W866-1	56	A	C	AB CE	INST RM PURGE AIR SUPPLY (30)	CB SB	20 19	A B	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	F-002	3,6,14					

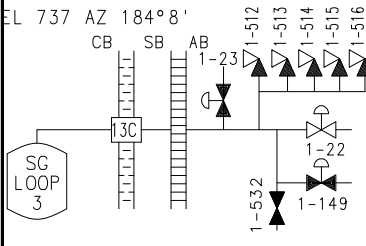
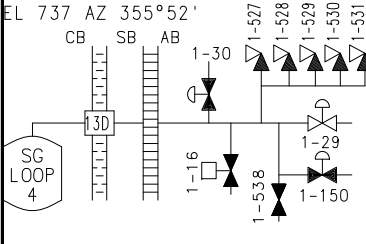
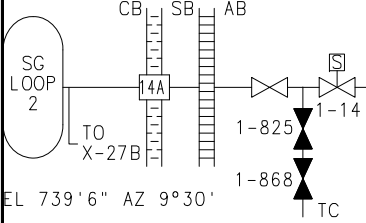
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																											
PENETRATION DATA														VALVE DATA													
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS							NOTES
																				POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION				
 <p>EL 731 AZ 7°40'</p>	47W803-1	57	W	H	BC E	FEEDWATER (3)	AB	33	A	GA	MO	AT	LM	FW	-	O	C	C	AI	C	Y	N	A	N	MK70	22	
 <p>EL 731 AZ 172°20'</p>	47W803-1	57	W	H	BC E	FEEDWATER (3)	AB	47	B	GA	MO	AT	LM	FW	-	O	C	C	AI	C	Y	N	A	N	MK69	22	
 <p>EL 731 AZ 187°40'</p>	47W803-1	57	W	H	BC E	FEEDWATER (3)	AB	87	A	GA	MO	AT	LM	FW	-	O	C	C	AI	C	Y	N	A	N	MK68	22	

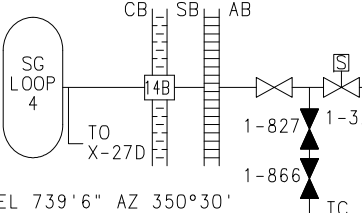
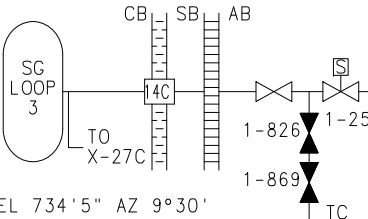
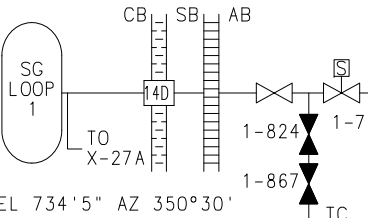
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																				
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS							ESF	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES	
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION						
 EL 731 AZ 352°20'	47W803-1	57	W	H	BC E	FEEDWATER (3)	AB	100	B	GA	MO	AT	LM	FW	—	O	C	C	AI	C	Y	N	A	N					MK67	22
 EL 737 AZ 4°31'	47W801-1 47W803-2	57	S	H	BC E	MAIN STEAM (1)	AB	4	A, B	GL	AO	AT	LM	MS	—	O	C	C	C	C	Y	N	A	N					MK66	22
							AB	5	A, B	RV	AO	AT	RM	—	—	C	C	C	C	C	Y	N	A							
							AB	15	A	GA	MO	AT	RM	—	—	O	C	V	C	AT	C	N	N	A						
							AB	147	A	GA	AO	AT	RM	MS	—	C	V	C	C	C	N	N	A							
							AB	522	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	523	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	524	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	525	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	526	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	536	—	GL	M	LM	—	—	—	C	V	C	—	C	N	N	A							
 EL 737 AZ 175°29'	47W801-1	57	S	H	BC E	MAIN STEAM (1)	AB	11	A, B	GL	AO	AT	LM	MS	—	O	C	C	C	C	Y	N	A	N					MK65	22
							AB	12	A, B	RV	AO	AT	RM	—	—	C	C	C	C	C	Y	N	A							
							AB	148	B	GA	AO	AT	RM	MS	—	C	V	C	C	C	Y	N	A							
							AB	517	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	518	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	519	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	520	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
							AB	521	—	RV	—	SA	—	—	—	C	C	C	—	C	N	N	A							
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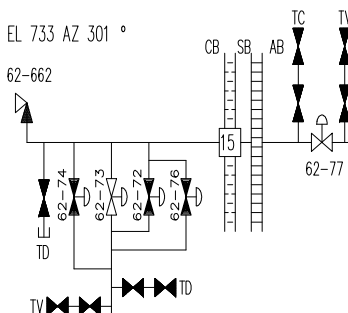
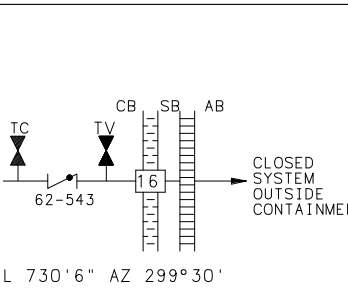
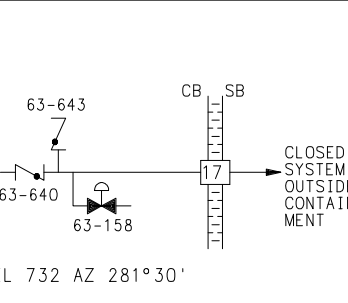


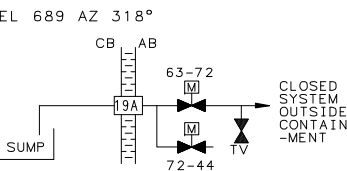
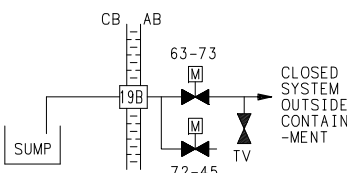
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

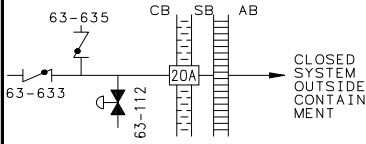
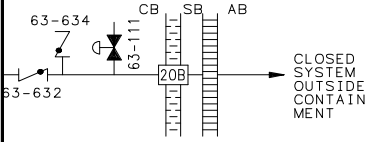
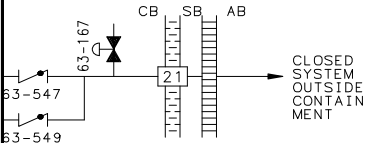
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DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION				
	47W801-1	57	S	H	BC E	MAIN STEAM (1)	AB	22	A, B	GL	AO	AT	LM	MS	-	O	C	C	C	C	C	Y	N	A	N	MK64	22		
							AB	23	A, B	RV	AO	AT	RM	-	-	C	C	C	C	C	C	Y	N	A					
							AB	149	A	GA	AO	AT	RM	MS	-	C	V	C	C	C	C	Y	N	A					
							AB	512	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	513	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	514	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	515	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	516	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	532	-	GL	M	LM	-	-	-	C	V	C	-	C	N	N	A						
	47W801-1 47W803-2	57	S	H	BC E	MAIN STEAM (1)	AB	29	A, B	GL	AO	AT	LM	MS	-	O	C	C	C	C	C	Y	N	A	N	MK63	22		
							AB	16	A	GA	MO	AT	RM	-	-	C	C	V	AI	C	Y	N	A						
							AB	30	A, B	RV	AO	AT	RM	-	-	C	-	C	C	C	C	Y	N	A					
							AB	150	B	GL	AO	AT	RM	MS	-	C	V	C	C	C	C	Y	N	A					
							AB	527	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	528	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	529	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	530	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	531	-	RV	-	SA	-	-	-	C	C	C	-	C	N	N	A						
							AB	538	-	GL	M	LM	-	-	-	C	V	C	-	C	N	N	A						
	47W801-2	57	W	H	BE	STEAM GENERATOR BLOWDOWN (1)	AB	14	A	GL	SO	AT	RM	PA	15.0	O	C	C	C	C	Y	N	A	N	AS14A	22			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS				ESF	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																				Y	N	A	N					
 <p>EL 739'6" AZ 350°30'</p>	47W801-2	57	W	H	BE	STEAM GENERATOR BLOWDOWN (1)	AB	32	A	GL	SO	AT	RM	PA	15.0	O	C	C	C	C	Y	N	A	N	AS14B	22		
 <p>EL 734'5" AZ 9°30'</p>	47W801-2	57	W	H	BE	STEAM GENERATOR BLOWDOWN (1)	AB	25	B	GL	SO	AT	RM	PA	15.0	O	C	C	C	C	Y	N	A	N	AS14C	22		
 <p>EL 734'5" AZ 350°30'</p>	47W801-2	57	W	H	BE	STEAM GENERATOR BLOWDOWN (1)	AB	7	B	GL	SO	AT	RM	PA	15.0	O	C	C	C	C	Y	N	A	N	AS14D	22		

