



Carolina Power & Light Company

SERIAL: NLS-84-129

MAR 23 1984

Director of Nuclear Reactor Regulation
Attention: Mr. D. B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62
RESOLUTION OF SAFETY EVALUATION REPORT (SER)
FOR ENVIRONMENTAL QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT

Dear Mr. Vassallo:

By letter dated December 20, 1982, Carolina Power & Light Company (CP&L) received the Safety Evaluation Report (SER) regarding the Environmental Qualification of Safety-Related Electrical Equipment at the Brunswick Steam Electric Plant (BSEP) Unit Nos. 1 and 2. The SER contained a Technical Evaluation Report (TER), dated August 6, 1982, written by Franklin Research Center under contract to the NRC, which noted a number of environmental qualification (EQ) deficiencies for safety-related electrical equipment at BSEP Unit Nos. 1 and 2. On February 2, 1984, a meeting was held with members of your staff to discuss CP&L's proposed method of resolution for these stated deficiencies and other EQ issues. The purpose of this letter is to provide documentation of the discussions held at the February 2nd meeting.

Section I attached to this letter summarizes CP&L's resolution of the generic EQ deficiencies discussed in your SER. The proposed resolution for each of the qualification deficiencies listed in the TER is summarized in Section II. Section III includes a discussion of BSEP's compliance with the EQ rule, 10 CFR 50.49, including efforts with respect to Regulatory Guide 1.97, "Instruments for Light Water-Cooled Nuclear Power Plants to Assure Plant and Environs Conditions during and following an Accident." Section IV discusses items that CP&L has deleted from the master list of safety-related equipment and the reasons for their deletion.

In accordance with 10 CFR 50.49, final environmental qualification of the electrical equipment within the scope of this rule must be accomplished by the end of the second refueling outage after March 31, 1982 or March 31, 1985, whichever is earlier. The second refueling outage after March 31, 1982 began at BSEP Unit 2 on March 12, 1984. As discussed with your staff at the February 2, 1984 meeting, it will be necessary for CP&L to obtain an extension of the scheduler requirements for BSEP Unit 2 pursuant to 10 CFR 50.49. This extension request is presently being prepared and will be submitted in the near future. CP&L plans to commence the second refueling outage after March 31, 1982 at BSEP Unit 1 on or before March 31, 1985. Carolina Power & Light Company is presently scheduled to complete the qualification work necessary to achieve compliance with 10 CFR 50.49 during that outage. CP&L will not, therefore, require an extension of time within which to complete the work at that unit.

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With the exception of the equipment listed in Section IV of this submittal, the master list submitted on May 20, 1983 has not changed. Carolina Power & Light Company believes that this master list complies with requirements of 10 CFR 50.49 and is available at the site for your review.

Carolina Power & Light Company has reviewed the TERS issued for BSEP Unit Nos. 1 and 2 and has found them to be essentially identical. Therefore, only one submittal will be made for both units.

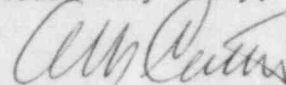
At the February 2, 1984 meeting, the question of review of IE Notices (IEN) concerning EQ at BSEP was raised. Those notices receive the standard review conducted by BSEP plant personnel for all IE Notices. By procedure, each notice is reviewed for applicability to BSEP and applicability is documented. Specifically relevant to the EQ issue, IEN 82-03, 82-52, and 83-72 were reviewed and appropriate actions have been taken. Detailed information concerning these notices is available in the plant files.

Carolina Power & Light Company has previously submitted the required JCO's for the equipment installed at Brunswick. A status of these submittals listed by the latest TER number accompanied our submittal of January 25, 1983 (in response to the Franklin TER/SER of December 1982) and is attached as Section V for your convenience. It is CP&L's understanding that NRC has found these JCO's to be acceptable. Since nothing in this submittal serves to change the plant conditions/parameters from those previously justified, CP&L reaffirms the previously submitted bases for continued operation.

Carolina Power & Light Company believes, therefore, that there are no known concerns relating to the environmental qualification of safety-related electrical equipment which would interfere with safe, continued operation of the Brunswick Plant.

Should you have any questions concerning this letter, please contact a member of our Nuclear Licensing Staff.

