Docket File
DCS MS-016

Docket No. 50-309

NOV 18 1983

Mr. John H. Garrity, Senior Director
Nuclear Engineering and Licensing
Maine Yankee Atomic Power Company
83 Edison Drive
Augusta, Maine 04336

Dear Mr. Garrity:

SUBJECT: EQUIPMENT QUALIFICATION REVIEW MEETING

The NRC staff is currently implementing a program aimed at completing the final milestone of the equipment environmental qualification review (Multi-plant Action B-60) for Maine Yankee. This final review would consist of a one-day meeting with the staff to be held in Bethesda.

The purpose of this meeting would be to discuss and resolve all outstanding environmental qualification issues between you and the staff for Maine Yankee. The scope of review would include:

- The deficiencies identified in the Franklin Research Center Technical Evaluation Reports;

- Your program for complying with the requirements set forth in item b of 10 CFR 50.49 (EQ rule) which addressed the electrical equipment covered by the rule, and nonsafety-related electrical equipment and post-accident monitoring equipment requiring qualification; and

- Your justification for continued operation, if required.

You would be requested to document the results of these meetings and submit them formally to the NRC. Your submittals would be used by the staff as the basis for preparing final SERs. Your submittals as well as the staff's SERs would be made available in the Public Document Room. Further activity on the Environmental Qualification for the 71 operating plants would be then governed by 10 CFR 50.49 and IE/Regions actions, as necessary, to assure that the schedules set forth in the EQ rule and your commitments have been satisfactorily executed.

Based on recent meetings with the licensees of D. C. Cook, Units 1 and 2, Three Mile Island, Unit 1 and Point Beach, Units 1 and 2, it is anticipated that it would take approximately five hours to cover all the items that would need to be discussed at this meeting. In order to meet this objective, we request that your presentation at the meeting be in accordance with the same agenda followed during the meeting with Point Beach, Units 1 and 2. This agenda is enclosed for your information. Particular attention should be given to the last 11 pages of the agenda that summarize the generic and specific EQ deficiencies.

We request that you contact the NRC Project Manager to set up a tentative date for such a meeting. We note that preliminary review of your submittal dated September 13, 1983 indicates differences in calculated environmental conditions outside containment in comparison with the staff's calculations. It may be appropriate to resolve these issues before holding the more general meeting.

If you have any questions, please contact the NRC Project Manager, K. Heitner.

The information requested in this letter affects fewer than 10 respondents; therefore OMB clearance is not required under P.L. 96-511.

Sincerely,
Original signed by
E.G. Tourigny
for James R. Miller, Chief
Operating Reactors Branch #3
Division of Licensing

Enclosure:
As stated

cc: See next page

DISTRIBUTION:

Docket File	PMKreutzer
NRC PDR	KHeitner
L PDR	Gray File
NSIC	JCalvo
ORB#3 Rdg	DEisenhut
OELD	ACRS-10
EJordan	JTaylor

ORB#3:DL	ORB#3:DL	ORAB	ORB#3:DL
PMKreutzer	KHeitner/pn	JCalvo	JRMiller
11/16/83	11/16/83	11/17/83	11/18/83

cc: Charles E. Monty, President
Maine Yankee Atomic Power Company
Edison Drive
Augusta, Maine 04336

Mr. Charles B. Brinkman
Manager - Washington Nuclear Operations
Combustion Engineering, Inc.
7910 Woodmont Avenue
Bethesda, Maryland 20814

John A. Ritsher, Esq.
Ropes & Gray
225 Franklin Street
Boston, Massachusetts 02110

State Planning Officer
Executive Department
189 State Street
Augusta, Maine 04330

Mr. E. C. Wood, Plant Manager
Maine Yankee Atomic Power Company
P. O. Box 3270
Wiscasset, Maine 04578

Regional Administrator
U. S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

First Selectman of Wiscasset
Municipal Building
U. S. Route 1
Wiscasset, Maine 04578

Mr. Cornelius F. Holden
Resident Inspector
c/o U. S. Nuclear Regulatory
Commission
P. O. Box E
Wiscasset, Maine 04578

Mr. P. L. Anderson
Project Manager
Yankee Atomic Electric Company
1671 Worcester Road
Framingham, Massachusetts 01701

U. S. Environmental Protection Agency
Region I Office
ATTN: Reg. Radiation Representative
JFK Federal Building
Boston, Massachusetts 02203

Mr. Rufus E. Brown
Deputy Attorney General
State of Maine
Augusta, Maine 04330

David Santee Miller, Esq.
Perkins Road
Boothbay Harbor, ME 04538

Enclosure

Wisconsin Electric POWER COMPANY
231 W. MICHIGAN, P.O. BOX 2046, MILWAUKEE, WI 53201

October 10, 1983

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D.C. 20555

Attention: Mr. J. R. Miller, Chief
Operating Reactors, Branch 3

Gentlemen:

DOCKET NOS. 50-266 AND 50-301
RESOLUTION OF SAFETY EVALUATION REPORTS
FOR ENVIRONMENTAL QUALIFICATION OF
SAFETY-RELATED ELECTRICAL EQUIPMENT
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

On December 27, 1982, Wisconsin Electric received the Safety Evaluation Reports (SERs) regarding the Environmental Qualification of Safety-Related Electrical Equipment at Point Beach Nuclear Plant, Units 1 and 2 (PBNP). The SERs each contained a Technical Evaluation Report (TER), written by Franklin Research Center under contract to the NRC, which noted a number of environmental qualification documentation deficiencies for safety-related electrical equipment at PBNP. In our letter to you dated February 18, 1983, we provided justification for continued operation until the documentation deficiencies could be officially resolved and stated our intention to request a meeting with your Staff to discuss additional documentation assembled to resolve the deficiencies. We have recently been informed by our NRC Project Manager that such a meeting has been scheduled for October 13, 1983. Enclosure 1 to this letter is an agenda for this meeting which includes a discussion of all of the deficiencies noted in the TERs. It is our understanding that Wisconsin Electric would subsequently confirm in writing the resolutions reached at the meeting for each of the deficiencies and your Staff would then issue a supplemental SER to officially resolve the deficiencies on the PBNP dockets.

In a related matter, Enclosure 2 to this letter is a revised "List of Electric Equipment Important to Safety to be Environmentally Qualified" for PBNP. This list has been revised from the list submitted as Enclosure 1 to our May 20, 1983 letter to Mr. H. R. Denton regarding "Environmental Qualification of Electric Equipment Important to Safety Within the Scope of 10 CFR 50.49." The revision corrects a few minor typographical errors and adds the Crosby lift indicating switch assemblies planned for installation on the pressurizer code safety valves for both PBNP units. The lift

A049
1/1

indicating switch assemblies were inadvertently excluded from the original list.