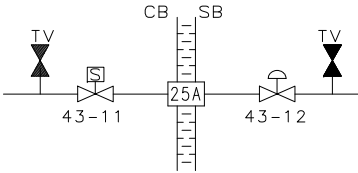
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																							
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																				ILRT	POS IND IN MCR	ESF	Y	N	AC	Y	N	AC	Y				
 <p>EL 733 AZ 301 °</p> <p>62-662</p> <p>62-74</p> <p>62-73</p> <p>62-72</p> <p>62-76</p> <p>62-77</p> <p>TC</p> <p>TV</p> <p>CB</p> <p>SB</p> <p>AB</p> <p>TD</p>	47W809-1	55	W	H	BD	CVCS LETDOWN (62)	CB	72	A	GL	AO	AT	RM	PA	10.0	C	V	C	C	C	Y	N	AC	N	AS15	4							
 <p>EL 730'6" AZ 299°30'</p> <p>62-543</p> <p>CB</p> <p>SB</p> <p>AB</p> <p>TC</p> <p>TV</p> <p>CLOSED SYSTEM OUTSIDE CONTAINMENT</p>	47W809-1	55	W	C	AD	CVCS NORMAL CHARGING (62)	CB	543	-	CK	-	SA	RM	-	-	O	V	C	-	-	N	N	A	N	MK19								
 <p>EL 732 AZ 281°30'</p> <p>63-643</p> <p>63-640</p> <p>63-158</p> <p>CB</p> <p>SB</p> <p>CLOSED SYSTEM OUTSIDE CONTAINMENT</p>	47W811-1 47W810-1	55	W	C	BD	RHR HOT LEG INJECTION (63)	CB	640	-	CK	-	SA	-	-	-	C	V	C	-	-	N	Y	A	E	MK27								
							CB	643	-	CK	-	SA	-	-	-	C	V	C	-	-	N	Y	A										
							CB	158	-	GL	AO	RM	-	RM	-	V	V	C	C	C	Y	Y	A										

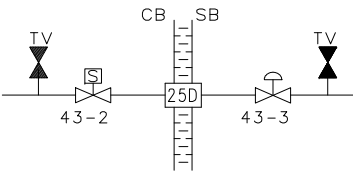
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PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																					POS IND IN MCR	ESF	ESF	ESF				
X-18  EL 740 AZ 145	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
	47W811-1	-	W	H	D	SUMP SUCTION TO RHR PUMP 1A-A (63,72)	AB	72	A	GA	MO	RM	LM	-	-	C	C	V	AI	C	Y	Y	A	E	-			
	47W812-1	-	-	-	-	-	AB	44	A	GA	MO	RM	LM	-	-	C	C	V	AI	C	Y	Y	A		-			
	47W811-1	-	W	H	D	SUMP SUCTION TO RHR PUMP 1B-B (63,72)	AB	73	B	GA	MO	RM	LM	-	-	C	C	V	AI	C	Y	Y	A	E	-			
	47W812-1	-	-	-	-	-	AB	45	B	GA	MO	RM	LM	-	-	C	C	V	AI	C	Y	Y	A		-			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																											
PENETRATION DATA														VALVE DATA													
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																				ILRT	POS IND IN MCR	ESF	APP J TEST				
 <p>EL 732 AZ 291°-30"</p>	47W811-1	55	W	C	B D	RHR PUMP DISCHARGE TR B (63)	CB CB CB	112 635 633	- - -	GL CK CK	AO - -	RM SA SA	- - -	- - -	V C C	V C C	C V V	C - -	C - -	Y N N	N Y Y	A A A	E	AS20A			
 <p>EL 732 AZ 287°30'</p>	47W811-1	55	W	C	BD	RHR PUMP DISCHARGE TR A (63)	CB CB CB	111 632 634	- - -	GL CK CK	AO - -	RM SA SA	- - -	- - -	V C C	V C C	C V V	C - -	C - -	Y N N	N Y Y	A A A	E	AS20B			
 <p>EL 728'6" AZ 289°30'</p>	47W811-1	56	W	C	BD	SIS PUMP DISCHARGE TO HOT LEGS TR B (63)	CB CB CB	167 547 549	- - -	GL CK CK	AO - -	RM SA SA	- - -	- - -	C - -	C - -	V - -	C - -	C - -	Y N N	N Y Y	A A A	E	AS21			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																													
PENETRATION DATA													VALVE DATA																
DETAILS	DWG NUMBER	GEN DES CRITERION			PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																						Y	N	A	E				
	47W811-1	55	W	C	BD		SIS CHARGING PUMP DISCHARGE (63)	CB CB	174 581	-	GL CK	AO -	RM SA	-	-	-	V -	V -	C -	C -	C -	Y N	N Y	A A	E	AS22			
<p>X-23</p> <p>EL 729' AZ 283°</p>	47W625-15	-	-	-	-		SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				
	47W813-1 47W811-1 47W812-1	56	W	H	BD		RELIEF VALVE DISCHARGE (68)	CB	559	-	CK	-	SA	-	-	-	C	C	C	-	-	N	Y	A	E	AS24	25		

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																																	
PENETRATION DATA															VALVE DATA																		
DETAILS	DWG NUMBER	GEN DES CRITERION				PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		55	W	H	AD																Y	N	AC	Y	N	AC	Y	N					
 EL 723'6" AZ 294°	47W625-1	55	W	H	AD	PRESSURIZER LIQUID SAMPLE (43)	CB SB	11 12	B A	GL GL	SO AO	AT AT	RM RM	PA PA	5.0 5.0	V V	V V	C C	C C	C C	Y Y	N N	AC AC		N		MK44H	15					
X-25B  EL 723'6" AZ 294°	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-							
X-25C  EL 723'6" AZ 294°	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-								

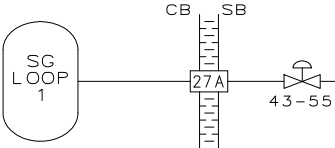
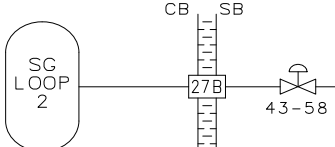
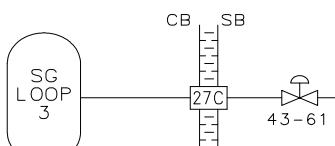
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

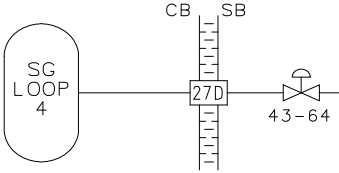
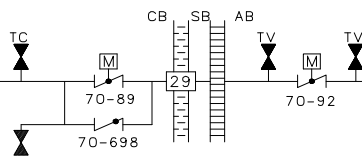
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DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	N	Y				
 <p>EL 723'6" AZ 294°</p>	47W625-1	55	S	H	AD	PRESSURIZER STEAM SAMPLE (43)	CB SB	2 3	B A	GL GL	SO AO	AT AT	RM RM	PA PA	5.0 5.0	V V	V V	C C	C C	C C	Y Y	N N	AC AC	N	MK44D	15			

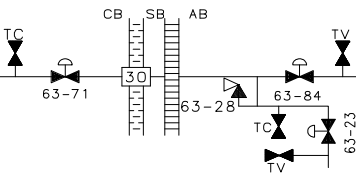
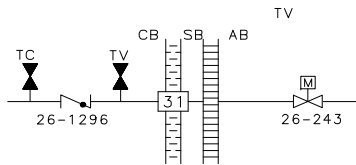
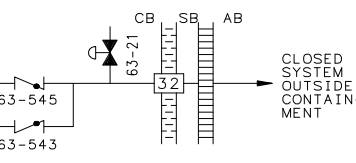