Yours very truly,



A. B. Cutter, Vice President
Nuclear Engineering & Licensing

PPC/cfr (9726PPC)

cc: Mr. D. O. Myers (NRC-BSEP)
Mr. J. P. O'Reilly (NRC-R11)
Mr. M. Grotenhuis (NRC)

SECTION I

Response to Generic Issues Included in NRC Safety Evaluation Report (SER dated December 20, 1982)

1. Submission of information within thirty (30) days for any of the items in NRC categories I.a, II.a, and II.b for which justification for continued operation was not previously submitted to NRC or FRC.

Response

Required submittal was made (CP&L letter of January 25, 1983) which included as an attachment an index of all CP&L JCO's. This index shows that all TER items have been addressed.

2. Resolution of completeness of safety-related equipment list.

Response

Section II "Background and Discussion" of our May 20, 1983 submittal states:

"Since the Qualification Program is an ongoing effort, it is recognized that the resultant list may not be entirely correct nor complete at any given time. However, to the best of our knowledge, the enclosed list is complete and correct as of April 1, 1983."

Additionally, changes will occur as the plant modifications are performed, design updates are included, and safety improvements are mandated. Therefore, this listing will be periodically reviewed and modified. Carolina Power & Light Company will maintain these revisions with its equipment qualification file.

Carolina Power & Light Company feels this adequately addresses the completeness issue.

3. Resolution of deficiencies associated with equipment items 46, 103, and 155.

Response

- a) All components associated with Item 46 have been replaced.
- b) Special concern with Item 103 appears to be based on a typographical error on the summary of items by category (Table 4-1) of the TER. Item 103 is identified as category II.a and II.b on the summary sheet and as Category II.a on the specific TER review sheet for the item. We have treated it as Category II.a and addressed it in our specific deficiency listing.

- c) Item 155 will be covered in the specific deficiency listing.
4. Resolution of the concern identified on Page 5-1 of the FRC TER regarding the qualification by analysis of equipment items potentially exposed to LOCA and HELB environments.

Response

This concern appears related to qualification method.

In our deficiency listing where we have identified solutions other than replacement, modification, or testing; these solutions are typically reports from either the manufacturer or a consultant. These reports generally provide similarity analysis, report data and engineering evaluation to demonstrate qualification.