The Crosby lift indicating switch assemblies have not yet been environmentally qualified due to test difficulties in the initial qualification program. Crosby is now beginning a second qualification test program. Wisconsin Electric does not intend to install the Crosby switch assemblies on the PBNP pressurizer code safety valves until the qualification is successfully completed. The Crosby switch assemblies are now planned for installation on PBNP during the outages currently planned to end on November 2, 1984 (Unit 2) and May 24, 1985 (Unit 1). Paragraph (g) of NRC rule 10 CFR 50.49 imposed an environmental qualification deadline for this equipment of "by the end of the second refueling outage after March 31, 1982" (i.e., June 30, 1983 for PBNP Unit 2 and March 30, 1984 for PBNP Unit 1). The rule also states, however, that "the Director of the Office of Nuclear Reactor Regulatory [sic] may grant requests for extensions of this deadline to a date no later than November 30, 1985, for specific pieces of equipment if these requests ... demonstrate good cause for the extension, such as procurement lead time, test complications, and installation problems." Therefore, an extension of the environmental qualification deadline imposed by 10 CFR 50.49 is requested until May 24, 1985 for the Crosby lift indicating switch assemblies and associated cables, splices, connectors, etc. to be installed on the pressurizer code safety valves at PBNP. This date is the scheduled end of the next refueling outage for PBNP, Unit 1, subsequent to the expected completion date of the second Crosby test program.

We would be pleased to answer any questions you may have regarding this information or the request for extension of the environmental qualification deadline.

Very truly yours,

Sol Burstein

Executive Vice President

Enclosures
Copy to NRC Resident Inspector

ENCLOSURE 1

AGENDA FOR
WISCONSIN ELECTRIC MEETING WITH NRC STAFF TO
RESOLVE ENVIRONMENTAL QUALIFICATION SER DEFICIENCIES

1. Generic EQ Deficiencies
2. Specific Equipment EQ Deficiencies

   Pressure, D/P, and Level Transmitters

   Solenoid Valves for Air-Operated Valves

   Motors (including splices and bearing/lubricant)

   Temperature Measurement Devices

   Electro-Pneumatic (I/P) Transducers

   Electrical Distribution Devices

   Limit Switches for Air-Operated Valves/Acoustical Monitors

   Motor Operated Valves (including lubricants)

3. May 20, 1983 Response to 10 CFR 50.49 and Extension Requests
4. September 1, 1983 Response to Regulatory Guide 1.97

ENCLOSURE 2

LIST OF ELECTRIC EQUIPMENT IMPORTANT
TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED
POINT BEACH NUCLEAR PLANT, UNIT 1 AND 2

(October 10, 1983)

Notes:

1. A request for an extension of the environmental qualification deadline imposed by 10 CFR 50.49(g) (i.e., "the end of the second refueling cutage after March 31, 1982") was requested for the final environmental qualification documentation only (not installation or operation) of this equipment in our letter to Mr. H. R. Denton dated May 4, 1983. The end of the second refueling outage after March 31, 1982 was June 30, 1983 for PBNP, Unit 2, and is expected to be March 30, 1984 for PBNP, Unit 1. The requested deadline extension was granted until March 30, 1984 by Mr. H. R. Denton's letter to Mr. C. W. Fay dated July 22, 1983.

2. Some equipment items were listed in NRC Qualification Category II.A ("Equipment Qualification Not Established") or II.C ("Equipment Satisfies All Requirements Except Qualified Life or Replacement Schedule Justified") in the Technical Evaluation Report (TER) attached to the PBNP Safety Evaluation Report dated December 22, 1982 regarding "Environmental Qualification of Safety Related Electrical Equipment." A meeting has been scheduled with the NRC Staff on October 13, 1983 to resolve the documentation questions raised in the TER. Wisconsin Electric considers this equipment to be environmentally qualified in accordance with 10 CFR 50.49 (i.e., DOR Guidelines).

3. This equipment is within the scope of 10 CFR 50.49(b)(3) (i.e., "Certain post-accident monitoring equipment"). An extension of the environmental qualification deadline imposed by 10 CFR 50.49(g) (i.e., "the end of the second refueling outage after March 31, 1982") was requested until November 1, 1984 in our letter to Mr. H. R. Denton dated May 4, 1983. The requested deadline extension was granted until November 1, 1984 by Mr. H. R. Denton's letter to Mr. C. W. Fay dated July 22, 1983.

4. A request for extension of the environmental qualification deadline was requested for this equipment in accordance with 10 CFR 50.49(g) by our letter to Mr. H. R. Denton dated May 20, 1983. The requested deadline extension was granted until November 1, 1984 by Mr. H. R. Denton's letter to Mr. C. W. Fay dated July 22, 1983.

5. A request for extension of the environmental qualification deadline has been requested for this equipment until May 24, 1985 by this letter in accordance with 10 CFR 50.49(g).

6. The "installation operation" date is the date by which the equipment was turned over the operations group for operation. The final official turnover may not be completed by the specified date due to the lack of certain formal quality assurance documentation required. The final operation configuration may also not be complete due to various power supply, instrumentation loop, and control board modifications being implemented at PBNP.

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: I. Safety Injection

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1-P15A&B 2-P15A&B	24	a. Westinghouse Motors - High-Head Safety Injection Pumps	Original Equipment	6/30/83(2)
		None	b. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		41	c. Power Cables - Okonite Okonex-Insulated and Okoprene-Jacketed 5000 Volt Power		
		50	d. Motor & Pump Bearing Lubricant - American Oil Co. No. 68 Oil or Equivalent		
2.	1&2-SI878 B&D	63	a. Limitorque Valve Motor Operators - High-Head Cold Leg Injection Line Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cable - Kerite 600 Volt Power Cable		
		43	c. Control Cable - Kerite 600 Volt Control Cable		
		None	d. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		36	e. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	f. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
		54	g. Main Gear Case Lubricant - American Oil Co. Amolith #1 EP or AMDEX #2 EP Greases		
		56	h. Geared Limit Switch Assembly Lubricant - Mobil Oil Co. No. 28 Grease		
3.	1&2-SI878 A&C	62	a. Limitorque Valve Motor Operators - High-Head Reactor Vessel Injection Line Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cable (see Item 2.b)		
		43	c. Control Cable (see Item 2.c)		
		None	d. Motor-to-Lead Splices (see Item 2.d)		
		36	e. Electrical Penetration Splices (see Item 2.e)		
		35	f. Electrical Penetration Assembly (see Item 2.f)		
		54	g. Main Gear Case Lubricant (see Item 2.g)		
		56	h. Geared Limit Switch Assembly Lubricant (see Item 2.h)		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: I. Safety Injection

