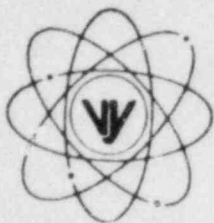


# VERMONT YANKEE NUCLEAR POWER CORPORATION



RD 5, Box 169, Ferry Road, Brattleboro, VT 05301

2.C.2.1  
FVY 83-48

REPLY TO:

ENGINEERING OFFICE

1671 WORCESTER ROAD  
FRAMINGHAM, MASSACHUSETTS 01701  
TELEPHONE 617-872-8100

May 31, 1983

United States Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Office of Nuclear Reactor Regulation  
Mr. D. G. Eisenhut, Director  
Division of Licensing

References: (a) License No. DPR-28 (Docket No. 50-271)  
(b) Letter, USNRC to VYNPC, dated April 11, 1983  
(c) Letter, VYNPC to USNRC, dated September 4, 1981

Subject: Environmental Qualification of Safety-Related Electrical  
Equipment

Dear Sir:

Your letter, Reference (b), requested that we identify electrical equipment important to safety within the scope of 10CFR50.49 that is already qualified, and submit a schedule for the qualification or replacement of the remaining electrical equipment within the scope of the rule.

Our submittal, Reference (c), identified electrical equipment important to safety and provides qualification information for equipment within the scope of the rule. Since the submittal of Reference (c), there have been additions and deletions which affect the previous submittal. Enclosure 1 to this letter provides an updated list to current status within the scope of the final rule, using assumptions consistent with those documented in our original submittal.

Equipment that we consider to be qualified is identified on the list. The remaining equipment on the list is scheduled to be qualified or replaced by the end of our next refueling outage. This schedule assumes no unforeseen difficulties with regard to qualification, procurement, and/or installation of necessary equipment. Requests for schedular extensions for specific equipment, if necessary, will be submitted on a timely basis and justified in accordance with the provisions 10CFR50.49(g). If we determine, as a result of our resolution of qualification status or our assessment of applicable regulatory guidance, that new equipment should be added to the list or existing equipment should be upgraded, we will provide supplements to this response.

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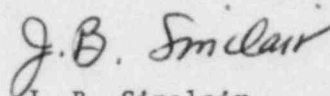
Your letter, Reference (b), also requested that we describe the methods used to identify equipment covered by 10CFR50.49(b)(2). In making this assessment, the elementary diagrams for electrical equipment were reviewed to determine the locations of control equipment. If controls were in a harsh environment, the effects of failure of the controls were reviewed to determine any systems effects on non-safety-related equipment and on equipment important to safety. In addition, the power supplies to all equipment important to safety were reviewed to assure that failures of nonsafety-related equipment could not result in a loss of power supply. The distribution lists for instrumentation power supplies were reviewed to identify all instrumentation providing controls or monitoring, and those located in a harsh environment were reviewed to determine if failure would prevent or degrade the operation of equipment important to safety.

For those items which have been or will be added to the list as a result of our continuing investigation, our program is to proceed with establishing qualification or replacement, or to isolate the equipment from equipment performing safety functions.

We trust that this information is satisfactory; however, should you have any questions or desire additional information, please contact us.

Very truly yours,

VERMONT YANKEE NUCLEAR POWER CORPORATION



J. B. Sinclair  
Licensing Engineer

JBS/ds

Enclosures

VERMONT YANKEE EQUIPMENT LIST  
(Page 1 of 4)