SECTION II
Solutions to TER Deficiencies

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
1	Motorized Valve Actuator (MVA)	11c.	Aging (A) Similarity	Identified for Replacement. Will be replaced with a qualified Limitorque.
2	MVA	11c.	A, Similarity	Patel Engineers Incorporated (Patel) reports PEI-TR-83-4-1 (E21- F001A&B) and PEI-TR-83-4-3 (E21-F015A&B, E21-F031A&B) address the deficiencies by providing either additional report data or analyses. Reports conclude that these items are qualified for their location. Item is considered Category 1a.
3	MVA	1b.	A, Similarity	Patel report PEI-TR-83-4-3 addresses the deficiencies by providing either additional report data or analyses. Reports conclude that this item is qualified for use in its location. Item is considered Category 1a.
4	MVA	11a.	Similarity	Patel Engineers Reports PEI-TR-83-4-3 (E51-F008) and PEI-TR-83-4-1 (E11-F015A&B) addresses the deficiencies by providing either additional report data or analyses. Reports conclude that these items are qualified for use in their locations. Items are considered Category 1a.
5	MVA	11a.	A, Documentation	Same as Item 3
6	MVA	11a.	Similarity	Patel Report PEI-TR-83-4-2 addresses the deficiencies by providing either additional report data or analyses. Report concludes that these items are qualified for use in their locations. Item is considered Category 1a.
7,8,9	MVA	11a.	Similarity Documentation	Same as Item 3
10	MVA	11c.	A	Patel Report PEI-TR-83-4-2 addresses the deficiencies by providing either additional report data or analyses. Report concludes that these items are qualified for use in their locations. Items are considered Category 1a.
11	MVA	11c.	A, Similarity	Same as Item 3
12	MVA	11c.	A, Similarity	Patel Reports PEI-TR-83-4-1 (E21-F005A&B) and PEI-TR-83-4-3 (E11- F052A&B) addresses these deficiencies by providing either additional report data or analyses. Reports conclude that these items are qualified for use in their locations. Items are considered Category 1a.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
13	MVA	Ila.	Documentation	Same as Item 3
14	MVA	Ilc.	A, Similarity	Patel Reports PEI-TR-83-4-2 (E11-F017A&B) and PEI-TR-83-4-3 (E11-F104A&B, E11-F103A&B, E11-F002A&B, E11-F068A&B, E11-F075, E21-F004A&B, SW-V101-6, CAC-V23, A-1-BFV-RB, N-BFV-RB) address these deficiencies by providing either additional report data or analyses. Reports conclude these items are qualified for use in their locations. <u>NOTE:</u> E11-V35-38 have been deleted from the safety lists since failure will not jeopardize the system safety function. Items are considered Category Ia.
15	MVA	Ila.	Similarity	Same as Item 3
16	MVA	Ila.	Similarity	Patel Reports PEI-TR-83-4-1 (E11-F020A&B), PEI-TR-83-4-2 (E11-F003A&B, E11-F004A-D, E11-F006A-D, E11-F007A&B, E11-F016A&B, E11-F024A&B, E11-F027A&B, E11-F028A&B, E11-F047A&B, E11-F043A&B, E11-F011A&B) and PEI-TR-84-4-3 (E51-F029, 31; SW-VIII, 117, 118) address these deficiencies by providing either additional report data or analyses. Reports conclude these items are qualified for use in their locations. Items are considered Category Ia.
17	MVA	Ila.	Documentation	Identified for Replacement. Will be replaced with a qualified Limitorque.
18	MVA	Ila.	Documentation	Patel Report PEI-TR-83-4-1 addresses the deficiencies by providing either additional report data or analyses. Reports conclude these items are qualified for use in their locations <u>NOTE:</u> B32-F043A&B and B32-F044A&B have been removed from the list since they have been locked in position and de-energized in the field. Items are considered Category Ia.
19	MVA	Ila.	Documentation	Patel Report PEI-TR-83-4-1 addresses the deficiencies by providing either additional report data or analyses. Reports concludes these items are qualified for use in their locations. Items are considered Category Ia.
20	MVA	Ila.	Similarity	Same as Item 19 (E41-F002) Other Items (E51-F007, E11-F022, B21-F016, G31-F001) Identified for replacement.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
21	MVA	IIC.	A, Similarity	Same as Item 10
22,23,24	Solenoid Valva (SV)	Ib.	Documentation	Identified for replacement. Will be replaced with a qualified component.
25,26	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified component.
27,28	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified component.
29,30	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified component.
31,32,33	SV	Ib.	Documentation	Analysis shows that item actuates before harsh environment could affect it and that it is fail-safe therefore, it is adequately qualified as installed. Items are considered Category Ia.
34	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified component.
35	SV	Ib.	Documentation	Same as Item 31 (SW-V136 thru 139) Others identified for Replacement. Those to be replaced will be replaced with qualified components.
36,37,38	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
39	SV	Ib.	Documentation	Identified for Replacement (A,B,C,D-BFN-RB) <u>NOTE:</u> CRD solenoids treated as Item 40. Those identified for replacement will be replaced with qualified components.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
40	SV	Ib.	Documentation	GE Report NEDE-22292 addresses the deficiencies by providing either additional report data or analyses. Report concludes that these items are qualified for use in their location. Items are considered Category Ia.
41,42,47,48	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
43	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
44,45,50	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified component.
46	SV	Ila.	Documentation	Replaced with Target Rock 1/2 SMS-A-01-2 which are qualified (Reference Target Rock Report No. 2199A Dated Dec. 27, 1979) Items are considered Category Ia.
49	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified component.
51	SV	Ib.	Documentation	Same as Item 31.
52,53	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
54,55	SV	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
56	Pressure Switch (PS)	Ila.	Documentation	Items 1/2-B21-PS-N021B,D; 1-E51-PDS-N017,18; 1-E41-PDS-N004,5: Have been replaced with qualified items (Rosemount 1152 Series, Ref: UE&C Letter UC-33229, Aug. 20, 1982) Items are considered Category Ia. Other items identified for replacement (2-E41-PDS-N004,5; 2-E51-PDS-N017,18). Those to be replaced will be replaced with qualified components.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
57,59	PS	Ila.	A, Temperature (T), Pressure (P), Steam Exposure, Functional Testing, Duration	Identified for Replacement. Will be replaced with qualified components.
58	PS	Ila.	A,T,P, Functional Testing	Items have been replaced with qualified items Rosemount 1152 Series Ref. UE&C Letter UC-33229 Dated Aug. 20, 1982. Items are considered Category Ia.
60,61,62,63	PS	Ila.	A, Documentation	Identified for Replacement. Will be replaced with qualified components.
64,65	Pressure Indicator	IIla.	None	Exempt
66	Pressure Transmitter (PT)	Ib.	Documentation	Same as Item 58.
67	PT	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
68,69	PT	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
70	PS	Ila.	A,P, Radiation (R) Similarity	Same as Item 58.
71,72,73,74, 75,76,77,78, 79,80,81	PS	Ila.	A,T,P,R, Similarity Steam Exposure	Identified for Replacement. Will be replaced with qualified components.
82	Level Switch (LS)	Ib.	A,T,R, Duration Similarity	Identified for Replacement. Will be replaced with qualified components.