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
4.	1&2-SI852 A&B	63	a. Limitorque Valve Motor Operators - Low-Head Reactor Vessel Injection Line Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cable (see Item 2.b)		
		43	c. Control Cable (see Item 2.c)		
		None	d. Motor-to-Lead Splices (see Item 2.d)		
		36	e. Electrical Penetration Splices (see Item 2.e)		
		35	f. Electrical Penetration Assembly (see Item 2.f)		
		54	g. Main Gear Case Lubricant (see Item 2.g)		
		56	h. Geared Limit Switch Assembly Lubricant (see Item 2.h)		
5.	1&2-SI851 A&B	66 (Unit 1) 70 (Unit 2)	a. Limitorque Valve Motor Operators - Low-Head Safety Injection Suction from Containment Sump B Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cable (see Item 2.b)		
		39	c. Control Cable - Rome 600 Volt Control Cable		
		None	d. Motor-to-Lead Splices (see Item 2.d)		
		54	e. Main Gear Case Lubricant (see Item 2.g)		
		56	f. Geared Limit Switch Assembly Lubricant (see Item 2.h)		
6.	1&2-PT922 & 923	1	a. Foxboro Pressure Transmitters - Safety Injection Pump Discharge Pressure	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		None	b. Cable Splices - Raychem Type WCSF-N		
		40	c. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Twisted Shielded Pair		
7.	1&2-FT924 & 925	4	a. Foxboro Differential Pressure Transmitters - High-Head Safety Injection Line Flow	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair		
8.	1&2-FT928	3	a. Foxboro Differential Pressure Transmitters - Low-Head Safety Injection Line (Train B) Flow	6/30/83 (Unit 1) 3/30/84	3/30/84(1)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: I. Safety Injection

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
9.	1&2-PT936, 937, 940, & 941	None	a. Foxboro Pressure Transmitters - Safety Injection Accumulator Pressure	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(3)
		42	b. Instrumentation Cable - Okonite Okotherm-Insulated and Okoseal-Jacketed Twisted, Shielded Pair or Okonite PVC-Insulated and Jacketed Twisted, Shielded Pair (1-PT937 only)		
		36	c. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	d. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
10.	1&2-LT960 & 961	5	a. Gems Delaval Level Transmitter - Containment Sump B Water Level	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		None	b. Conax Electrical Conductor Seal Assembly (ECSA)		
		None	c. ECSA-to-Cable Splice - Raychem Type WCSF-N		
		None	d. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Triple		
		None	e. Cable-to-Penetration Splices - Raychem Type WCSF-N		
		None	f. Electrical Penetration Assembly - Westinghouse Modular Penetrations		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: II. Containment Spray

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1-P14A&B 2-P14A&B	25	a. Westinghouse Motors - Containment Spray Pumps	Original Equipment	6/30/83(2)
		None	b. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		43	c. Power Cables - Kerite 600 Volt Power		
		55	d. Motor Bearing Lubricant - American Oil Co. Amolith #2 Grease or Equivalent		
		52	e. Pump Bearing Lubricant - American Oil Co. Rykon Industrial No. 32 Oil		
2.	1&2SI860 A,B,C,& D	64	a. Limitorque Valve Motor Operators - Containment Spray Pump Discharge Line Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cables - Kerite 600 Volt Power		
		39	c. Control Cables - Rome 600 Volt Control		
		None	d. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		54	e. Main Gear Case Lubricant - American Oil Co. Amolith #1 EP or Amdex #2 EP Greases		
		56	f. Geared Limit Switch Assembly Lubricant - Mobil Oil Co. No. 28 Grease		
3.	1&2SI871 A&B	64	a. Limitorque Valve Motor Operators - Containment Spray Pump Suction from RHR Heat Exchange Outlet Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cables (see Item 2.b)		
		39	c. Control Cables (see Item 2.c)		
		None	d. Motor-to-Lead Splices (see Item 2.d)		
		54	e. Main Gear Case Lubricant (see Item 2.f)		
		56	f. Geared Limit Switch Assembly Lubricant (see Item 2.f)		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: II. Containment Spray

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
4.	1&2-SI836 A&B	33	a. Fisher Electro-Pneumatic (I/P) Transducers - Containment Spray Additive Tank Outlet Isolation Valve Air Operators	6/30/83 (Unit 2) 3/30/84 (Unit 1)	6/30/83 (Unit 3/30/84 (Unit
		57	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		39	e. Control Cable - Rome 600 Volt Control		
		None	f. I/P Instrumentation Cable - Okonite PVC-Insulated and Jacketed Twisted, Shielded Pair		
5.	1&2-LT931	2	a. Foxboro Differential Pressure Transmitter - Containment Spray Additive Tank Water Level	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair		
6.	1&2-FT962 & 963	None	a. Foxboro Differential Pressure Transmitter - Containment Spray Pump Discharge Line Flow	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted Shielded Pair		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: III. Auxiliary Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1-P10A&B 2-P10A&B	27	a. Westinghouse Motors - Residual Heat Removal (Low-Head Safety Injection) Pumps	Original Equipment	6/30/83(2)
		None	b. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		43	c. Power Cables - Kerite 600 Volt Power		
		55	d. Motor Bearing Lubricant - American Oil Co. Amolith # 2 Grease or Equivalent		
		52	e. Pump Bearing Lubricant - American Oil Co. Rykon Industrial No. 32 Oil		
2.	1-P11A&B 2-P11A&B	26	a. Westinghouse Motors - Component Cooling Water Pumps	Original Equipment	6/30/83(2)
		None	b. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		43	c. Power Cables - Kerite 600 Volt Power		
		55	d. Motor Bearing Lubricant - American Oil Co. Amolith #2 Grease or Equivalent		
		51	e. Pump Bearing Lubricant - American Oil Co. Industrial No. 46 Oil		
3.	1&2-AC738 A&B	66	a. Limitorque Valve Motor Operators - Component Cooling Water to RHR Heat Exchanger Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cable - Kerite 600 Volt Power		
		39	c. Control Cable - Rome 600 Volt Control		
		None	d. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		54	e. Main Gear Case Lubricant - American Oil Co. Amolith #1 EP or AMDEX #2 EP Greases		
		56	f. Geared Limit Switch Assembly Lubricant - Mobil Oil Co. No. 28 Grease		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: III. Auxiliary Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
4.	1&2-AC624, 625, & 626	33	a. Fisher Electro-Pneumatic (I/P) Transducers - Residual Heat Removal Heat Exchanger Discharge (624 & 625) and Bypass (626) Line Throttle Valves	6/30/83(Unit 2) 3/30/84 (Unit 1)	6/30/83 (Unit 2) 3/30/84 (Unit 1)
		57	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		39	e. Control Cable - Rome 600 Volt Control		
		None	f. I/P Instrumentation Cable - Okonite PVC-Insulated and Jacketed Twisted, Shielded Pair		
5.	1&2-FT626	7	a. Foxboro Differential Pressure Transmitters - Residual Heat Removal (Low-Head Safety - Injection-Train A) Discharge Line Flow	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	g. Cable Splices - Raychem Type WCSF-N		
		40	c. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7, Twisted, Shielded Pair		
6.	1&2-PT628 & 629	8	a. Foxboro Pressure Transmitters - Residual Heat Removal (Low-Head Safety Injection) Pump Discharge Pressure	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	b. Cable Splices - Raychem Type WCSF-N		
		40	c. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Twisted, Shielded Pair (Unit 1) or Okonite PVC-Insulated and Jacketed Twisted, Shielded Pair (Unit 2)		
7.	1&2-FT619	6	a. Foxboro Differential Pressure Transmitters - Component Cooling Water Discharge Line Flow	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	b. Cable Splices - Raychem Type WCSF-N		
			c. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Twisted, Shielded Pair		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: III. Auxiliary Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
8.	1&2-TE621	30	a. Conax Resistance Temperature Detectors - Component Cooling Heat Exchange Outlet Line Temperature	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	b. Cable Splices - Raychem Type WCSF-N		
		40	c. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Double Twisted, Shielded Pair		
9.	1&2-TE622 & 623	30	a. Conax Resistance Temperature Detectors - Residual Heat Removal Heat Exchanger Outlet Line Temperature	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		None	b. Cable Splices - Raychem Type WCSF-N		
		None	c. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Triple		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: IV. Auxiliary Feedwater

