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DEBRA

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Alabama Power

the southern electric system

F. L. CLAYTON, JR.  
Senior Vice President

June 13, 1979

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USNRC RE...  
ATLANTA, GA...

Docket No. 50-348  
NRC IE Bulletin 79-01

Mr. James P. O'Reilly  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N. W.  
Suite 3100  
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

In response to IE Bulletin 79-01, Environmental Qualification of Class IE Equipment, dated February 8, 1979, Alabama Power Company submits the following response to Items 1-4 for inside containment, Plant Farley-Unit 1.

Item 1: Complete the re-review program described in IE Circular 78-08 within 120 days of receipt of this Bulletin.

The re-review has been completed.

Item 2: Determine if the types of stem mounted limit switches described above (NAMCO Models SL2-C-11, SL3-CML, SA1-31, SA1-32, D1200j, EA700, EA-770) are being used or planned for use on safety-related valves which are located inside containment at your facility. If so, provide a written report to the NRC within the time frame specified and to the address specified in Item 4 below.

None of the above stem mounted limit switches are used or planned for use at Plant Farley-Unit 1.

Item 3: Provide written evidence of qualification of electrical equipment required to function under accident conditions. (This written evidence should include:

- (1) Component Description
- (2) Description of the Accident Environment
- (3) The Environment to Which the Component is Qualified
- (4) Manner of Qualification, Which Should Include Test Methods
- (5) Identification of the Specific Supporting Qualification Documentation

For those items not having complete qualification data available for review, identify your plans for determining qualification, either by testing or engineering analysis, or combination of these, or by replacement with qualified equipment. Include your schedule for completing these actions and your justification for continued operation.

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All equipment has written evidence demonstrating that it will function under accident conditions. The written evidence is provided in attachment A.

Item 4: Report any items which are identified as not meeting qualification requirements for service intended.

All items meet qualification requirements for intended service.

Alabama Power Company's response to IE Bulletin 79-01A, Deficiencies in the Environmental Qualification of ASCO Solenoid Valves, dated June 6, 1979, for Farley Unit 1.

Item 1: Determine whether or not ASCO solenoid valves are used or planned for use in safety-related systems at your facility.

ASCO solenoid valves are used in safety-related system in containment.

Item 2: If such valves are used or planned for use, identify the safety system involved.

See attachment B

Items 2a

& 2b

The ASCO solenoid valves listed on attachment B are used as pilot valves for Containment Isolation Valves. All the solenoid valves except HV 3184, Component Cooling Water from RCP Thermal Barrier, are Phase "A" isolation and will close in less than one (1) second after receipt of the isolation signal. The maximum time for the containment spray after a LOCA is greater than thirty (30) seconds. The solenoids will have performed their function long before this time and isolated containment before the LOCA environment is present. Also, both the solenoid valves and the isolation valve will fail in the closed or safe position.

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Solenoid Valve HV 3184, Component Cooling Water from RCP Thermal Barrier, is a Phase "B" isolation valve. This valve is designed to perform when the pressure in containment reaches 27 psig. Using the serial number which was physically obtained from the valve, it has been determined that this solenoid valve has an HT coil, all metal parts and Vikon seals which are tested to 400°F. The valve is also explosion proof. Therefore, this valve will perform its function under Phase "B" environmental conditions.