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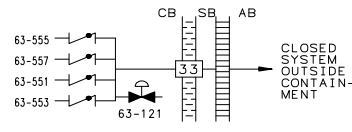
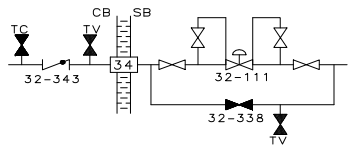
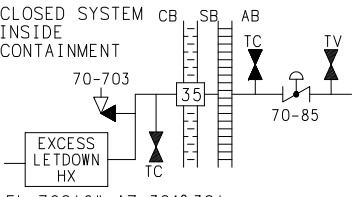
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																					
DETAILS	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																			POST-ACCIDENT	POWER FAILURE	ILRT	ESF	A	N	MK	46M					
 <p>EL 723'6" AZ 292°</p>	47W625-2	56	W	H	A B D	STM GEN NO. 1 SAMPLE (43) SAMPLE AND WATER QUALITY	SB	55	A	GL	AO	AT	RM	PA	10.0	V	V	C	C	C	Y	N	A	N			MK046M	22			
 <p>EL 723'6" AZ 292°</p>	47W625-2	56	W	H	AB D	STM GEN NO. 2 SAMPLE (43)	SB	58	A	GL	AO	AT	RM	PA	10.0	V	V	C	C	C	Y	N	A	N			MK46M	22			
 <p>EL 723'6" AZ 292°</p>	47W625-2	56	W	H	AB D	STM GEN NO. 3 SAMPLE (43)	SB	61	A	GL	AO	AT	RM	PA	10.0	V	V	C	C	C	Y	N	A	N			MK46M	22			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA													VALVE DATA															
DETAILS	DWG NUMBER	GEN DES CRITERION			PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	VALVE STATUS										NOTES
		W	H	AB D														NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION		
 <p>EL 723'6" AZ 292°</p>	47W625-2	56	W	H	AB D		STM GEN NO. 4 SAMPLE (43)	SB	64	A	GL	AO	AT	RM	PA	10.0	V	V	C	C	C	Y	N	A	N	MK46M	22	
<p>X-28</p> <p>EL 721' AZ 287°30'</p>	47W625-15	-	-	-	-		SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-		
 <p>EL 720 AZ 288°30'</p>	47W859-2 47W859-3	56	W	C	AD		CCS FROM RC PUMP COOLERS (70)	CB AB CB	89 92 698	B A -	BF BF CK	MO MO -	AT AT SA	- - -	PB PB -	66.0 66.0 -	O O O	O O V	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK50	8	

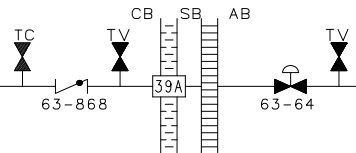
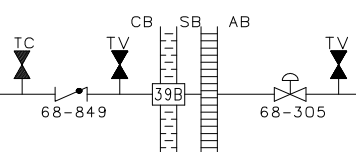
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																													
PENETRATION DATA															VALVE DATA														
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																				POS IND IN MCR	ESF	ILRT	Y	N	AC				
 <p>EL 720' 6" AZ 291° 30'</p>	47W811-1	56	W	C	BD	ACCUM TO HOLDUP TANKS (63)	CB AB AB AB	71 84 23 28	A B B -	GL GL GL RV	AO AO AO -	AT AT AT SA	RM - - -	PA PA PA -	10.0 10.0 10.0 -	V V V C	V V V V	C C C C	C C C C	C C C C	Y Y Y N	N N N N	AC AC AC AC	N	AS30	9			
 <p>EL 722' AZ 289° 30'</p>	47W850-9	56	A	C	AB D	FIRE PROTECTION (26)	CB AB	1296 243	- A	CK GA	- MO	SA AT	RM -	PA -	- 20.0	C O	C O	C C	- C	C C	N Y	N N	AC AC	N	MK49				
 <p>EL 720' 6" AZ 282° 30'</p>	47W811-1	55	W	C	BD	SIT TO HOT LEGS (63)	CB CB CB	545 543 21	- - -	CK CK GL	- - AO	SA SA RM	RM - -	- - -	- C V	C C V	C C C	- - C	- - C	N N Y	Y Y N	A A A	E	AS32					

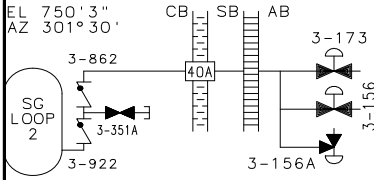
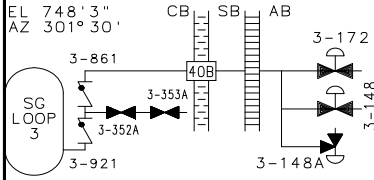
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																			
DETAILS	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS					APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																					POS IND IN MCR	ESF	POS IND IN MCR	ESF	APP J TEST				
 <p>EL 720' 6" AZ 277° 30'</p>	47W811-1	55	W	C	BD	SI TO LOW HEAD SI (63)	CB 553 CB 551 CB 557 CB 555 CB 121	— — — — —	CK CK CK CK GL	— — — — AO	SA SA SA SA RM	— — — — —	— — — — —	— — — — —	C C C C V	C C C C V	V V V V C	— — — — C	— — — — C	N N N N Y	Y Y Y Y N	A A A A A	E	AS33					
 <p>EL 720' 6" AZ 299° 30'</p>	47W848-1	56	A	C	AB D	CONTROL AIR I & C (32)	CB 343 SB 111 SB 338	— A —	CK GL GL	— AO M	SA AT LM	— RM —	— PB —	— 10.0 —	O O C	O O C	C C C	— C AI	— C C	N Y N	N N N	AC AC AC	N	MK43	10				
 <p>EL 720' 6" AZ 301° 30'</p>	47W859-2, 3	57	W	C	AD	CCS FROM EXCESS LETDN HX (70)	CB 703 AB 85	— B	RV BF	— AO	SA AT	— RM	— PA	— 10.0	V V	V V	V C	C C	C C	N Y	N N	AC AC	N	MK42	11				

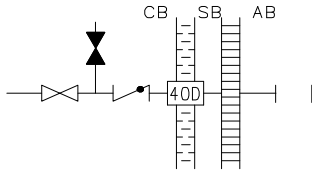
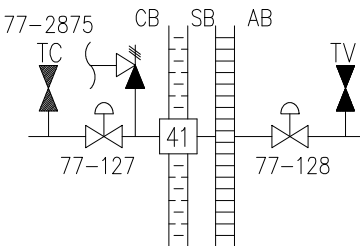
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																													
PENETRATION DATA															VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION				SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS				POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES	
		PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	ESF															AB	N	N							
<div><div><div>CB</div><div>SB</div><div>36</div></div><div>EL 742'6" AZ 280°</div></div>	72-4333-310	-	A	C	AB	SG. CHEM. CLEANING	SB	-	-	BL	M	LM	-	-	-	C	V	C	-	C	N	N	AB	N		MK20			
<div><div><div>CB</div><div>SB</div><div>37</div></div><div>EL 771'6" AZ 265°</div></div>	47W301-1	-	A	C	AB	MAINT. PORT	CB	-	-	BL	M	LM	-	-	-	C	V	C	-	C	N	N	AB	N		MK14			
<div><div>X-38</div><div>EL 771'6" AZ 268°</div></div>	48N406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-		-			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

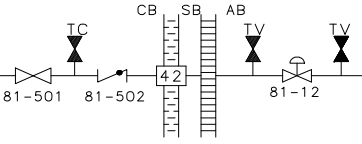
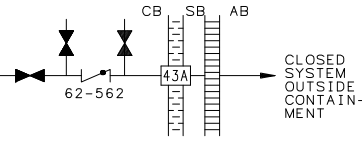
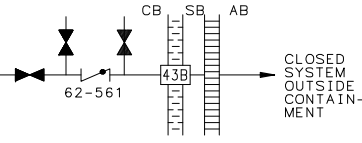
PENETRATION DATA										VALVE DATA																					
DETAILS	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	N	Y	N				
 <p>EL 720'6" AZ 280°</p>	47W830-6	56	N2	C	AD		N2 TO ACCUM (63)	CB AB	868 64	- A	CK GL	- AO	SA AT	- RM	- PA	- 10.0	O V	O O	C C	- C	- C	N Y	N N	AC AC	N	MK55M					
 <p>EL 720'6" AZ 280°</p>	47W830-6	56	N2	C	AD		N2 TO PRESS RELIEF TK (68)	CB AB	849 305	- A	CK DI	- AO	SA AT	- RM	- PA	- 10.0	O O	O O	C C	- C	- C	N Y	N N	AC AC	N	MK55M					
<p>X-39C</p> <p>EL 720'6" AZ 280°</p>	47W331-2	-	-	-	-		SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-					