83	LS	Ila.	A,P, Duration Functional Testing	Same as Item 58.
84,86,87	LS	Ila.	A, Documentation	Same as Item 58.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
85	LS	IIa.	A, Documentation	Identified for Replacement. Will be replaced with qualified components.
88	LS	IIa.	A,P,R	Patel Report PEI-TR-83-4-19 addresses the deficiencies by providing either additional report data or analyses. Report concludes that these items are qualified for use in their location. Items are considered Category Ia.
89	Level Indicator	IIa.	None	Exempt
90	Level Transmitter (LT)	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
91	Flow Switch (FS)	IIa.	A, Documentation	Identified for Replacement. Will be replaced with qualified components.
92	Flow Indicator	IIa.	None	Exempt
93	Flow Transmitter (FT)	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
94,122	Position Switch	IIa.	Documentation	Identified for Replacement. Will be replaced with qualified components.
95	FT	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
96,97,98	FS	IIa.	Documentation	Identified for Replacement. Will be replaced with qualified components.
99	Temperature Switch (TS)	IIa.	A,P,R, Documentation	Identified for Replacement. Will be replaced with qualified components.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
100	Resistance Temperature Detector	Ib.	A, Similarity	Identified for Replacement. Will be replaced with a qualified Weed RTD.
101,102,103, 104,105,106	Thermocouple	Ila.	A, Similarity, Accuracy	Patel Report PEI-TR-83-4-6 addresses these items and together with manufacturers testing now in progress is expected to verify qualification of these items.
107,108,109, 110,111,112, 113,114	TS	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified Fenwall TS.
115	Limit Switch	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
116,117,118	Limit Switch	Ila.	A,T,P, Test Anomalies	Patel Report PEI-TR-83-4-24 addresses these items by providing either additional report data or analyses. Report concludes these items are qualified for use in their location. Items are considered Category Ia.
119,120,121	Limit Switch	Ia.	None	
123	Limit (Position) Switch	Ib.	Documentation	Identified for Replacement. Will be replaced with qualified components.
124	Limit Switch	Ib.	A,T,P,R, Duration Steam Exposure Similarity	Identified for Replacement. Will be replaced with qualified components.
125,126,127, 128,129	Limit Switch	Ib.	A,T,P,R, Duration Steam Exposure Similarity	To be tested
130,131,133, 134,135	Control Switch	Ila.	A,T,P,R, Similarity Steam Exposure	To be tested
132	Control Switch	Ib.	Documentation	To be tested
136,137	Electric Motors (Fan Drives)	Ila.	T,P,R, Similarity Documentation Steam Exposure Duration	Patel Report PEI-TR-83-4-11 addresses the deficiencies by providing either additional report data or analyses. Report concludes that these items are qualified for use in their locations. Items are considered Category Ia.
138	Electric Motor (Pump Drives)	Ila.	Documentation	Motor manufacturer (GE) has been contacted to provide a proposal for substantiating documentation for these items.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
139,140	Electric Motor (Pump Drives)	Ila.	T,P, Similarity	GE Report NEDC-30294 addresses these deficiencies by providing report data, analyses and traceability information and together with existing documentation provides the information necessary to verify qualification of these items. Items are considered Category Ia.
141	Electric Motor (Pump Drive)	Ila.	Documentation	Motor is a GE motor, GE has been contacted to provide either qualification data or a qualified replacement. We have been unable to find a qualified replacement from another vendor.
142,146	Relay	Ila.	A, Documentation	CP&L and four other utilities are involved in a co-operative effort with GE to qualify motor control centers and all their components. These items are included in this effort.
143	Time Delay Relay	Ib.	Documentation	Identified for Replacement or Relocation.
144	Relay	Ib.	Documentation	Same as Item 142
145	Relay	Ia.	A, Documentation	Same as Item 142.
147	Motor Control Centers	Ib.	Documentation	Same as Item 142.
148	Radiation Detectors	Ib.	Documentation	Circuitry to be modified to enable continued use of existing detector with existing documentation.
149	Containment Radiation Monitor	Ib.	Documentation	Item Deleted from the list; safety-related, post-accident function is to be performed by Victoreen area radiation monitors installed per NUREG-0737. The Victoreen monitors are qualified per Victoreen Report No. 950.31 and Addendum. These items will be completed on NUREG-0737 schedule.
150	Hydrogen-Oxygen Analyzer	Ib.	Documentation	Item replaced by Teledyne Hydrogen-Oxygen monitor system which is qualified per Teledyne Reports 58541 and 58635. Item is considered Category Ia.
151	Terminal Lug (Nylon)	Ib.	Documentation	To be tested
152	Terminal Lug (Kynar)	Ila.	T	Patel Report PEI-TR-83-4-5 addresses these items by providing either additional report data or analyses. Report concludes items are qualified for use in their location. Items are considered Category Ia.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
153	Connector	1b.	Documentation	Patel Report PEI-TR-83-4-14-1 addresses these items by providing either additional report data or analyses. Report concludes items are qualified for use in their location. Items are considered Category 1a.
154	Fuse Panel	11a.	Documentation	Analysis shows that failure of these panels causes a reactor scram which is a safe condition, therefore, they are adequately qualified as installed. Items are considered Category 1a.
155	Turbine	11a.	Documentation	Subcomponents that are found to have no available qualification information are being replaced.
156	Motor Control Center (SBGT)	11a.	A,T,P,R, Similarity Steam Exposure, Duration	Specific subcomponents are addressed in different ways, some will come under the MCC effort as described in item 142, some are identified for replacement, and some will have circuitry changes.
157,158,159	Cable	11a.	A, Similarity	Patel Report PEI-TR-83-4-13 addresses these items by providing either additional report data or analyses. Report concludes that item is qualified for use in its locations. Items are considered Category 1a.
160	Cable	11a.	Similarity Documentation	Patel Report PEI-TR-83-4-9 addresses these items by providing either additional report data or analyses. Report concludes that item is qualified for use in its locations. Item is considered Category 1a.
161	Cable	11c.	A	Analysis using manufacturers test data shows a qualified life >40 years. Item is considered Category 1a.
162,163	Cable	11a.	A, Similarity	Patel Report PEI-TR-83-4-7 addresses these items by providing either additional report data or analyses. Report concludes that item is qualified for use in its location. Item is considered Category 1a.
164	Cable	11a.	Similarity, A	Item to be tested per our letter of Dec. 31, 1982 (Eury-Vassallo)
165	Cable	11a.	Similarity, A	Patel Report PEI-TR-83-4-8 addresses this item by providing either additional report data or analyses. Report concludes that item is qualified for use in its locations. Item is considered Category 1a.
166	Cable	1a.	None	
167	Cable	11a.	A, Similarity	Patel Report PEI-TR-83-4-10 addresses this item by providing either additional report data or analyses. Report concludes that item is qualified for use in its locations. Item is considered Category 1a.
168	Splice	11c.	A	Analysis of manufacturers test data shows a qualified life of >40 years.