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-FT4036 & 4037	None	a. Foxboro Differential Pressure Transmitters - Auxiliary Feedwater to Steam Generator Line Flow b. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Twisted, Shielded Pair	7/5/81	3/30/84(3)
2.	LT4038, 4039, 4040, & 4041	17	a. Foxboro Differential Pressure Transmitters - Condensate Storage Tank Water Level b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)(3)

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: V. Reactor Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.*	1&2-RC515 & 516	61	a. Limitorque Valve Motor Operators - Pressurizer Power Operated Relief Valve Blocking Valves	Original Equipment	6/30/83(2)
		43	b. Power Cables - Kerite 600 Volt Power		
		39 (43)	c. Control Cables - Rome 600 Volt Control (Kerite for 1-RC515)		
		None	d. Motor-to-Lead Splices - Scotch-#70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		36	e. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	f. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetrations		
		54	g. Main Gear Case Lubricant - American Oil Co. Amolith #1 EP or AMDEX #2 EP Greases		
		56	h. Geared Limit Switch Assembly Lubricant- Mobil Oil Co. No. 28 Grease		
2.*	1&2-RC430 & 431C	19	a. ASCO Solenoid Valves - Pressurizer Power Operated Relief Valve Air Operator	12/10/82 (Unit 1) 6/30/83 (Unit 2)	6/30/83
			b. NAMCO Limit Switches- Valve Position Indication		
		58	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		43	e. Control Cable - Kerite 600 Volt Control		
		36	f. Electrical Penetration Splices (see Item 1.e)		
		35	g. Electrical Penetration Assembly (see Item 1.f)		
3.*	1&2-RC 570A&B 575A&B, &	None	a. Target Rock Solenoid Valves - Reactor Coolant System Gas Vent Line Isolation Valves	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84
		None	b. Conax Electrical Conductor Seal Assemblies (ECSAs)		

* This equipment is not safety-related. Its failure or spurious operation can not prevent the achievement or maintenance of safe shutdown or mitigation of design-basis accidents. This equipment is not within the scope of 10 CFR 50.49(b) but is listed here for completeness.

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: V. Reactor Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
	580A&B	None	c. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		None	d. Control Cable - Anaconda, Rockbestos, or Brand Rex 600 Volt Control		
		None	e. Electrical Penetration Splices - Raychem Type WCSF-N		
		None	f. Electrical Penetration Assembly-Westinghouse Modular Penetrations		
4.	1&2-PT420, 420A, & 420B	13	a. Foxboro Pressure Transmitters - Reactor Coolant System Wide-Range Pressure	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)(3)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted Shielded Pair		
		None	c. Electrical Penetratiion Splices - Raychem Type WCSF-N		
		None	d. Electrical Penetration Assembly - Westinghouse Modular Penetration		
5.	1&2-LT 426, 427, 428, & 433	11	a. Foxboro Differential Pressure Transmitters - Pressurizer Water Level	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
		42	b. Instrumentation Cable - Okonite Okotherm - Insulated and Okoseal-Jacketed Twisted, Shielded Pair		
		36	c. Electrical Penetration Splices (see Item 1.e)		
		35	d. Electrical Penetration Assembly (see Item 1.f)		
6.	1&2-PT 429, 430, 431, & 449	10	a. Foxboro Pressure Transmitters - Pressurizer Narrow-Range Pressure	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		42	b. Instrumentation Cable (see Item 5.b)		
		36	c. Electrical Penetration Splices (see Item 1.e)		
		35	d. Electrical Penetration Assembly (see Item 1.f)		
7.	1&2-LT 494 & 495	None	a. Foxboro Differential Pressure Transmitters - Reactor Vessel Wide-Range Water Level	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(3)
		None	b. Instrumentation Cable (see Item 4.b)		
		None	c. Electrical Penetration Splices (see Item 4.c)		
		None	d. Electrical Penetration Assembly (see Item 4.d)		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: V. Reactor Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
8.	1&2-LT 496 & 497	None	a. Foxboro Differential Pressure Transmitters - Reactor Vessel Narrow-Range Water Level	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(3)
		None	b. Instrumentation Cable (see Item 4.b)		
		None	c. Electrical Penetration Splices (see Item 4.c)		
		None	d. Electrical Penetration Assembly (see Item 4.d)		
9.	1&2-PT498	None	a. Foxboro Pressure Transmitters - Reactor Coolant System Gas Vent Discharge Line Pressure	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(3)
		None	b. Instrumentation Cable (see Item 4.b)		
		None	c. Electrical Penetration Splices (see Item 4.c)		
		None	d. Electrical Penetration Assembly (see (item 4.d)		
10.	1&2-TE 499 thru 502, 506 thru 509 and 1-TE 503 & 510	None	a. Conax Thermocouples (T/C) - Reactor Vessel Level Indicating System Reference Leg Temperature	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. T/C-to-Cable Splices (see Item 4.c)		
		None	c. T/C Extension Cable - Anaconda Type K T/C Extension Twisted, Shielded Pair		
		None	d. Electrical Penetration Splices (see Item 4.c)		
		None	e. Electrical Penetration Assembly (see Item 4.d)		
11.	1&2-TE1 thru 39	31	a. Control Products Corp. Thermocouples (T/Cs) Incore (Core Exit) Thermocouples	11/1/84 (Unit 2) 3/30/84 (Unit 1)	11/1/84(3)
		47	b. Veam Division of Litton T/C Connectors		
		37	c. Instrumentation Cable (see Item 10.c)		
		None	d. Electrical Penetration Splices (see Item 4.c)		
		None	e. Electrical Penetration Assembly (see Item 4.d)		
12.	1&2-TE 450A-D & 451A-D	32 (Unit 1) 32 and 69 (Unit 2)	a. Conax Resistance Temperature Detectors (RTDs)- Reactor Coolant System Hot & Cold Leg Loop Temp.	3/30/84 (Unit 1)* 11/1/84 (Unit 2)*	11/1/84(1)(3)
			b. RTD-to-Cable Splices (see Item 4.c)		
			c. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Triple		
			c. Electrical Penetration Splices (see Item 4.c)		
			e. Electrical Penetration Assembly (see Item 4.d)		