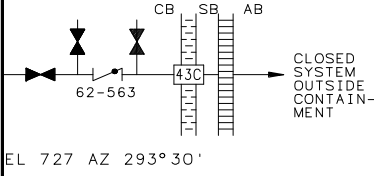
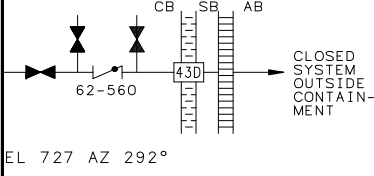
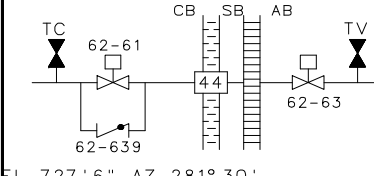
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA													VALVE DATA															
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																					POS IND IN MCR	ESF	ES	ESF				
X-39D  EL 720'6" AZ 280°	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
	47W803-2	57	W	C	BC E	AUX FW (3)	AB	156	A	GL	AO	RM	LM	-	-	C	C	V	O	C	Y	N	A	E	MK9	22		
							AB	156A	A	A	AO	RM	LM	-	-	C	C	V	C	C	Y	N	A					
							AB	173	B	GL	AO	RM	LM	-	-	C	C	V	C	C	Y	N	A					
	47W803-2	57	W	C	BC E	AUX FW (3)	AB	148	B	GL	AO	RM	LM	-	-	C	C	V	O	C	Y	N	A	E	MK11	22		
							AB	148A	B	A	AO	RM	LM	-	-	C	C	V	C	C	Y	N	A					
							AB	172	A	GL	AO	RM	LM	-	-	C	C	V	C	C	Y	N	A					



WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																										
PENETRATION DATA													VALVE DATA													
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS					NOTES
																					POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION		
X-400  EL 750'3" AZ 299°30'	48N406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-	
 EL 748'3" AZ 299°30'	47W846-2 47W492-2	-	A	C	AD	SERVICE AIR (33)	AB	-	-	BL	M	LM	-	-	-	C	C	C	-	C	-	N	AB	N	MK12	
 EL 719'6" AZ 294°	47W851-1	56	W	C	AD	FL SUMP PUMP DISCH (77)	CB AB CB	127 128 2875	B A -	BA BA RV	AO AO -	AT AT -	RM RM -	PA PA -	10.0 10.0 -	O O C	O O C	C C V	C C C	C C C	Y Y N	N N N	AC AC AC	N	MK47	

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

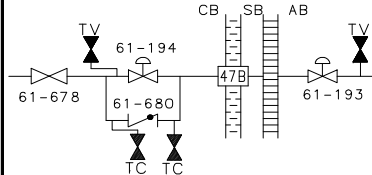
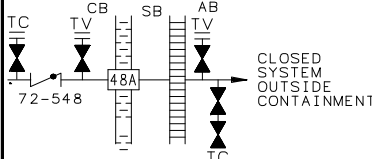
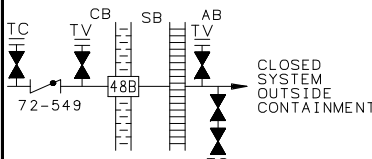
DETAILS	PENETRATION DATA										VALVE DATA																		NOTES
	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS									ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR			
	47W819-1	56	W	C	ABD	PRESS RLF TK MAKE-UP (81)	CB AB	502 12	— A	CK DI	— AO	SA AT	— RM	— PA	— 10.0	V V	C C	C C	— C	— C	N Y	N N	AC AC	N	MK39				
	47W809-1	55	W	C	AD	TO RCP SEALS (62)	CB	562	—	CK	—	SA	—	—	—	O	C	C	—	—	N	N	A	N	MK31				
	47W809-1	55	W	C	AD	TO RCP SEALS (62)	CB	561	—	CK	—	SA	—	—	—	O	C	C	—	—	N	N	A	N	MK29				

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																											
PENETRATION DATA														VALVE DATA													
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	VALVE STATUS											
																NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES		
 <p>EL 727' AZ 293° 30'</p>	47W809-1	55	W	C	AD	TO RCP SEALS (62)	CB	563	-	CK	-	SA	-	-	-	O	C	C	-	-	N	N	A	N	MK28		
 <p>EL 727' AZ 292°</p>	47W809-1	55	W	C	AD	TO RCP SEALS (62)	CB	560	-	CK	-	SA	-	-	-	O	C	C	-	-	N	N	A	N	MK30		
 <p>EL 727' 6" AZ 281° 30'</p>	47W809-1	55	W	C	AD	FROM RCP SEALS (62)	CB AB CB	61 63 639	B A -	GA CA CK	MO MO -	AT AT SA	RM RM -	PA PA -	10.0 10.0 -	O O O	V V O	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK37		

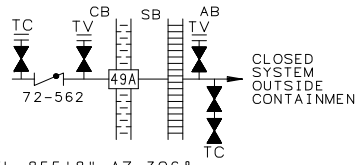
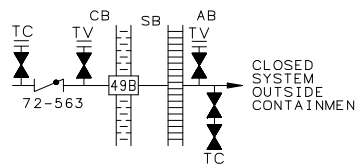
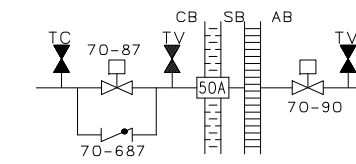
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	C	C	C	C	C					C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

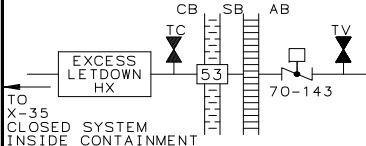
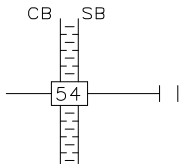
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA																					
	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS								APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																					POS IND IN MCR	ESF	Y	N	C	O	Y	N				
 <p>EL 808' 6" AZ 296° 30'</p>	47W814-2	56	G	C	BD	GLYCOL RETURN (61)	CB AB CB	194 193 680	B A -	DI DI CK	AO AO -	AT AT SA	RM RM -	PA PA -	30.0 30.0 -	O O O	O O O	C C V	C C -	O O O	Y Y N	N N C	C C C	N	MK26	8						
 <p>EL 855' 8" AZ 301° 30'</p>	47W812-1	56	W	C	AD	CONT. SPRAY (72)	CB	548	-	CK	-	SA	-	-	-	C	C	V	-	-	N	Y	A	E	MK4	26						
 <p>EL 853' 8" AZ 304°</p>	47W812-1	56	W	C	AD	CONT. SPRAY (72)	CB	549	-	CK	-	SA	-	-	-	C	C	V	-	-	N	Y	A	E	MK3	26						

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA																	NOTES
	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS					APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION			
																		POST-ACCIDENT	POWER FAILURE	POS IND IN MCR	ILRT	Y				A	E	
 <p>EL 855'8" AZ 306°</p>	47W812-1	56	W	C	AD	RHR SPRAY (72)	CB	562	-	CK	-	SA	-	-	-	C	C	V	-	-	N	Y	A	E		MK2		26
 <p>EL 853'8" AZ 308°</p>	47W812-1	56	W	C	AD	RHR SPRAY (72)	CB	563	-	CK	-	SA	-	-	-	C	C	V	-	-	N	Y	A	E		MK1		26
 <p>EL 734'6" AZ 300°30'</p>	47W859-3 47W859-2	56	W	C	AD	RCP THERM BARRIER RETURN (70)	CB AB CB	87 90 687	B A -	GA GA CK	MO MO -	AT AT -	RM RM -	PB PB -	66.0 66.0 -	O O O	O O V	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N		MK16		8

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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DETAILS	DWG NUMBER	GEN DES CRITERION			PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		W	C	AD															SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	AC	AI	C	O	O					O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

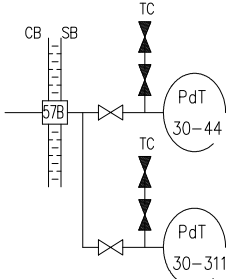
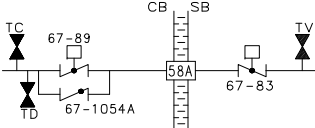

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																													
PENETRATION DATA															VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION			PROCESS FLUID	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								SHIELD BLDG PENETRATION	NOTES	
		W	C	AD															C	Y	N	AC	N	MK41					
 <p>EL 721'6" AZ 301°</p>	47W859-2 47W859-3	57	W	C	AD	CCS TO EXCESS COOLERS LETDN HX (70)	AB	143	A	BF	MO	AT	RM	PA	66.0	V	C	C	AI	C	Y	N	AC	N	MK41	11			
 <p>EL 740 AZ 90°</p>	72-4334-315	-	A	C	BC	IITA RENEWAL	SB	-	-	BL	M	LM	-	-	-	C	V	C	-	O	N	N	AB	N	MK72	16			
<p>X-55</p> <p>EL 771'6" AZ 262°</p>	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				



WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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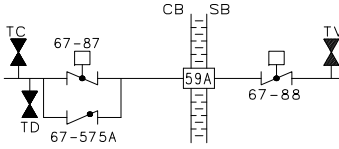