Yours very truly,

  
F. L. Clayton, Jr. for

FLCJr/KAP/mmb

cc: Mr. R. A. Thomas  
Mr. G. F. Trowbridge

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
1	Electrical Penetration							Spec 1102-84
	Assemblies and Junction		Temp. (°F)	307.5	340	Sequential	GE 100	FSAR 3.11.2.1
	Boxes		Press. (psig)	46.3	103		Service Test	Bechtel File 7597-03-E-22-97-1
			Rel. Hum.	100%	100%		Report	7597-03-E-22-98-1
	General Electric		Radiation	5.10 <sup>7</sup> Rads	5.10 <sup>7</sup> Rads		Jan., 1974	
			Chem.	NaOH Boric Acid	NaOH Boric Acid			
2	6" Motor Operated Globe						Limitorque	Spec 1102-79
	Valve		Temp. (°F)	307.5	300°F	Sequential	Operators	FSAR 3.11.2.1
			Press. (psig)	46.3	81		Post Accident	Bechtel File 7597-03-M-56.3-557-2
	MCC Pacitif		Rel. Hum.	100%	100		Test Report	
	Limitorque SMB-00-10		Radiation	5.10 <sup>7</sup>	2.04.10 <sup>8</sup>		F-C3441	Mechanically aged 1208 cycles
	(MOV 3530)		Chem.	NaOH Boric Acid			Dated 9/72	Load (Thrust) 20.162 lbs.
3	2-1/2" Motor Operated							Spec 1102-29
	Globe Valve		Temp. (°F)	307.5	300	Sequential	See Item (2)	See Item (2)
			Press. (psig)	46.3	81			

This list is a compilation of items by component. Do not list the same type of component more than once. Use limiting environment where more than one applies.

\*ie, separate effects, sequential, etc.  
 \*\*Please attach typed lists of reference documents.

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
	MCC Pacific		Rel. Hum.	100%	100			
	Limitorque SMB-000-2 (MOV 3872 A & B)		Radiation	5.10 <sup>7</sup>	2.04.10 <sup>8</sup>			
			Chem.	NaOH Boric Acid				
4	3/4" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential	See Item (2)	Spec 1102-40 See Item (2)
			Press. (psig)	46.3	81			
	Kerotest Manufacturing Co.		Rel. Hum.	100%	100			
	Limitorque SMB-000 (MOV 3528 A, B, C, D)		Radiation	5.10 <sup>7</sup>	2.04.10 <sup>8</sup>			
			Chem.	NaOH Boric Acid				
5	3/4" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential	Limitorque Operators	Spec 1102-40 FSAR 3.11.2.1
			Press. (psig)	46.3	81		Post Accident	Bechtel File 7597-03-M-58-3- 557-2
	Kerotest Mfg. Company		Rel. Hum.	100%	100%		Test Report	Mechanical Aging # 1208 cycles
	Limitorque SMB-000 (MOV 3835 A & B)		Radiation	5.10 <sup>7</sup> Rads	2.04.10 <sup>8</sup> Rads		F-C3441	Load (Thrust) 20,162 lbs.
			Chem.	NaOH Boric Acid			Dated 9/72	

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Refs	Remarks
			Parameter	Spec.	Qual.			
6	2" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential	See Item 5	See Item 5
			Press. (psig)	46.3	81			
			Rel. Hum.	100%	100%			
			Radiation	5.10 <sup>7</sup> Rads NaOH	2.04.10 <sup>8</sup> Rads			
	(NOV 3536)		Chem.	Boric Acid				
7	1" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential	See Item 5	See Item 5
			Press. (psig)	46.3	81			
			Rel. Hum.	100%	100%			
			Radiation	5.10 <sup>7</sup> Rads NaOH	2.04.10 <sup>8</sup> Rads			
	(NOV 3660, 3188)		Chem.	Boric Acid				
8	1" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential	See Item 5	See Item 5
			Press. (psig)	46.3	81			
			Rel. Hum.	100%	107			
			Radiation	5.10 <sup>7</sup> Rads NaOH	2.04.10 <sup>8</sup> Rads			
	(NOV 3660, 3188)		Chem.	Boric Acid				

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
	Limitorque SMB-000 (MOV 318A)		Radiation	5.10 <sup>7</sup> Rads	2.04.10 <sup>8</sup> Rads			
			Chem.	NaOH Boric Acid				
9	6" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential	Limitorque Operators Post Accident	FSAR 3.11.2.
	Pacific Valve Co.		Press. (psig)	46.3	81		Test Report	Bechtel F' 1997-03-M-58.3- 37-2
	Limitorque SMB-00-10 (MOV 3740)		Rel. Hum.	100%	100%		F-C3441	Mechanically aged 1208 cycles
			Radiation	5.10 <sup>7</sup> Rads	2.04.10 <sup>8</sup> Rads		Dated 9/72	Load (thrust) of 20,162 lbs.
			Chem	NaOH Boric Acid				
10	6" Motor Operated Globe Valve		Temp. (°F)	307.5	300	Sequential		
	William Powell Co.		Press. (psig)	46.3	81		See Item 9	See Item 9
			Rel. Hum.	100%	100%			