* One element of each dual element RTD will be operational through existing cables and instrumentation racks by 12/10/82 (Unit 1) and 6/30/83 (Unit 2).

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: V. Reactor Coolant

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
13.	1&2-PCV434 & 435	None	a. Crosby Lift Indicating Switch Assemblies - Reactor Coolant System Pressurizer Code Safety Valves b. Switch Assembly Pigtail-to-Cable Splices (see Item 4.c) c. Control Cable - Anaconda, Rockbestos, or Brand Rex 600 Volt Control d. Electrical Penetration Splices (see Item 4.c) e. Electrical Penetration Assembly (see Item 4.d)	11/1/84 (Unit 2) 5/24/85 (Unit 1)	5/24/85(5)

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: VI. Chemical & Volume Control

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-CV1296	22	a. ASCO Solenoid Valves - Auxiliary Charging Line Isolation Valve Air Operators	12/10/82 (Unit 1) 6/30/83 (Unit 2)	6/30/83
		60	b. NAMCO LImit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSA's) for NAMCO LImit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		43	e. Control Cable - Kerite 600 Volt Control		
		36	f. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	g. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
2.	1&2CV313A	None	a. ASCO Solenoid Valves - Reactor Coolant Pump Seal Water Return Line Isolation Valve Air Operators	6/30/83 (Unit 2) 3/30/84 (Unit 1)	6/30/83 (Unit 2 3/30/84 (Unit 1
		None	b. NAMCO Limit Switches (see Item 1.b)		
		None	c. Conax ECSA (see Item 1.c)		
		None	d. ECSA-to-Cable Splices (see Item 1.d)		
		None	e. Control Cables - Anaconda, Rockbestos, or Brand Rex 600 Volt Control		
		None	f. Electrical Penetration Splices (see Item 1.d)		
		None	g. Electrical Penetration Assembly - Westinghouse Modular Penetration		
3.	1&2-CV371A	None	a. ASCO Solenoid Valves - Reactor Coolant Letdown Line Isolation Valve Air Operators	6/30/83 (Unit 2) 3/30/84 (Unit 1)	6/30/83 (Unit 2 3/30/84 (Unit 1
		None	b. NAMCO Limit Switches (see Item 1.b)		
		None	c. Conax ECSA (see Item 1.c)		
		None	d. ECSA-to-Cable Splices (see Item 1.d)		
		None	e. Control Cables - (see Item 2.e)		
		None	f. Electrical Penetration Splices (see Item 1.d)		
		None	g. Electrical Penetration Assembly - Westinghouse Modular Penetration		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: VI. Chemical & Volume Control

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
4.	1&2-LT106, 172, & 190	12	a. Foxboro Differential Pressure Transmitters - Boric Acid Storage Tank Water Level	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(1)
	LT102, 171, & 189	None 40	b. Cable Splices - Raychem Type WCSF-N c. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Twisted, Shielded Pair or Okonite PVC-Insulated and Jacketed Twisted, Sheilded Pair (2-LT106 & 190)		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: VII. Heating & Ventilation

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-W1A1 B1, C1, & D1	28	a. Westinghouse Motors - Containment Air Recirculation Emergency Cooling Fans	Original Equipment	6/30/83(2)
		29	b. Motor-to-Lead Splices - Westinghouse Drawing No. 206C391		
		43	c. Power Cable - Kerite 600 Volt Power		
		53	d. Motor and Fan Bearing Lubricant - Chevron Style SRI Grease		
		None	e. Fan Bearing Housing Labyrinth Seal Lubricant - Westinghouse Style No. M-53701TT (E. I. Dupont de Nemours & Co., Inc. Krytox 240 AC Florinated) Grease		
		36	f. Electrical Penetration Splices - Raychem Type WCSF-N		
		35	g. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister or Westinghouse Modular Penetration		
2.	1&2-HV 3213 & 3245	20	a. ASCO Solenoid Valves - Containment Purge Supply and Exhaust Line Isolation Valve Air Operators	12/10/82 (Unit 1) 6/30/83 (Unit 2)	6/30/83
		60	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assembly (ECSA) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		43	e. Control Cables - Kerite 600 Volt Control		
		36	f. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	g. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
3.	1&2-HV 3200C	21	a. ASCO Solenoid Valves - Containment Atmosphere Sampling Line Isolation Valve Operators	12/10/82 (Unit 1) 6/30/83 (Unit 2)	6/30/83
		60	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assembly (ECSA) for NAMCO Limit Switches		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: VII. Heating & Ventilation

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
		None	d. ECSA-to-Cable Splices (see Item 2.d)		
		39	e Control Cables - Kerite 600 Volt Control		
		36	f. Electrical Penetration Splices (see Item 2.f)		
		35	g. Electrical Penetration Assembly (see Item 2.g)		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: VIII. Main & Reheat Steam