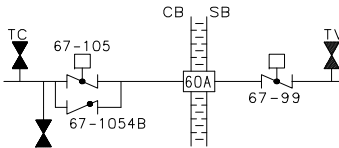
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA																			NOTES
	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS							ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION				
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST								
	47W600-89	-	A	C	B	dP SENSOR (30)	SB	SNSR	-	-	-	-	-	-	-	O	O	O	-	-	-	N	A	E	-		12			
	47W845-3	56	W	C	AB DE	LWR CONT ERCW SUPPLY (67)	CB SB CB	1054A 83 89	- B A	CK BF BF	- MO MO	SA AT AT	- RM RM	- PB PB	- 66.0 66.0	O O O	O O O	V C C	- AI AI	- C C	N Y Y	N N N	AC AC AC	N	MK79					
	47W600-75	54	W	C	BD	RCS PRESSURE SENSOR (68)	-	-	-	-	-	-	-	-	-	O	O	O	-	N	N	A	E	MK126		28				

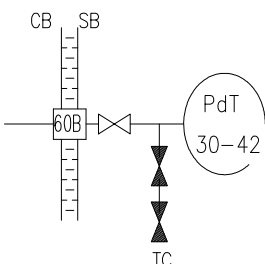
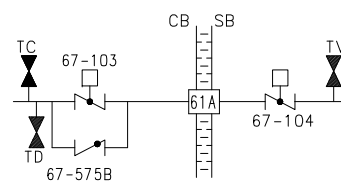
X-58B

EL 720' AZ 13°

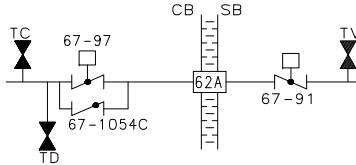
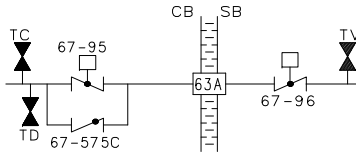
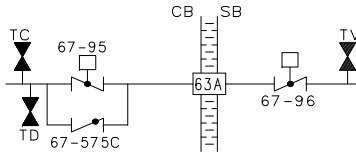
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

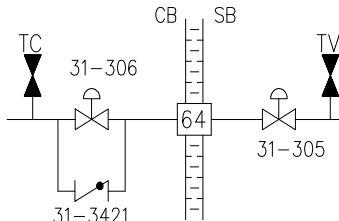
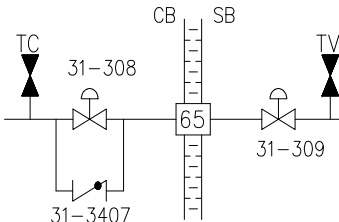
PENETRATION DATA										VALVE DATA																					
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AI	C	V	AI	C				
 <p>EL 720 AZ 8° 30'</p>	47W845-3	56	W	C	AB DE	LWR CONT ERCW RETURN (67)	CB SB CB	87 88 575A	A B -	BF BF CK	MO MO -	AT AT SA	RM RM -	PB PB -	66.0 66.0 -	O O O	O O O	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK78	8					
 <p>EL 720 AZ 14° 30'</p>	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-						
 <p>EL 720 AZ 173°</p>	47W845-3	56	W	C	AB DE	LWR CONT ERCW SUPPLY (67)	CB SB CB	1054B 99 105	- A B	CK BF BF	- MO MO	SA AT AT	RM RM RM	PB PB PB	- 66.0 66.0	O O O	O O O	V C C	- AI AI	- C C	N Y Y	N N N	AC AC AC	N	MK77	8					

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

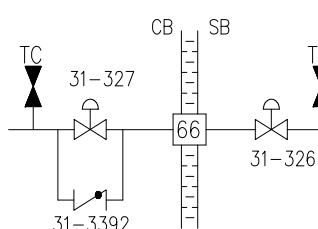
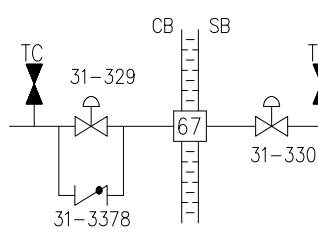
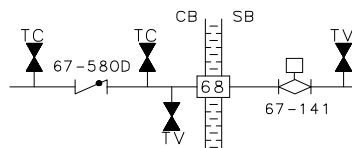
PENETRATION DATA										VALVE DATA																							
DETAILS	DWG NUMBER	GEN DES CRITERION				PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		A	C	B	N															A	E												
 <p>EL 720'-6" AZ 174° 15'</p>	47W600	-	A	C	B	dP SENSOR (30)	SB	SNSR	-	-	-	-	-	-	-	-	-	O	O	O	-	-	-	N	A	E	-		12				
 <p>EL 720' AZ 171° 30'</p>	47W845-3	56	W	C	AB DE	LWR CONT ERCW RETURN (67)	CB SB CB	103 104 575B	B A -	BF BF CK	MO MO -	AT AT SA	RM RM -	PB PB -	66.0 66.0 -	O O O	O O O	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N		MK76		8					
<p>X-61B</p> <p>EL 720 AZ 175° 30'</p>	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-						

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

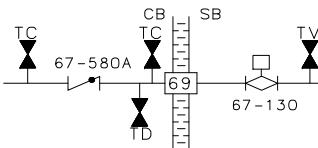
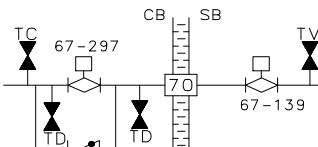
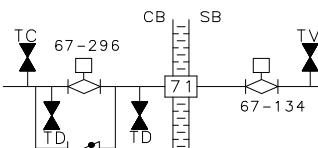
PENETRATION DATA										VALVE DATA																					
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	AC	AC	AC	AC				
 <p>EL 720 AZ 187°</p>	47W845-3	56	W	C	AB DE	LWR CONT ERCW SUPPLY (67)	CB SB CB	1054C 91 97	— B A	CK BF BF	— MO MO	SA AT AT	— RM RM	— PB PB	— 66.0 66.0	O O O	O O O	V C C	— AI AI	— C C	N Y Y	N N N	AC AC AC	N	MK74	8					
 <p>EL 720 AZ 193°</p>	48W406	—	—	—	—	SPARE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	A	—	—						
 <p>EL 720 AZ 189° 30'</p>	47W845-3	56	W	C	AB DE	LWR CONT ERCW RETURN (67)	CB SB CB	95 96 575C	A B —	BF BF CK	MO MO —	AT AT SA	RM RM —	PB PB —	66.0 66.0 —	O O O	O O O	C C V	AI AI —	C C —	Y Y N	N N N	AC AC AC	N	MK75	8					

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION				SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		GEN DES	CRITERION	PROCESS FLUID	FLUID STATE																POS IND IN MCR	ESF	APP J TEST					
X-63B  EL 720 AZ 194°30'	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
 EL 737 AZ 65°	47W865-5	56	W	C	AB D	INST RM CHILL H2O RETURN (31)	CB SB CB	306 305 3421	A B -	GL GL CK	AO AO -	AT AT SA	RM RM -	PA PA -	10.0 10.0 -	O O O	O O V	C C -	C C -	C C -	Y Y N	N N N	AC AC AC	N	MK92	8		
 EL 738 AZ 65°	47W865-5	56	W	C	AB D	INST RM CHILL H2O SUPPLY (31)	CB SB CB	308 309 3407	A B -	GL GL CK	AO AO -	AT AT SA	RM RM -	PA PA -	10.0 10.0 -	O O O	O O V	C C -	C C -	C C -	Y Y N	N N N	AC AC AC	N	MK90	8		

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																					
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	POST-ACCIDENT	POWER FAILURE				
 <p>EL 737 AZ 104°</p>	47W865-5	56	W	C	AB D	INST RM CHILL H2O RETURN (31)	CB SB CB	327 326 3392	B A -	GL GL CK	AO AO -	AT AT SA	RM RM -	PA PA -	10.0 10.0 -	O O O	O O O	C C V	C C -	C C O	Y Y N	N N N	AC AC AC	N	MK93	8					
 <p>EL 738 AZ 104°</p>	47W865-5	56	W	C	AB D	INST RM CHILL H2O SUPPLY (31)	CB SB CB	329 330 3378	B A -	GL GL CK	AO AO -	AT AT SA	RM RM -	PA PA -	10.0 10.0 -	O O O	O O O	C C V	C C -	C C O	Y Y N	N N N	AC AC AC	N	MK91	8					
 <p>EL 794 '6" AZ 301° 15'</p>	47W845-3	56	W	C	AB DE	UPPER CONT ERCW SUPPLY (67)	CB SB	580D 141	- B	CK PG	- MO	SA AT	- RM	- PB	- 66.0	- O	- O	- C	- AI	- C	N Y	N N	AC AC	N	MK88						