TER #	COMPONENT	NRC CATEGORY	DEFICIENCY	PROPOSED SOLUTION
169	Connector	Ib.	Documentation	Item to be Replaced. Will be replaced with a qualified component.
170	Splice	Ib.	Documentation	Item in question is a KYNAR insulating sleeve. Patel Report PEI-TR-83-4-5 can be used to verify qualification of KYNAR Insulation. Additionally items are being replaced as a result of other work. Items are considered Category Ia.
171	Splice	Iic.	A	Analysis of manufacturers test data shows a qualified life of 28 years.
172	Splice	Ila.	A, Similarity	Identified for Replacement. Will be replaced with a qualified component.
173,174	Electrical Penetration Assy. (EPA)	Ila.	Documentation	Patel Report PEI-TR-83-4-14 addresses this item by providing either additional report data or analyses. Report concludes items are qualified for use in their locations. Items are considered Category Ia.
175	Terminal Block	Ia.	None	
176,177,178	Terminal Lug	Ila.	Documentation	Patel Report PEI-TR-83-4-4 addresses these items by providing either additional report data or analyses. Report concludes that items are qualified for use in their locations. Items are considered Category Ia.
179	Terminal Block	Ib.	Documentation	To be tested
180,182	Terminal Block	Ib.	Documentation	Identified for Replacement. Will be replaced with a qualified component.
181	Terminal Block	Ib.	Documentation	To be tested
183	Terminal Lug	Ia.	None	