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-MS 2019 & 2020	65	a. Limitorque Valve Motor Operator - Steam Supply to Turbine - Driven Auxiliary Feedwater Pump Isolation Valves	Original Equipment	6/30/83(2)
		43	b. Power Cables - Kerite 600 Volt Power		
		39	c. Control Cables - Rome 600 Volt Control		
		None	c. Motor-to-Lead Splices - Scotch #70 Silicon Rubber Tape Insulation with Vinyl Tape Overall or Equivalent		
		54	e. Main Gear Case Lubricant - American Oil Co. Amolith #1 EP or AMDEX #2 EP Greases		
		56	f. Geared Limit Switch Assembly Lubricant-Mobil Oil Co. No. 28 Grease		
2.	1&2-FT 464, 465, 474, & 475	15	a. Foxboro Differential Pressure Transmitters - Main Steam Line Flow	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		42	b. Instrumentation Cable - Okonite, Okotherm-Insulated, Okoseal-Jacketed Twisted, Shielded Pair		
		36	c. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	d. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
3.	1&2PT 468, 469, 482, 478,	16	a. Foxboro Pressure Transmitter - Main Steam Line (Steam Generator) Pressure	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		42	b. Instrumentation Cable - Same as Item 2.b or Okonite PVC-Insulated and Jacketed Twisted, Shielded Pair (2-PT478, 479, & 483)		
	479, & 483	None	c. Additional Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair		
		None	d. Cable-to-Cable Splices - Raychem Type WCSF-N		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: IX. Main Feedwater

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-CV 466 & 476	None	a. ASCO Solenoid Valves - Main Feedwater Regulating Valve Air Operator Trip on Safety Injection	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(4)
		None	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAS) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		39	e. Control Cable -Rome 600 Volt Control		
2.	1&2-CV 480 & 481	None	a. ASCO Solenoid Valves - Main Feedwater Regulating Bypass Valve Air Operator Trip on Safety Injection	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(4)
		None	b. NAMCO Limit Switches (see Item 1.b)		
		None	c. Conax ECSA (see Item 1.c)		
		None	d. ECSA-to-Cable Splices (see Item 1.d)		
		39	e. Control Cable (see Item 1.e)		
3.	1&2-LT461, 462, 463, 471, 472, & 473	14	a. Foxboro Differential Pressure Transmitters - Steam Generator Narrow-Range Water Level	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		42	b. Instrumentation Cable - Okonite Okotherm-Insulated, Okoseal-Jacketed Twisted, Shielded Pair		
		36	c. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	d. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
4.	1&2-LT 460A&B, 470A&B	14	a. Foxboro Differential Pressure Transmitter - Steam Generator Wide-Range Water Level	12/10/82 (Unit 1 - one temporary channel) 3/30/84 (Unit 1 - final configuration) 6/30/83 (Unit 2 - one temporary channel) 11/1/84 (Unit 2 - final configuration)	3/30/84(1)(3)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair		
		None	c. Electrical Penetration Splices - Raychem Type WCSF-N		
		None	d. Electrical Penetration Assembly - Westinghouse Modular Penetration		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: X. Electrical

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC IER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-B32 & 42	43	a. Power Cables to Safeguards Motor Control Center - Kerite 600 Volt Power	Original Equipment	6/30/83
		39	b. Control Cables to Safeguards Motor Control Centers - Rome 600 Volt Control		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: XI. Containment

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-PT 945 thru 950	9	a. Foxboro Pressure Transmitters - Containment Narrow-Range and Intermediate-Range Pressure	12/10/82 (Unit 1) 6/30/83 (Unit 2)	3/30/84(1)
		40	b. Instrumentation Cable - Boston Insulated Wire & Cable Co. Bostrad 7 Twisted, Shielded Pair		
2.	1&2-PT968 & 969	None	a. Foxboro Pressure Transmitters - Containment Wide- Range Pressure	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(3)
		None	b. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Pair		
3.	1&2-HA969 thru 967	None	a. Exo-Sensor Hydrogen Analyzers - Containment Hydrogen Concentration	6/30/83 (Unit 2) 3/30/84 (Unit 1)	11/1/84(3)
		None	b. Instrumentation Cable (see Item 2.b or Equivalent)		
		None	c. Electrical Penetration Splices - Raychem Type WCSF-N		
		None	d. Electrical Penetration Assembly - Westinghouse Modular Penetrations		
4.	1&2-TE3292 & 3293	None	a. Conax Resistance Temperature Detectors (RTDs) - Containment Atmosphere Temperature	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. RTD-to-Cable Splices - Raychem Type WCSF-N		
		None	c. Instrumentation Cable - Anaconda, Rockbestos, or Brand Rex Twisted, Shielded Triple		
		None	d. Electrical Penetration Splices - Raychem Type WCSF-N		
		None	e. Electrical Penetration Assembly - Westinghouse Modular Penetrations		
5.	1&2-TE3294 & 3295	None	a. Conax Resistance Temperature Detectors (RTDs) - Containment Sump B Water Temperature	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. RTD-to-Cable Splices (see Item 4.b)		
		None	c. Instrumentation Cable (see Item 4.c)		
		None	d. Electrical Penetration Splices (see Item 4.d)		
		None	e. Electrical Penetration Assembly (see Item 4.e)		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: XI. Containment

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
6.	1&2-RE126, 127, & 128	None	a. General Atomic Radiation Monitor - Containment High-Range Gamma Radiation	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. Monitor-to-Cable Splices - Amphenol Coaxial Connectors/Raychem Type WCSF-N		
		None	c. Instrumentation Cable - Rockbestos Coaxial		
		None	d. Electrical Penetration Splices - Amphenol Coaxial Connectors/Raychem Type WCSF-N		
		None	e. Electrical Penetration Assembly - Westinghouse Modular Penetration		
7.	1&2-LT958 & 959	None	a. Gems Delaval Level Transmitters - Containment Sump A Water Level	6/30/83 (Unit 2) 3/30/84 (Unit 1)	3/30/84(3)
		None	b. Conax Electrical Conductor Seal Assemblies (ECSAs) for Transmitter		
		None	c. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		None	d. Instrumentation Cable (see Item 4.c)		
		None	e. Electrical Penetration Splices - Raychem Type WCSF-N		
		None	f. Electrical Penetration Assembly - Westinghouse Modular Penetrations		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: XII. Sampling