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

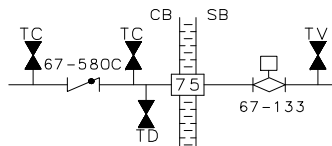
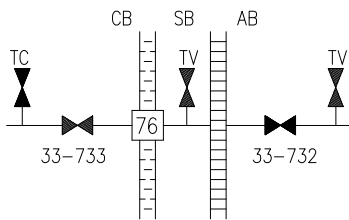
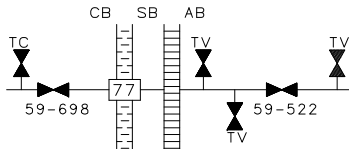
PENETRATION DATA										VALVE DATA																	
DETAILS	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	VALVE STATUS						NOTES
																					POS IND IN MCR	ESF	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION		
 <p>EL 796' 6" AZ 301° 15'</p>	47W845-3	56	W	C	AB DE	UPPER CONT ERCW SUPPLY (67)	CB SB	580A 130	- A	CK PG	- MO	SA AT	- RM	- PB	- 66.0	- O	- O	- C	- AI	- C	N Y	N N	AC AC	N	MK86		
 <p>EL 798' 6" AZ 301° 15'</p>	47W845-3	56	W	C	AB DE	UPPER CONT ERCW RETURN (67)	CB SB CB	297 139 585B	B A -	PG PG CK	MO MO -	AT AT SA	RM RM -	PB PB -	66.0 66.0 -	O O O	O O V	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK84	8	
 <p>EL 800' 6" AZ 301° 15'</p>	47W845-3	56	W	C	AB DE	UPPER CONT ERCW RETURN (67)	CB SB CB	296 134 585C	A B -	PG PG CK	MO MO -	AT AT SA	RM RM -	PB PB -	66.0 66.0 -	O O O	O O V	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK82	8	



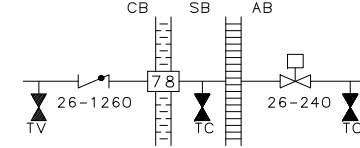
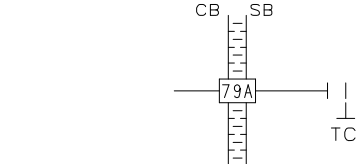
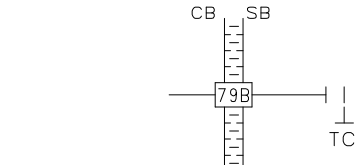
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA																			
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																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	Y	N					AC
	47W845-3	56	W	C	AB DE	UPPER CONT ERCW RETURN (67)	CB SB CB	298 142 585D	B A -	PG PG CK	MO MO -	AT AT SA	RM RM -	PB PB -	66.0 66.0 -	O O O	O O O	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK89	8				
	47W845-3	56	W	C	AB DE	UPPER CONT ERCW RETURN (67)	CB SB CB	295 131 585A	A B -	PG PG CK	MO MO -	AT AT SA	RM RM -	PB PB -	66.0 66.0 -	O O O	O O O	C C V	AI AI -	C C -	Y Y N	N N N	AC AC AC	N	MK87	8				
	47W845-3	56	W	C	AB DE	UPPER CONT ERCW SUPPLY (67)	CB SB	580B 138	- B	CK PG	- MO	SA AT	- RM	- PB	- 66.0	O O	O O	C C	- AI	- C	N Y	N N	AC AC	N	MK85					

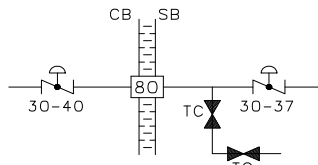
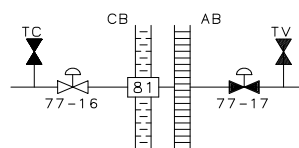
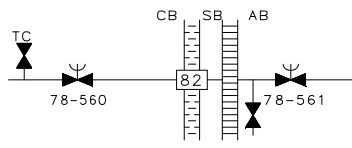
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA																		NOTES		
	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST		ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION
																		SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	AI	C	O				
 <p>EL 799'6" AZ 301°15'</p>	47W845-3	56	W	C	AB DE	UPPER CONT ERCW SUPPLY (67)	CB SB	580C 133	- A	CK PG	- MO	SA AT	- RM	- PB	- 66.0	O O	O O	C C	- AI	- C	N Y	N N	AC AC	N		MK83					
 <p>EL 711 AZ 300°</p>	47W846-2	56	A	C	AD	SERVICE AIR (33)	CB AB	733 732	- -	DI DI	M M	LM LM	- -	- -	- -	C C	O O	C C	- -	C C	N N	N N	AC AC	N		MK97					
 <p>EL 710'6" AZ 299°</p>	47W856-1	56	W	C	AD	DEMIN WATER (59)	CB AB	698 522	- -	DI DI	M M	LM LM	- -	- -	- -	C C	O O	C C	- -	C C	N N	N N	AC AC	N		MK96					

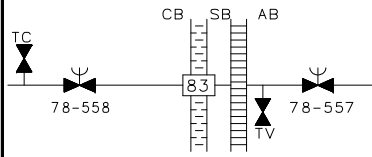
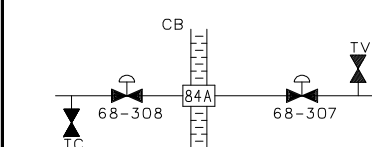
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																			
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS								NOTES
 <p>EL 798'9" AZ 301°</p>	47W850-9	56	A	C	AB D	FIRE PROTECTION (26)	CB AB	1260 240	— A	CK GA	— MO	SA AT	— RM	— PA	— 20.0	C O	C O	C C	— AI	— C	N Y	N N	AC AC	N			MK98		
 <p>EL 808 AZ 289°</p>	47W814-1 47W462-7	56	I	C	AB	ICE BLOWING (61)	SB			BL	M	LM	—	—	—	C	V	C	—	C	N	N	AB	N			MK23		
 <p>EL 809 AZ 290°</p>	47W814-1 47W462-7	56	I	C	AB	NEGATIVE RETURN (61)	SB			BL	M	LM	—	—	—	C	V	C	—	C	N	Y	AB	N			MK24		

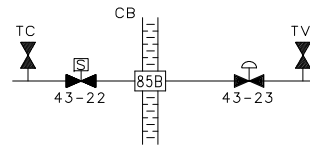
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																			
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	Y	N	AC	C				
 <p>EL 720 AZ 286°30'</p>	47W866-1	56	A	C	AB CE	LWR COMP PRESS RELIEF (30)	CB SB	40 37	A B	BF BF	AO AO	AT AT	RM RM	CV CV	4.0 4.0	V V	C C	C C	C C	C C	Y Y	N N	AC AC	N	MK71	3,6,14			
 <p>EL 718 AZ 287°</p>	47W830-1	56	A	C	AD	RC DR TK TO GAS ANALYZER (77)	CB AB	16 17	B A	DI DI	AO AO	AT AT	RM RM	PA PA	10.0 10.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	ASO81				
 <p>EL 718 AZ 282°30'</p>	47W855-1	56	W	C	AB D	REFUEL CAV PRFCN PUMP SUCT (78)	CB AB	560 561	— —	DI DI	M M	LM LM	— —	— —	C C	V V	C C	— —	C C	N N	N N	AC AC	N	MK94					

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA																		NOTES		
	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION		VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST		ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF									
 <p>EL 733 AZ 294°</p>	47W855-1	56	W	C	AB D	REFUEL CAV PRFCN PUMP SUCT (78)	CB AB	558 557	— —	DI DI	M M	LM LM	— —	— —	— —	C C	V V	C C	— —	C C	N N	N N	AC AC	N	MK95						
 <p>EL 723 AZ 307° 30'</p>	47W625-8	56	N	C	AD	P.R.T. TO GAS ANALYZER (68)	CB SB	308 307	B A	GL GL	AO AO	AT AT	RM RM	PA PA	10.0 10.0	V V	O O	C C	C C	C C	Y Y	N N	AC AC	N	MK99M						
<p>X-84B</p> <p>EL 723 AZ 307° 30'</p>	47W600-292	—	W	C	BD	RVLIS (68)	—	—	—	—	—	—	—	—	—	O	O	O	—	—	N	N	A	E	MK101	21					