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
	Limitorque SMB-00-25 (MCV 3131)		Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	2.04.10 <sup>8</sup> Rads			
			Chem					
11	10" Motor Operated Gate Valve		Temp. (°F)	307.5	300	Sequential	See Item 9	See Item 9
	William Powell Co.		Press. (psig)	46.3	81			
			Rel. Hum.	100%	100%			
	Limitorque SMB-00-10 (MOV 3441 A,B,C,D)		Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	2.04.10 <sup>8</sup> Rads			
			Chem.					
12	6" Motor Operated Gate Valve		Temp. (°F)	307.5	See Item 9	Sequential	See Item 9	See Item 9
	William Powell Co.		Press. (psig)	46.3				
			Rel. Hum.	100%				

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
	Lamarque SNA-00-10 (NOV 3046)		Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid				
13	Thermocouple Extension Cable		Temp. (°F)	307.5	340	Raychem Qualification	Spec 1102-114 FSAR 3.11.2.1	
			Press. (psia)	46.3	60		to IEEE 303 Technical File 7597-03-E25.2-	
	Raychem		Rel. Hum.	100%	100%		Standard	24-1
			Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	2.10 <sup>8</sup> Rads			
			Chem.					
14	Co-Axial, Tri-Axial Cable		Temp. (°F)	307.5	340	Sequential	See Item 13	
			Press. (psig)	46.3	60			
	Raychem		Rel. Hum.	100%	100%			

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method#	Doc. Ref#	Remarks
			Parameter	Spec.	Qual.			
			Radiation	5.10 <sup>7</sup> Rads NaOH	2.10 <sup>8</sup> Rads			
			Chem.	Boric Acid				
15	Instrumentation Cable		Temp. (°F)	307.5	340	Sequential	Prototype	Spec 1102-101
	Boston I nulated Wire and		Press. (psig)	46.3	105		Test Data	FSAB 3.11.2.1
	Cable Company		Rel. Hum.	100%	100%		B/W Letter	Bechtel File 7597-03-E25.6
			Radiation	5.10 <sup>7</sup> Rads	2.10 <sup>8</sup> Rads		Dated	10-1-14-1
			Chem.	NaOH Boric Acid	NaOH Boric Acid		9/7/75	Aged 28 hrs. at 121°C (250°F)
16	Radiation Monitoring Cable		Temp. (°F)	307.5		Sequential		
	Boston Insulated Wire and		Press. (psig)	46.3	105			
	Cable Company		Rel. Hum.	100%	100%			See Item 15

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method#	Loc. Refs#	Remarks
			Parameter	Spec.	Qual.			
			Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	2.10 <sup>8</sup> Rads NaOH Boric Acid			
			Chem.					
17	Pressurizer Heater Cable		Temp. (°F)	307.5	392	Sequential	Certificate	Requisition 41747
	Anaconda Wire & Cable		Press. (psig)	46.3			of Compli-	FSAR 3.11.2.1
			Rel. Hum.	100%			ance	Bechtel File 7597-03/E25-4-1.1
			Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	5.10 <sup>7</sup> Rads		9/13/76	
			Chem.					
18	Terminal Blocks		Temp. (°F)	307.5	307	Sequential	Wyle Lab	FSAR 3.11.2.1; Bechtel File
	States Co.		Press. (psig)	46.3	80		Report	7957-01/78 E-95 (307°F spike
			Rel. Hum.	100%	100%		44354-1	followed by a 250°F dwell for
							3/8/79	7 days at pressure of 46.3