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-SV951, 953, & 955	23	a. ASCO Solenoid Valves - Pressurizer Steam Space, Pressurizer Liquid Space, and Reactor Coolant Hot Leg Sample Line Isolation Valve Air Operators	12/10/82 (Unit 1) 6/30/83 (Unit 2)	6/30/83
		59	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		43	e. Control Cable - Kerite 600 Volt Control		
		36	f. Electrical Penetration Splices - Bechtel Dwg. No. SK-E-165/Raychem Type SFR		
		35	g. Electrical Penetration Assembly - Westinghouse/ Crouse Hinds Welded Canister Penetration		
2.	1&2-SV966C	18	a. ASCO Solenoid Valves - Reactor Coolant Hot Leg Sample Line Isolation Valve Air Operators	12/10/82 (Unit 1) 6/30/83 (Unit 2)	6/30/83(3)
		57	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Typw WCSF-N		
		39	e. Control Cable - Rome 600 Volt Control		
3.	1&2-SV959	None	a. ASCO Solenoid Valves - Residual Heat Removal Heat Exchanger Outlet Sample Line Isolation Valve Air Operators	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. NAMCO Limit Switches - Valve Position INdication		
		None	c. Conax ECSAs (see Item 2.b)		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		39	e. Control Cable - Rome 600 Volt Control		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: XIII. Instrument Air

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-IA3047 & 3048	None	a. ASCO Solenoid Valves - Instrument Air to Containment Line Isolation Valve Air Operators	3/30/84 (Unit 1) 11/1/84 (Unit 2)	11/1/84(3)
		None	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		39	e. Control Cable - Rome 600 Volt Control		

MASTER LIST OF ELECTRICAL EQUIPMENT IMPORTANT TO SAFETY TO BE ENVIRONMENTALLY QUALIFIED POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

System: XIV. Steam Generator Blowdown

Date: October 10, 1983

Item No.	PBNP Tag No.	NRC TER No.	Description	Expected or Actual Installation/ Operation Date	Expected Environmental Qualification Documentation Date
1.	1&2-CV5958 & 5959	None	a. ASCO Solenoid Valves - Steam Generator Blowdown Line Isolation Valve Air Operators	12/10/82 (Unit) 6/30/83 (Unit 2)	6/30/83
		None	b. NAMCO Limit Switches - Valve Position Indication		
		None	c. Conax Electrical Conductor Seal Assemblies (ECSAs) for NAMCO Limit Switches		
		None	d. ECSA-to-Cable Splices - Raychem Type WCSF-N		
		None	e. Control Cable - Anaconda, Rockbestos, or Brand Rex 600 Volt Control		
		None	f. Electrical Penetration Splices - Raychem Type WCSF-N		
		None	g. Electrical Penetration Assembly - Westinghouse Modular Penetration		

DETAILED AGENDA
WISCONSIN ELECTRIC MEETING WITH NRC STAFF TO
RESOLVE ENVIRONMENTAL QUALIFICATION SER DEFICIENCES

. Generic EQ Deficiences:

	Deficiency	Reference	Proposed Resolution
A.	Lists of Safety-Related Systems "Control habitability and safety equipment area ventilation should be part of the general equipment listed with the supporting systems." "Subject to the above verification by the Licensee, this item is considered resolved."	TER, App. C. p.C-5	This equipment was evaluated as part of the heating and ventilating system but is located in a mild environment.
B.	Installation Date of TMI Action Plan Equipment "The approximate installation date for the TMI Action Plan equipment items is requested so that the appropriate qualification criteria (NUREG-0588 or DOR Guidelines) can be used in the EEQ evaluation."	TER, App. E, p. E-10	Approximate installation dates were provided in our May 20, 1983 response (revised October 10, 1983) to 10 CFR 50.49 and our September 1, 1983 response to NRC Generic Letter No. 82-33 (i.e., Reg. Guide 1.97).

I. Specific Equipment EQ Deficiencies:

A. Pressure, D/P, and Level Transmitters

tem No.	Description	NRC Category	Deficiencies	Proposed Resolution
	1&2-PT922&923 (SI Pump Discharge Pressure)	I.B	Evaluation of Aging Degradation; Qualified Life	Replacement with qualified Foxboro N-E10 Series
, 3, 4	1&2-LT931 (Containment Spray Additive Tank Level) 1&2-FT928 (Low-Head SI [Train B] Flow)	I.B	Documentation	Replacement with qualified Foxboro N-E10 Series
	1&2-LC942A&B, 943A&B (Containment Sump B Level)	I.B	Documentation	Replacement with qualified Gems Delaval level transmitters
, 7, 8	1&2-FT619 (Component Cooling Flow) 1&2-FT626 (Low-Head SI [Train A] & RHR Flow) 1&2-PT628 & 629 (RHR Pump Discharge Pressure)	I.B	Similarity; Evaluation of Aging Degradation	Replacement with qualified Foxboro N-E10 Series
	1&2-PT945 thru 950 (Containment Narrow and Intermediate-Range Pressure)	I.B	Documentation	Replacement with qualified Foxboro N-E10 Series
0, 11	1&2-PT429, 430, 431, & 449 (Pressurizer Narrow-Range Pressure) 1&2-LT426, 427, 428, & 433 (Pressurizer Water Level)	I.B	Similarity; Evaluation of Aging Degradation; Radiation; Test Sequence	Replacement with qualified Foxboro N-E10 Series
2	1&2-LT106, 172, 190; LT102, 171, & 189 (BAST Water Level)	I.B	Similarity; Evaluation of Aging Degradation	Replacement with qualified Foxboro N-E10 Series

A. Pressure, D/P, and Level Transmitters (continued)

Item No.	Description	NRC Category	Deficiencies	Proposed Resolution
13, 14	1&2-PT420 (RCS Wide-Range Pressure) 1&2-LT461, 462, 463, 471, 472, & 473 (S/G Narrow-Range Water Level) 1&2-LT460 & 470 (S/G Wide-Range Water Level)	I.B	Similarity; Evaluation of Aging Degradation; Radiation; Test Sequence	Replacement with qualified Foxboro N-E10 Series
15	1&2-FT464, 465, 474, & 475 (Main Steam Line Flow)	I.B	Documentation	Replacement with qualified Foxboro N-E10 Series
16, 17	1&2-PT468, 469, 478, 479, 482, & 483 (Main Steam Line Pressure) LT4025 & 4031 (CST Water Level)	I.B	Similarity; Evaluation of Aging Degrdation	Replacement with qualified Foxboro N-E10 Series

B. Solenoid Valves for Air Operated Valves

Item No.	Description	NRC Category	Deficiencies	Prooose1 Resolution
8,19,20 1,22,23	1&2-SV966C (Solenoid Valves for RCS Hot Leg Sample AOVs) 1&2-RC430 & 431C (Solenoid Valves for pressurizer PORVs) 1&2-HV3213 & 3245 (Solenoid Valves for Containment Purge Supply & Exhaust AOVs) 1&2-HV3200C (Solenoid Valves for Containment RMS Sampling Line AOVs) 1&2-CV1296 (Solenoid Vaives for Auxiliary Charging Line AOVs) 1&2-SV951, 953, & 955 (Pressurizer Steam & Liquid Space and RCS Hot Leg Sample Line AOVs)	I.B	Documentation	Replacement with qualified ASCO NP Series