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																															
PENETRATION DATA														VALVE DATA																	
DETAILS	DWG NUMBER	GEN DES CRITERION				PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS										NOTES
		-	W	C	BD																POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION			
X-84C  EL 723 AZ 307° 30'	47W600-292	-	W	C	BD	RVLIS (68)	-	-	-	-	-	-	-	-	-	-	-	O	O	O	-	-	N	N	A	E	MK101	21			
X-84D  EL 723 AZ 307° 30'	47W600-292	-	W	C	BD	RVLIS (68)	-	-	-	-	-	-	-	-	-	-	-	O	O	O	-	-	N	N	A	E	MK101	21			
X-85A  EL 723' AZ 306°	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																													
PENETRATION DATA															VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES				
																										VALVE STATUS			
 <p>EL 723 AZ 306°</p>	47W625-1	55	W	H	AB D	HOT LEG SAMPLE LOOPS 1 & 3 (43)	CB SB	22 23	B A	GL GL	SO AO	AT AT	RM RM	PA PA	10.0 10.0	V V	V V	C C	C C	C C	Y Y	N N	AC AC	N	MK100M	15			
<p>X-85C</p> <p>EL 723' AZ 306°</p>	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-					
<p>X-85D</p> <p>EL 723 AZ 306°</p>	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-					

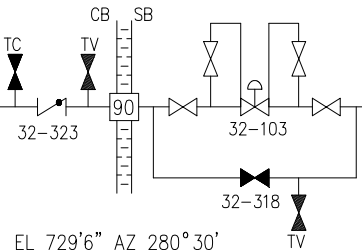
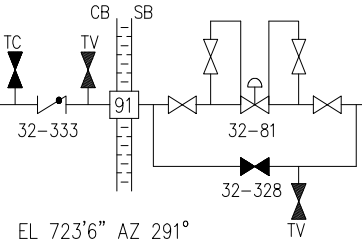
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PENETRATION DATA													VALVE DATA													
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES	
																										VALVE STATUS
X-86A  EL 721'-6" AZ 307°30'	47W625-15	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-		
X-86B  EL 721'-6" AZ 307°30'	47W625-15	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-		
X-86C  EL 721'-6" AZ 307°30'	47W625-15	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-		



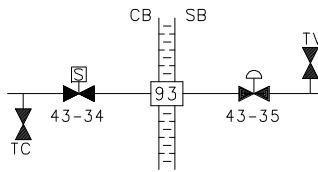
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PENETRATION DATA														VALVE DATA														
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		GEN DES	CRITERION	PROCESS FLUID	FLUID STATE																POS IND IN MCR	ESF	APP J TEST	ESSENTIAL/NON-ESS				
X-86D  EL 721'6" AZ 307°30'	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
X-87A  EL 721'6" AZ 306°	47W331-2	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				
X-87B  EL 721'6" AZ 306°	47W600-292 47W331-2	-	W	C	BD	RVLIS (68)	-	-	-	-	-	-	-	-	-	-	-	-	-	N	N	A	E	-	21			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION				PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		-	W	C	BD																N	N	A	E				
X-87C  EL 721'6" AZ 306°	47W600-292 47W331-2	-	W	C	BD	RVLIS (68)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	N	A	E	MK102	21	
X-87D  EL 721'6" AZ 306°	47W600-292 47W331-2	-	W	C	BD	RVLIS (68)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	N	N	A	E	MK102	21		
X-88  EL 733 AZ 277° 30'	48W406 47W850-9	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	MK-103	29		

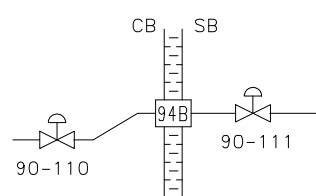
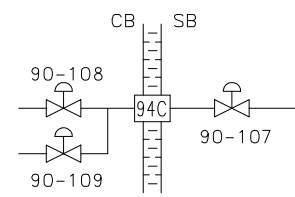
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

DETAILS	PENETRATION DATA										VALVE DATA															NOTES		
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																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION				
X-89	48W406 47W850-9	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	MK-104	30		
EL 732 AZ 278° 30'																												
	47W848-1	56	A	C	AB D	CONTROL AIR TR-B (32)	CB SB SB	323 103 318	- B -	CK GL GA	- AO M	SA AT LM	- RM -	- PB -	- 10.0 -	O O C	O O C	C C C	- C AI	- C C	N Y N	N N N	AC AC AC	N	MK105	10		
EL 729'6" AZ 280° 30'																												
	47W848-1	56	A	C	AB D	CONTROL AIR TR-A (32)	CB SB SB	333 81 328	- A -	CK GL GA	- AO M	SA AT LM	- RM -	- PB -	- 10.0 -	O O C	O O C	C C C	- C AI	- C C	N Y N	N N N	AC AC AC	N	MK56	10		
EL 723'6" AZ 291°																												

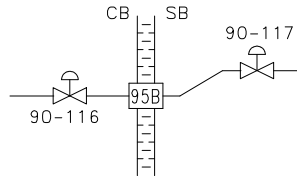
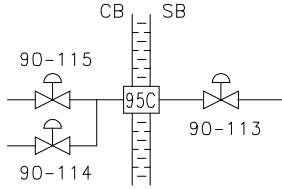
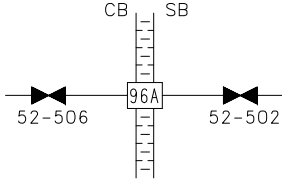
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PENETRATION DATA														VALVE DATA																
DETAILS	DWG NUMBER	GEN DES CRITERION				PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS		POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
X-92A  EL 723 AZ 290°	47W625-11	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
X-92B  EL 723 AZ 290°	47W625-11	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
X-92C  EL 723'-6" AZ 290°	47W625-15	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION				SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	POS IND IN MCR																ESF	APP J TEST						
X-92D  EL 723'6" AZ 290°	47W331-3	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
 EL 723'6" AZ 289°	47W625-2	56	W	C	AB D	ACCUM SAMPLE (43)	CB SB	34 35	B A	GL GL	SO AO	AT AT	RM RM	PA PA	5.0 5.0	V V	C C	C C	C C	C C	Y Y	N N	AC AC	N	MK58			
X-94A  EL 741 AZ 294°	47W600-105 48W406	-	A	C	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				

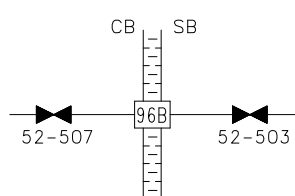
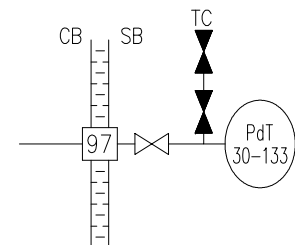
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																			
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	AC	N	Y				
 <p>EL 741 AZ 294°</p>	47W600-105	56	A	C	AB D	LOWER COMP AIR MON INTAKE (90)	CB SB	110 111	B A	GL GL	AO AO	AT AT	RM RM	CV CV	5.0 5.0	O O	O O	C C	C C	C C	Y Y	N N	AC AC	N	MK59M				
 <p>EL 741 AZ 294°</p>	47W600-105	56	A	C	AB D	LOWER COMP AIR MON RETURN (90)	CB SB CB	108 107 109	B A B	GL GL GL	AO AO AO	AT AT AT	RM RM RM	CV CV CV	5.0 5.0 5.0	O O O	O O O	C C C	C C C	C C C	Y Y Y	N N N	AC AC AC	N	MK59M				
<p>X-95A</p> <p>EL 741 AZ 293°</p>	47W600-105	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

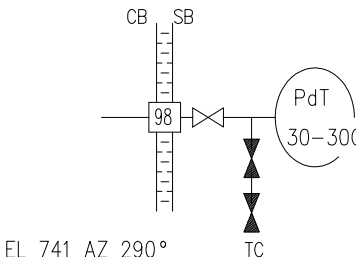
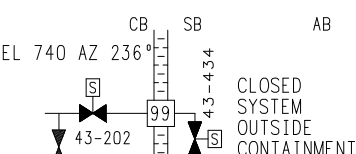
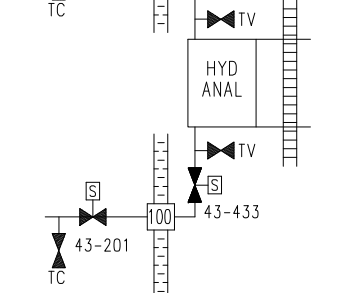
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DETAILS	DWG NUMBER	GEN DES	CRITERION	PROCESS FLUID	STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	VALVE STATUS										APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																		SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	ESF	C	C	C	Y				
 <p>EL 741 AZ 293°</p>	47W600-105	56	A	C	AB D	UPPER COMP AIR MON INTAKE (90)	CB SB	116 117	B A	GL GL	AO AO	AT AT	RM RM	CV CV	5.0 5.0	O O	O O	C C	C C	C C	Y Y	N N	AC AC	N					MK60M		
 <p>EL 741 AZ 293°</p>	47W600-105	56	A	C	AB D	UPPER COMP AIR MON RETURN (90)	CB SB CB	114 113 115	B A B	GL GL GL	AO AO AO	AT AT AT	RM RM RM	CV CV CV	5.0 5.0 5.0	O O O	O O O	C C C	C C C	O C O	Y Y Y	N N N	AC AC AC	N					MK60M		
 <p>EL 741 AZ 292°</p>	47W331-3	56	A	C	B	ILRT SENSOR LINE (52)	CB SB	506 502	— —	GL GL	M M	LM LM	— —	— —	— —	C C	V V	C C	— —	O O	N N	N N	AC AC	N					—		