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
			Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	1.10 <sup>8</sup> Rads			Also spike followed by a 250 <sup>0</sup> F well for 4 hours at 50 psig
			Chem.					
19	Containment, #P Level Transmitter		Temp. (°F)	307.5	282	Sequential	FIRL Report	Spec. 1102-86 FSAR 3.11.2.1
			Press. (psig)	46.3	59		F-C3834	Bechtel File 7957-01 M211.1-
	DeLaval Gems Sensor Div.		Rel. Hum.	100%	100%		Dated 2/74	119-1
			Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	2.10 <sup>8</sup> Rads			MSID has negligible effect due to short duration (15 secs.)
20	Containment Cooler		Temp. (°F)	307.5	340	Sequential	Environmental Qualification Test Report	Spec. 1102-014 FSAR 3.11.2.1
	Joy Manufacturing Co.		Press. (psig)	46.3	80			Bechtel File 7597-03-M12-55-1
			Rel. Hum.	100%	100%			

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
21	Reactor Cavity H <sub>2</sub>		Radiation	5.10 <sup>7</sup> Rr's NaOH Boric Acid	1.10 <sup>9</sup> Rads NaOH Boric Acid	X-604		
			Chem.					
			Temp. (°F)	307.5	340°F		Qualificas ion Test	
			Press. (psig)	46.3	80		Report Joy TA 4081 and Reliance Letter	
	Reliance, Joy Mfg. Co.		Rel. Hum.	100%	100%		4/2/74	
			Radiation	5 10 <sup>7</sup> Rads	1.10 <sup>9</sup>			
			Chem.	NaOH Boric Acid	NaOH Boric Acid			
22	Post-LOCA Containment Mixing Fans		Temp. (°F)	307.5	340°F		Spec 1102-106 FSAR 3.11.2.1	
			Press. (psig)	46.3	80		See Item 21	
	Reliance, Joy Mfg. Co.		Rel. Hum.	100%	100%		Bechtel File 7597-03-M57-16-1	

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Methods	Doc. Ref's	Remarks
			Parameter	Spec.	Qual.			
23	Switches		Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	1.10 <sup>9</sup> Rads		Cleveland Spec. 1102-36, 50, 107	
			Temp. (°F)	307.5	360° F	Sequential	Development ESAR 3 11 2 1	
	NAMCO Model EA-180		Press. (psig)	46.1	70		Co. Report Mechtel File 7597-03-E-59	
			Rel. Hum.	100%	100%		Dated 100,000	
			Radiation	5.10 <sup>7</sup> Rads NaOH Boric Acid	2.04.10 <sup>8</sup> Rads		11/21/77 Mechanical aging to cycles Thermal Aging 200 hrs. @ 200° F	
			Chem.					

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)			Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.			
26	Solenoid Valves		Temp. (°F)	307.5	276	Sequential	Certificate of	Spec 1102-5C Equipment Qualification for Main Valve for Solenoid.
	Henry Pratt Valve		Press. (psig)	46.3	53.5		of	
	ASCO Solenoids		Rel. Hum	100%	100%		Compliance	See Item 24.
			Radiation	5.10 <sup>7</sup> Rads	2.10 <sup>8</sup> Rads			
			Chem.	NaOH Boric Acid				

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Item	Equipment Description	Time Req'd.	ENVIRONMENT (LOCATION)				Qual. Method*	Doc. Ref**	Remarks
			Parameter	Spec.	Qual.				
24	Solenoid Valves		Temp. (°F)	307.5	300°F	Sequential	Certifi-	Spec 1102-107 Jobsite Manufacturers documentation	
	Kerostat Mfg. Company (ASCO Solenoids)		Press. (psig)	6.3	62.1		case of	ent to field with equipment	
			Rel. Hum.	100%	100%		Compliance	Solenoid valves are furnished	
			Radiation	5.10 <sup>7</sup> Rads NaOH	2.10 <sup>8</sup> Rads			as auxiliary equipment for	
			Chem.	Boric Acid				lost valve.	
25	Solenoid Valve		Temp. (°F)	307.5	300°F	Sequential	Certificate	Spec 1102-36 See Item 24	
	Hammell-Dahl Valve		Press. (psig)	46.3	80		of		
	ASCO Solenoids		Rel. Hum.	100%	100%		Compliance		
			Radiation	5.10 <sup>7</sup> Rads NaOH	2.10 <sup>8</sup> Rads				
			Chem.	Boric Acid					

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TO BE WITHHELD FROM PUBLIC DOCUMENTS ROOM