SECTION III

Compliance to 10 CFR 50.49

Based on 10 CFR 50.49, definition of safety-related electrical equipment, the Plant A/E, United Engineers and Constructors, was requested to provide a master equipment list of components in Engineered Safety Feature Systems required to function under accident conditions to mitigate the consequences of a Loss of Coolant Accident (LOCA) or High Energy Line Break (HELB). The list was developed from a review of the plant design basis documentations, including Design Reports, the Final Safety Analysis Report, the Technical Specifications, and the Emergency Instructions in the Brunswick Steam Electric Plant Operating Procedures, Volume VI.

At least two cognizant engineers, one of whom holds an SRO license on BSEP, reviewed each item on the master list for the accuracy of its assessed system function and the appropriateness of its inclusion on the list using Appendix A of DOR guidelines. The list was verified by partial field inspection.

Following the above initial effort, the system drawings were marked to establish the Class 1E equipment and piping boundaries and the non-Class 1E equipment within the boundary was identified. The drawings were then reviewed to determine which electrically operated components/devices/equipment and instruments are required to maintain the integrity of the identified system to preserve the Reactor Coolant Pressure Boundary and to mitigate the consequences of any accident. The drawings were then marked to identify; Class 1E components inside the harsh environment, Class 1E components not in the harsh environment, and non-Class 1E components irrespective of location. It was then verified that the components in a harsh environment that are not required to mitigate the consequences of an accident are isolated from safety related systems and components. If a component could prevent a Class 1E component from mitigating the consequences of an accident due to improper isolation, that component or its isolation device is considered Class 1E. The coordination of isolation devices that are required for safe shutdown of the reactor is verified by the Appendix R study.

Carolina Power & Light Company believes that the above efforts meet the intent of paragraph (b)(1) and (b)(2) of 10 CFR 50.49 for BSEP. Additionally, the post accident harsh environment assumed for the purposes of the equipment qualification program envelopes the worst case conditions, and those environmental profiles and assumptions have been approved by the NRC.

Paragraph (b)(3) of 10 CFR 50.49 refers to equipment related to Regulatory Guide 1.97. Carolina Power & Light Company is committed to the schedule as presented in our response to NUREG-0737 Supplement No. 1.

Carolina Power & Light Company also believes that Section (b)(3) requires the qualification of only certain Category 1 and 2 equipment, and that the technical Staff has the discretion to determine in discussions with CP&L which Category 1 and 2 equipment will be qualified. If the technical Staff agrees with CP&L that a particular Category 1 or 2 instrument does not need to be qualified, then it is outside the scope of the rule. Only where the Staff and

CP&L do not agree on the need for qualification of a Category 1 or 2 instrument must an exemption request be filed, though the Staff's determination may first be appealed to higher NRC management.

The schedule of Section 50.49(g) applies only where CP&L has identified an item of post-accident monitoring equipment as warranting qualification (e.g., on the May 20, 1983 submittal) and this determination will not change in the Regulatory Guide 1.97 resolution process. Any other items of Regulatory Guide 1.97 equipment that are determined as a result of the resolution process to warrant qualification will be qualified in accordance with the schedule agreed to in negotiations with the NRC and CP&L. This includes items which were identified on the May 20, 1983 submittal but which CP&L contends do not warrant qualification. Carolina Power & Light Company believes that the equipment qualification submittals may be amended to withdraw from the list such Regulatory Guide 1.97 equipment.