C. Motors

tem No.	Description	NRC Category	Deficiencies	Proposed Resolution
4, 50	1&2-P15A & B (SI Pump Motors, Splices and Bearing/Lubricant)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional analysis and documentation
5,52,55	1&2-P14A & B (Containment Spray Pump Motors, Splices, and Bearing/Lubricant)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional analysis and documentation
6,51,55	1&2-P11A & B (Component Cooling Pump Motors, Splices, and Bearing/Lubricant)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional analysis and documentation
7,52,55	1&2-P10A & B (RHR Pump Motors, Splices, and Bearing/Lubricant)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Aging Degradation Program; Radiation	Additional analysis and documentation
,29,53	1&2-W1A1, B1, C1, & D1 (Containment Emergency Fan Cooler Motors, Splices, and Bearing/ Lubricants)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Simulation; Peak Temperature; Radiation; Beta-emitter Plateout	Additional analysis and documentation

D. Temperature Measurement Devices

tem No.	Description	NRC Category	Deficiencies	Proposed Resolution
	1&2-TE621, 627, & 630 (Component Cooling HX Outlet and RHR HX Outlet and Inlet RTDs)	II.C	Documentation; Evaluation of Aging Degradation	Replacement with qualified Conax RTDs for TE621. Substitution of TE622 & 623 for TE627. TE630 is only required for cold shutdown and not in scope of 10 CFR 50.49.
, 37, , 47	1&2-TE1-39 (RCS Core Exit Thermocouples, Connectors, Extension Cables, and Reference Junction Boxes)	I.B	Documentation	Additional analysis and documentation of T/Cs; Replacement of connectors, cables, splices, penetrations with qualified components. Replacement of reference junction boxes and relocation in a mild environment.
, 69 Unit 2 ly)	1&2-450A & B and 451A & B (RCS Hot and Cold Leg Wide-Range Loop RTDs)	I.B	Documentation; Evaluation of Aging Degradation; Qualified Life/Replacement Schedule; Functional Testing; Instrument Accuracy	Replacement with qualified Conax dual-element RTDs

E. Electro-Pneumatic (I/P) Transducers

Item No.	Description	NRC Category	Deficiencies	Proposed Resolution
3	1&2-AC624, 625, & 626; (Electro-pneumatic Transducers for RHR HX Outlet and Bypass AOVs) 1&2-SI836A & B (Electro-pneumatic Transducers for CS Additive Line AOVs)	I.A	None	N/A

F. Electrical Distribution Devices

Item No.	Description	NRC Category	Deficiencies	Proposed Resolution
4	1&2-B32 (Motor Control Centers)	I.B	Documentation (Radiation only)	Radiation Shielding Installed
5	Containment Electrical Penetration Assembly (Westinghouse/Crouse-Hinds Welded Canister Type)	I.A	None	N/A
6	Electrical Cable Splice Inside Containment (Bechtel Dwg. SK-E-165/Raychem Type SFR)	I.A	None	N/A
9	2-RC515, 1&2-RC516 (Rome 600 V. Control Cable for PORV Blocking Valves Inside Containment)	I.B	Documentation	PORV Block Valves are not safety-related (i.e., not required for safe shutdown or design-basis accident mitigation)
	1&2-LC942A & B 943A & B (Rome 600 V. Control Cable for Containment Sump Level Switches)	I.B	Documentation	Replacement of level switches and cable with qualified components
	Various Plant IDs (Rome 600 V. Control Cable Outside Containment)	I.B	Documentation	Additional Analysis and Documentation
0	Various Plant IDs (BIW Bostrad 7 TSP Instrument Cable Located Inside and Outside Containment)	I.A	None	N/A
1	1&2-P15A & B (Okonite Okonex Insulated, Okoprene-Jacketed 5 KV Power Cable for SI Pump Motors)	I.A	None	N/A
2	Various Plant IDs (Okonite Okotherm-Insulated, Okoseal-Jacketed TSP Instrument Cable)	II.A	Similarity	Additional documentation
3	Various Plant IDs (Kerite HTK-Insulated, FR-Jacketed 600 V. Power and FR-Insulated and Jacketed 600 V Control Cables Located Inside and Outside Containment)	I.A	None	N/A
1, 45	1&2-11C & D (Pressurizer Safeguards-Powered Backup Heaters and Cable Connectors)	III.A & B	None	Cold Shutdown Equipment Only and not within scope of 10 CFR 50.49

II. Motor-Operated Valves

Item No.	Description	NRC Category	Deficiencies	Proposed Resolution
61,54,56	1&2-RC515 & 516 (Limitorque MOVs and Lubricants for PORV Blocking Valves Inside Containment)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional Analysis and Documentation
62,54,56	1&2-SI878A & C (Limitorque MOVs and Lubricants for Reactor Vessel SI Line Valves Inside Containment)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional Analysis and Documentation
63,54,56	1&2-SI852A & B and 878B & D (Limitorque MOVs and Lubricants for Low-Head SI and Cold-Leg SI Line Valves Inside Containment)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional Analysis and Documentation
64,54,56	1&2-SI871A & B and SI860A, B, C, & D (Limitorque MOVs and Lubricants for RHR/CS X-connect and CS Discharge Line Valves Outside Containment)	II.A & C	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional Analysis and Documentation
65,54,56	1&2-MS2019 & 2020 (Limitorque MOVs and Lubricants for AFW Pump Turbine Steam Supply Line Valves Outside Containment)	II.A	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional Analysis and Documentation

II. Motor-Operated Valves (continued)

Item No.	Description	NRC Category	Deficiencies	Proposed Resolution
66, 70 (Unit 2 only) 54, 56	1&2-AC738A & B and SI851A & B (Limitorque MOVs and Lubricants for CC/RHR HX Line & RHR Containment Sump Suction RHR Backup Valves Outside Containment)	II.A & C	Documentation; Similarity; Evaluation of Aging Degradation; Qualified Life/ Replacement Schedule; Aging Program; Aging Simulation; Peak Temperature; Radiation	Additional Analysis and Documentation
67, 68 54, 56	1&2-AC700, 701, & 720 (Limitorque MOVs and Lubricants for for RHR Suction and Discharge Lines Isolation Valves Inside Containment)	III.B	None	Cold Shutdown only and not within scope of 10 CFR 50.49.