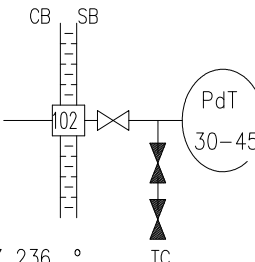
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																					
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																				ILRT	POS IND IN MCR	ESF	AC	N	O	C	V				
 <p>EL 741 AZ 292°</p>	47W331-3	56	A	C	B	ILRT SENSOR LINE (52)	CB SB	507 503	- -	GL GL	M M	LM LM	- -	- -	- -	C C	V V	C C	- -	O O	N N	N N	AC AC	N	-						
<p>X-96C</p> <p>741 AZ 292°</p>	47W600-89	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-						
 <p>EL 741 AZ 291°</p>	47W866-1 2-47W600-89	-	A	C	B	dP SENSOR (30)	SB	SNSR	-	-	-	-	-	-	-	O	O	O	-	-	-	N	A	N	-	12					



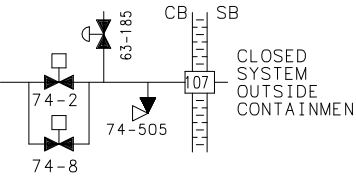
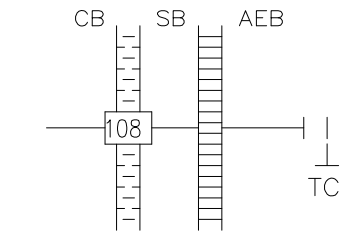
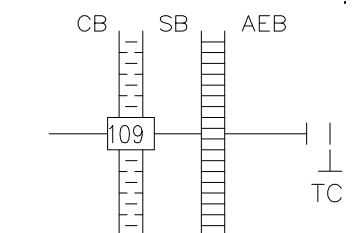
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA									VALVE DATA																	
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	VALVE STATUS								NOTES
																		POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION		
	2-47W600-89	-	A	C	B	dP SENSOR (30)	SB	SNSR	-	-	-	-	-	-	O	O	O	-	-	-	N	A	N	-	12	
	47W625-11	56	A	C	BD	HYDROGEN ANALYZER (43)	CB SB	202 434	A A	GL GL	SO SO	RM RM	- -	- -	C C	C C	O O	C C	O O	Y Y	N N	AC AC	E	MK-54	15	
	47W625-11	56	A	C	BD	HYDROGEN ANALYZER (43)	CB SB	201 433	A A	GL GL	SO SO	RM RM	- -	- -	C C	C C	O O	C C	O O	Y Y	N N	AC AC	E	MK-54	15	
																										

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION				SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	POS IND IN MCR																ESF	ESF	ESF	ESF				
X-101  EL 723'6" AZ 288°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
 EL 728' AZ 236 °	2-47W600-89	-	A	C	B	dP SENSOR (30)	SB	SNSR	-	-	-	-	-	-	O	O	O	-	-	-	N	A	E	-		12		
X-103  EL 723'6" AZ 287°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			

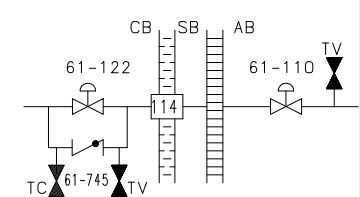
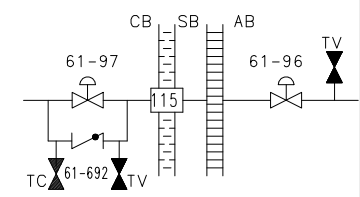
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
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		PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	ESF																POS IND IN MCR	TEST	STATUS	STATUS				
X-104  EL 728 AZ 237°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
X-105  EL 722'-6" AZ 288°	47W625-15	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			
X-106  EL 727' AZ 236°	47W625-15	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-			

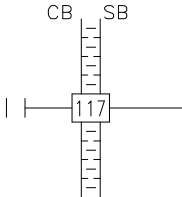
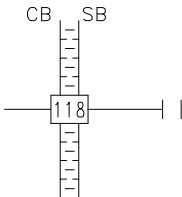
WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																		NOTES
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																									VALVE STATUS			
 <p>EL 717'11.5" AZ 300°30'</p>	47W810-1 47W432-2	55	W	H	BD	RHR SUPPLY TO PUMPS (74.63)	CB CB CB CB	2 8 505 185	B A - A	GA GA RV GL	MO MO - AO	RM RM - RM	LM LM - -	- - - PA	- - - 10.0	C C C V	V V V V	V V V C	AI AI - C	O C C C	Y Y N Y	N N N N	- - - -	E	MK38			
 <p>EL 711'6" AZ 218 °</p>	47W435-18 -22	-	A	C	AB E	MAINT PORT	AB	-	-	BL	M	LM	-	-	-	C	V	C	-	C	N	N	AB	N	AS108			
 <p>EL 711'6" AZ 222 °</p>	47W435-18 -22	-	A	C	AB E	MAINT PORT	AB	-	-	BL	M	LM	-	-	-	C	V	C	-	C	N	N	AB	N	AS109			

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																													
PENETRATION DATA														VALVE DATA															
DETAILS	DWG NUMBER	VALVE STATUS				GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	POS IND IN MCR	APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
X-110  EL 711'6" AZ 209°	48N406 47W435-22	-	-	-	B	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	MK32		
X-111  EL 845'9" AZ 90°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-		
X-112  EL 845'9" AZ 270°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-		

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1

PENETRATION DATA										VALVE DATA																				
DETAILS	DWG NUMBER	GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS						APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
																					POS IN D	ESF	APP J	ESF	APP J					
<div>X-113</div> <div>EL 740 AZ 216°</div>	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<div></div> <div>EL 775 AZ 300°</div>	47W814-2	56	G	C	AB D	GLYCOL FLOOR COOLING (61)	CB AB CB	122 110 745	B A -	DI DI CK	AO AO -	AT AT SA	RM RM -	PA PA -	30.0 30.0 -	O O O	O O V	C C -	C C -	O O O	Y Y N	Y Y Y	C C C	N		MK110		8		
<div></div> <div>EL 771'6" AZ 300°</div>	47W814-2	56	G	C	AB D	GLYCOL FLOOR COOLING (61)	CB AB CB	97 96 692	B A -	DI DI CK	AO AO -	AT AT SA	RM RM -	PA PA -	30.0 30.0 -	O O O	O O V	C C -	C C -	O O O	Y Y N	Y Y Y	C C C	N		MK111		8		

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																												
PENETRATION DATA														VALVE DATA														
DETAILS	DWG NUMBER	GEN DES CRITERION				SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		GEN DES	CRITERION	PROCESS FLUID	FLUID STATE																POS IND IN MCR	ESF	POS IND IN MCR	ESF				
X-116  EL 760 AZ 300°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	MK7			
 EL 758 AZ 300°	47W301-1	-	A	C	AB	MAINT PORT	CB	-	-	BL	M	LM	-	-	-	C	V	C	-	C	N	N	AB	N	MK8			
 EL 708'6" AZ 209°	72-4334-318	-	W	C	AB C	LAYUP WATER TREATMENT (41) AND ANNULUS FLOOD MODE DRAIN	SB	-	-	BL	M	LM	-	-	-	C	O	C	-	O	N	N	AB	N	MK18	27		

WATTS BAR NUCLEAR PLANT CONTAINMENT PENETRATIONS AND BARRIERS-TABLE 6.2.4-1																															
PENETRATION DATA														VALVE DATA																	
DETAILS	DWG NUMBER	GEN DES CRITERION				PROCESS FLUID	FLUID STATE	POSS LEAK PATHS	SYSTEM NUMBER AND PENETRATION DESCRIPTION	VALVE LOCATION	VALVE NUMBER	ESF POWER TRAIN	VALVE TYPE	ACTUATOR	PRI ACT MODE	SEC ACT MODE	ISOLATION SIGNAL	STROKE TIME	NORMAL	SHUTDOWN	POST-ACCIDENT	POWER FAILURE	ILRT	VALVE STATUS				APP J TEST	ESSENTIAL/NON-ESS	SHIELD BLDG PENETRATION	NOTES
		GEN DES CRITERION	PROCESS FLUID	FLUID STATE	POSS LEAK PATHS																			VALVE STATUS							
X-119  EL 844'5" AZ 90°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				
X-120  EL 844'5" AZ 270°	48W406	-	-	-	-	SPARE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	A	-	-				