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ENVIRONMENTAL QUALIFICATION OF CLASS IE EQUIPMENT

EQUIPMENT	MANUFACTURER	FSAR REFERENCE FOR QUALIFICATION	DOCUMENTATION OF ENVIRONMENTAL QUALIFICATION PER FSAR (1)	QUALIFICATION REPORTS AVAILABLE AT		QUALIFICATION ENVIRONMENT (2)	QUALIFICATION ENVIRONMENT (3)
				ACCIDENT ENVIRONMENT	AVAILABLE AT		
Pressurizer Pressure Transmitters	Foxboro E11GM (MCA)	3.11.2.2 7.1	FSAR Section 3.11.2.2 (2)	Foxboro/Foxboro & Westinghouse PWRSD	(1&2)		
Pressurizer Level Transmitters	Barton 764	3.11.2.2 7.1, 7.5	NS-CE-1384 (4)	Westinghouse PWRSD/ Westinghouse PWRSD			(3)
Steam Generator Level Transmitters	Barton 764	3.11.2.2 7.1, 7.5	NS-CE-1384 (4)	Westinghouse PWRSD/ Westinghouse PWRSD			(3)
Wide Range Reactor Coolant System Pressure Transmitters	Barton 763	3.11.2.2	NS-CE-1384 (4)	Westinghouse PWRSD/ Westinghouse PWRSD			(3)
Steam Pressure Transmitters	Foxboro E11GM	7.1, 7.5	N/A (6)	Westinghouse PWRSD/ Westinghouse PWRSD			
Steam Flow Transmitters	Foxboro E13DM	3.11.2.2 7.1	NS-CE-1179 (7)	Westinghouse PWRSD/ Westinghouse PWRSD			
Containment Pressure Transmitters	Barton 396/351	7.1, 7.5	N/A (6)	Westinghouse PWRSD/ Westinghouse PWRSD			
Narrow Range Reactor Coolant System RTD's	Rosemount 176KS	3.11.2.2	NS-CE-1179 (7)	Westinghouse PWRSD/ Westinghouse PWRSD			

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ENVIRONMENTAL QUALIFICATION OF CLASS I/E EQUIPMENT

EQUIPMENT	MANUFACTURER	FSAR REFERENCE FOR QUALIFICATION	DOCUMENTATION OF ENVIRONMENTAL QUALIFICATION PER FSAR (1)	QUALIFICATION REPORTS AVAILABLE AT		ACCIDENT ENVIRONMENT (2)	QUALIFICATION ENVIRONMENT (2)
				WESTINGHOUSE PWRSD	WESTINGHOUSE PWRSD		
Wide Range Reactor Coolant System RTD's	Rosemount 176KS	N/A (6)	N/A (6)	Westinghouse PWRSD Westinghouse PWRSD	Westinghouse PWRSD Westinghouse PWRSD		
Stem Mounted Limit Switches	NAMCO D-2400X	N/A (12)	N/A (12)	NAMCO/ Westinghouse PWRSD	Westinghouse PWRSD		
Valve Motor Operators	Limitorque SMB	3.11.2.2 (13)	WCAP 7744 (13) NS-CE-692 NS-CE-756	Limitorque/ Westinghouse PWRSD	Westinghouse PWRSD		
olenoid Operators	ASCO 8300 Series	3.11.2.2 (13)	NS-CE-755 (13)	Seismic-ASCO, Envir- Westinghouse PWRSD/ Westinghouse PWRSD	Westinghouse PWRSD (15)		
Hydrogen Re-combiner	Westinghouse	3.11.2.2	WCAP-7820 Supp. 1-4	Westinghouse PWRSD/ Westinghouse PWRSD	Westinghouse PWRSD		