SECTION IV

Items Removed from Master List

The following items are listed as removed or deleted from the list of safety-related equipment with the accompanying reason(s).

TER#	Plant ID#	Remark
14	E11-V35-38	These items were motor operated bypass valves around the RHR system testable check valves and have been deleted from the system as unnecessary.
18	B32-F043A&B B32-F044A&B	Valves are locked in position as shown in the Plant Operating Procedures. The breaker associated with the valve motor has been tagged open. This was done for operational reasons in 1981.

SECTION V

Justification for Continued Operation (JCO) Status Sheet

TER Item Number	JCO Submitted 1/83	JCO Submitted 3/82	JCO Submitted 10/80	JCO Not Required
1				X NOTE 1
2	X			
3	X			
4	X			
5	X			
6	X			
7	X			
8	X			
9	X			
10	X			
11	X			
12	X			
13	X			
14	X			
15	X			
16	X			
17	X			
18	X			
19	X			
20	X			
21	X			
22		X		
23		X		
24		X		
25		X		
26		X		
27		X		
28		X		
29		X		

TER Item Number	JCO Submitted 1/83	JCO Submitted 3/82	JCO Submitted 10/80	JCO Not Required
30		X		
31		X		
32		X		
33		X		
34		X		
35		X		
36		X		
37		X		
38		X		
39		X		
40		X		
41		X		
42		X		
43		X		
44		X		
45		X		
46	X			
47		X		
48		X		
49		X		
50		X		
51		X		
52		X		
53		X		
54		X		
55		X		
56	X			
57	X			
58	X			
59	X			
60	X			
61	X			
62	X			

TER Item Number	JCO Submitted 1/83	JCO Submitted 3/82	JCO Submitted 10/80	JCO Not Required
63	X			
64				X NOTE 2
65				X NOTE 2
66		X		
67		X		
68		X		
69		X		
70	X			
71	X			
72	X			
73	X			
74	X			
75	X			
76	X			
77	X			
78	X			
79	X			
80	X			
81	X			
82		X		
83		X		
84	X			
85	X			
86	X			
87	X			
88	X			
89				X NOTE 2
90		X		
91	X			
92				X NOTE 2
93		X		
94	X			
95		X		

TER Item Number	JCO Submitted 1/83	JCO Submitted 3/82	JCO Submitted 10/80	JCO Not Required
96		X		
97		X		
98		X		
99	X			
100		X		
101	X			
102	X			
103	X			
104	X			
105	X			
106	X			
107		X		
108		X		
109		X		
110		X		
111		X		
112		X		
113		X		
114		X		
115	X			
116	X			
117	X			
118	X			
119				X NOTE 3
120				X NOTE 3
121				X NOTE 3
122	X			
123		X		
124		X		
125		X		
126		X		
127		X		
128		X		

TER Item Number	JCO Submitted 1/83	JCO Submitted 3/82	JCO Submitted 10/80	JCO Not Required
129		X		
130	X			
131	X			
132		X		
133	X			
134	X			
135	X			
136	X			
137	X			
138	X			
139	X			
140	X			
141		X		
142	X			
143		X		
144		X		
145	X			
146	X			
147		X		
148		X		
149		X		
150		X		
151		X		
152	X			
153		X		
154			X	
155	X			
156	X			
157	X			
158	X			
159	X			
160	X			
161				X NOTE 1

TER Item Number	JCO Submitted 1/83	JCO Submitted 3/82	JCO Submitted 10/80	JCO Not Required
162	X			
163	X			
164				X NOTE 4
165	X			
166				X NOTE 3
167	X			
168				X NOTE 1
169		X		
170		X		
171				X NOTE 1
172	X			
173	X			
174	X			
175				X NOTE 3
176	X			
177	X			
178	X			
179		X		
180		X		
181		X		
182		X		
183				X NOTE 3

NOTES

1. Item is Category II.c.
2. Item has been removed from the plant.
3. Item is Category I.a.
4. Item was justified in our latter of 12/31/82 (Eury - Vassallo).