<u>FRC ITEM NUMBER</u>	<u>COMPONENT</u>	<u>MANUFACTURER</u>	<u>MODEL NUMBER</u>	<u>STATUS</u>	<u>WORKSHEET</u>
1	Limit Switch	NAMCO	EA740	Q	ELEC-2
2	Limit Switch	NAMCO	EA74086700 Rev. D	Q	ELEC-1
3	Limit Switch	Micro Switch	OPDAR6809		ELEC-25
4	Position Switch	General Electric	ND		NBVI-5
5	Temperature Switch	Fenwal	170236	Q	HPCI-16, RCIC-17
6	Pressure Switch	Static-O-Ring	6NE3CIAGGMMRTTX10		NBVI-6,7
8	Electric Motor	General Electric	FEJ604011		CS-1
9	Electric Motor	General Electric	BEJ212003		RHR-3
10	Electric Motor	Westinghouse	SO 69F46553		RHR-4
11	Electric Motor	Reliance Electric	ND	Q	SBGT-1
13	Electric Motor	Reliance Electric	ND	Q	HVAC-1,2
14	Electric Motor	Reliance Electric	ND	Q	CAD-6
17	Terminal Block	General Electric	CR151	Q	ELEC-18
18	Terminal Block	Buchanan	0222	Q	ELEC-7
19	Terminal Block	States	Type NT	Q	ELEC-14
20	Terminal Block	States	Type NT	Q	ELEC-15
21	Terminal Block	Buchanan	ND	Q	ELEC-27
22	Terminal Block	States	Type NT	Q	ELEC-28
23	Electrical Penetration	General Electric	NS02	Q	ELEC-5
24	Electrical Penetration	General Electric	NS03	Q	ELEC-5
25	Electrical Penetration	General Electric	NS04	Q	ELEC-5
26	Pressure Transmitter	Rosemount	1152	Q	CAD-4
27	Level Transmitter	Rosemount	1152	Q	PAM-9,16
29	Pressure Transmitter	Rosemount	1152	Q	PAM-11
30	Level Transmitter	Rosemount	1152T280	Q	PAM-5
31	Level Transmitter	General Electric	GEMAC 555		HPCI-18
32	Acoustic Transmitter	Babcock & Wilcox	ND		PAM-2
33	Acoustic Transmitter	Babcock & Wilcox	ND		PAM-3
34	Radiation Detector	Victoreen	877	Q	PAM-4
35	Thermocouple	Conax	Type T 23109029ECSA		PAM-1,14
36	Pressure Transmitter	Rosemount	1152	Q	PAM-8
38	Power Supply	Exide	250 KVA		EPS-3
39	Thermocouple	Conax	2310-9029-ECSA		PAM-6,7
40	Electric Motor	General Electric	BEJ205002		RHR-3
41	Temperature Element	Conax	2310-9029-ECSA		PAM-12

VERMONT YANKEE EQUIPMENT LIST

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<u>FRC ITEM NUMBER</u>	<u>COMPONENT</u>	<u>MANUFACTURER</u>	<u>MODEL NUMBER</u>	<u>STATUS</u>	<u>WORKSHEET</u>
42	Electric Motor	General Electric	BEJ219001		RHR-1
43	Motor-Generator Set	General Electric	ND		EPS-5
44	Motor Control Center	Westinghouse	Type W		EPS-6,11
45	Motor Control Center	ITE	5600	Q	EPS-10
47	Motor Control Center	Westinghouse	Type W		EPS-1,4
48	Electrical Cable, Thermocouple	Lewis	SR/SR		ELEC-3
49	Electrical Cable, Thermocouple	Lewis	PE/PVC		ELEC-30
50	Electrical Cable, Thermocouple	Lewis	PE/PVC	Q	ELEC-29
51	Electrical Cable, Power	Kerite	Type HTK with Type FR Jacket	Q	
52	Electrical Cable, Power	Collyer Insulated Wire	Butyl/Neoprene	Q	ELEC-10
53	Electrical Cable, Power	Cerro Wire and Cable	XLP/Neoprene - Firewall III	Q	ELEC-22
54	Electrical Cable, Power	Cerro Wire and Cable	EPR/Neoprene	Q	ELEC-20
55	Electrical Cable, Power	Rome Cable	XLP/PVC	Q	ELEC-8
56	Electrical Cable, Power	Rome Cable	XLP/PVC	Q	ELEC-6
57	Electrical Cable, Power	Rome Cable	XLP/PVC	Q	ELEC-4
58	Electrical Cable, Control	Rockbestos	Firewall SR	Q	ELEC-16
59	Electrical Cable, Control	Rockbestos	Firewall SR	Q	ELEC-17
60	Electrical Cable, Control	Cerro Wire and Cable	XLPE/Neoprene	Q	ELEC-24
61	Electrical Cable, Control	Rome Cable	XLP/PVC/PVC	Q	ELEC-12
62	Electrical Cable, Control	Rome Cable	XLP/PVC/PVC	Q	ELEC-13
63	Electrical Cable, Control	Rome Cable	XLP/PVC/PVC	Q	ELEC-11
64	Electrical Cable, Control	Lewis	PE/PVC/SHLD	Q	ELEC-23
65	Electrical Cable, Control	Boston Insulated Wire	XLP/Neoprene	Q	ELEC-19
66	Motorized Valve Actuator	Limitorque	SMB, Size 2, with Motor BR		RHR-1,RRS-1
67	Electric Motor	General Electric	BEJ219003		RHR-3
69	Electric Motor	General Electric	FEJ604010		CS-1
70	Motorized Valve Actuator	Limitorque	SMB4T	Q	RHR-14
71	Motorized Valve Actuator	Limitorque	SMB000		RCIC-1