FOOTNOTES

- (1) WCAP 7817 was identified in Section 1.6 and 3.7.5.2 of the FSAR for Westinghouse Seismic Qualification of Electrical Equipment. The Foxboro EllGM (MCA) 4-20ma instrument is not included in WCAP 7817. However, Foxboro qualified this instrument model and the Foxboro test report is included in WCAP 8541.
- (2) The test reports documenting the environmental testing performed by Foxboro are included in WCAP 8541.
- (3) Westinghouse PWRSD has performed seismic testing on the prototype model of the Barton 763 and 764. Additionally seismic qualification testing is included in the lot testing of the transmitters and has been completed.
- (4) NS-CE-1384 describes the results of the prototype environmental testing performed on the Barton 763 and 764 transmitters.
- (5) Seismic qualification of this equipment was not committed.
- (6) This equipment is located outside containment and no environmental qualification was specified.
- (7) NS-CE-1179 indicated that this instrument had been environmentally tested by Westinghouse and met the established functional requirement. The testing has been documented in WCAP 9157.
- (8) Seismic qualification testing of the Rosemount 176KF RTD is documented in WCAP-8234A.
- (9) Westinghouse PWRSD has performed seismic qualification testing of the Rosemount 176KS RTD.
- (10) WCAP 7817 documents seismic testing of the DB Reactor Trip Switchgear. Westinghouse has certified the qualification of the type DS and the letter of certification is available at Westinghouse PWRSD.
- (11) Table 3.7-4 and FSAR Section 3.9.4.2 indicate that seismic accelerations will be included in the design of the pumps. The analysis performed by the pump vendors is available at Westinghouse PWRSD. No specific commitment is made for seismic qualification of the pump motors.
- (12) No commitment was made in the FSAR for environmental qualification of this equipment.
- (13) Environmental qualification committed only for in-containment ECCS and in-containment isolation valve operators.
- (14) Section 3.9.4.3 references four seismic tests performed by Lockheed for Limitorque. These are 2785-3-4786 (2/6/73); 2786-4786 Issue 2 (9/5/72); 2773C-4773 (5/3/72) and 2785-4-4785 (2/1/73).
- (15) The qualification results are not referenced in the FSAR. The seismic testing was performed by ASCO and a letter summarizing the results has been provided to Westinghouse PWRSD.

ATTACHMENT B

<u>Valve Location Number</u>	<u>Valve Location System or Piping</u>
HV 3103	Pressurizer Sample Lines
HV 3104	Pressurizer Sample Lines
HV 3184	CCW from RCP Thermal Barrier
HV 3376	CTMT Sump Discharge
HV 3443	CCW from Letdown Heat Exchanger
HV 3765	Reactor Loop Sample Line
HV 3766	Accumulator Sample Isolation
HV 3196	CTMT Purge Isolation
HV 2866B	Mini Purge Isolation
HV 2867B	Mini Purge Isolation
HV 3179A	Steam Generator 1A Blowdown Sample Isolation
HV 3179B	Steam Generator 1A Blowdown Sample Isolation
HV 3180A	Steam Generator 1B Blowdown Sample Isolation
HV 3180B	Steam Generator 1B Blowdown Sample Isolation
HV 3181A	Steam Generator 1C Blowdown Sample Isolation
HV 3181B	Steam Generator 1C Blowdown Sample Isolation
HV 3101	Reactor Coolant Hot Leg Sample Line
HV 3102	Reactor Coolant Hot Leg Sample Line
HV 3880	Pressure Steam Space Sample
HV 3881	Pressure Liquid Space Sample
HV 3179C	Steam Generator 1A Blowdown
HV 3180C	Steam Generator 1B Blowdown
HV 3181C	Steam Generator 1C Blowdown
HV 3162	Accumulator Tank 1 Sample
HV 3163	Accumulator Tank 2 Sample

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ATTACHMENT B

<u>Valve Location Number</u>	<u>Valve Location System or Piping</u>
HV 3164	Accumulator Tank 3 Sample
HV 8047	Pressurizer Relief Tank to Waste Processing System
HV 8149A	Chemical and Volume Control System Letdown Heat Exchanger Line
HV 8149B	Chemical and Volume Control System Letdown Heat Exchanger Line
HV 8149C	Chemical and Volume Control System Letdown Heat Exchanger Line
HV 8871	Accumulator Tank Test Line
HV 7126	Reactor Coolant Drain Tank Heat Exchanger Line
HV 3197	CTMT Purge Isolation

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