## VERMONT YANKEE EQUIPMENT LIST

(Page 3 of 4)

<u>FRC ITEM NUMBER</u>	<u>COMPONENT</u>	<u>MANUFACTURER</u>	<u>MODEL NUMBER</u>	<u>STATUS</u>	<u>WORKSHEET</u>
72	Motorized Valve Actuator	Limitorque	SMB4, with Class H Insulation	Q	RHR-10,17
73	Motorized Valve Actuator	Limitorque	SMB000		CAD-7
74	Motorized Valve Actuator	Limitorque	SMB000, DC service		RCIC-2
75	Motorized Valve Actuator	Limitorque	SMB000		was RWCU-2
76	Motorized Valve Actuator	Limitorque	SMB, Sizes 000, 2		MS-3,RRS-1
77	Motorized Valve Actuator	Limitorque	SMB2, DC Service, Class B Insu		RHR-6
78	Motorized Valve Actuator	Limitorque	SMB000		CAD-3
80	Motorized Valve Actuator	Limitorque	SMB2	Q	RHR-2
81	Motorized Valve Actuator	Limitorque	SMB1		
83	Motorized Valve Actuator	Limitorque	SMB1	Q	
84	Motorized Valve Actuator	Limitorque	SMB, Sizes 1, 000	Q	RWCU-1,HPCI-1
87	Motorized Valve Actuator	Limitorque	SMB2		RHR-8,9
88	Temperature Switch	Fenwal	170236	Q	RCIC-4
89	Motorized Valve Actuator	Limitorque	SMB, Sizes 0, 2		RHR-11
90	Pressure Switch	Barton	288	Q	PCAC-7
91	Motorized Valve Actuator	Limitorque	SMB, Sizes 0, 00, 2, 3, 4		RHR-7
92	Motorized Valve Actuator	Limitorque	SMB4T	Q	
93	Level Transmitter	Rosemount	1152T280	Q	
94	Pressure Switch	Barton	288	Q	
96	Pressure Switch	Barksdale	B2TA12SS		NVB1-2
99	Solenoid Valve	ASCO	NP831654E	Q	RWCU-2
100	Solenoid Valve	ASCO	2063816F		ADS-1
101	Motorized Valve Actuator	Limitorque	SMB1 with Motor Brake Assembly		HPCI-2
102	Solenoid Valve	ASCO	2068323		PAS-1
103	Solenoid Valve	ASCO	206-380-7F	Q	SBGT-4
105	Solenoid Valve	ASCO	8342A2		
106	Solenoid Valve	ASCO	8316-54E (NP1 Series)	Q	PCAC-5
107	Radiation Monitor	General Electric	194X927G12	Q	PRM-1
108	Solenoid Valve	ASCO	206-380-7F (NP1 Series)	Q	PCAC-2,8
109	Solenoid Valve	Target Rock	75E002	Q	CAD-1, 9, 10, and 11

## VERMONT YANKEE EQUIPMENT LIST

(Page 4 of 4)

<u>FRC ITEM NUMBER</u>	<u>COMPONENT</u>	<u>MANUFACTURER</u>	<u>MODEL NUMBER</u>	<u>STATUS</u>	<u>WORKSHEET</u>
110	Solenoid Valve	Target Rock	75E001	Q	CAD-9
111	Solenoid Valve	Atkomatic	15840VPIMOD		
112	Solenoid Valve	Target Rock	75E002	Q	CAD-2,8
113	Solenoid Valve	Atkomatic	15840VPIMOD		
114	Solenoid Valve	ASCO	NP8323A36V		MS-2
115	Solenoid Valve	ASCO	NP8323A36V		MS-1
118	Temperature Switch	Fenwal	170236	Q	HPC1-3
*	Instrument Power Panel	General Electric	NLAB		
*	Pressure Switch	Static O-Ring	SNN-KK3-S1-CIA-X2		
*	Pressure Switch	Barton	Model 289		
*	Solenoid Valve	ASCO	HPX 8211C13		
*	H <sub>2</sub> /O <sub>2</sub> Analyzer (1)	Teledyne	225 CMA-2	Q	
*	Pressure Transmitter	Rosemount	1152	Q	NBV1-2
*	Battery - 24 volt	C&D	12-KC-9		
*	Battery Charger	C&D	ND		
*	Solenoid Valve	ASCO	THB 8300 D58F		
*	Analog Cabinet	York Electro Panel	ND		

Key

Q = Qualified

\* = Equipment Added

(1) = Replaces Item 37