December 15, 1980

File: NG-3514(B) Serial No.: NO-80-1873

Mr. Darrell G. Eisenhut, Director
Division of Licensing
United States Nuclear Regulatory Commission
Washington, D. C. 20555

BRUNSWICK STEAM ELECTRIC PLANT UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
POST TMI REQUIREMENTS CONTAINED IN NUREG-0737

Dear Mr. Eisenhut:

As requested by your letter of October 31, 1980, Carolina Power & Light Company (CP&L) hereby forwards its commitments for completion of the items contained in NUREG-0737, "Clarification of TMI Action Plan Requirements" which are applicable to the Brunswick Steam Electric Plant (BSEP). Enclosure 1 contains a listing of the items potentially applicable to Brunswick, the NRC requested schedule, and CP&L's commitment. Where CP&L's schedule is different from that requested, an attachment to Enclosure 1 has been provided. These attachments clarify CP&L's position on certain items or justify a schedule which differs from the one requested.

We believe that a number of the items required by your letter may require further definition of the requirements and acceptance criteria through discussions with NRC Staff. If this should cause a change in scope of the items that could impact the implementation schedule for Brunswick, we will inform you promptly so that any problems associated with implementation may be resolved to our mutual agreement. As part of these discussions, and following a comprehensive review of the requirements, CP&L may wish to propose alternatives to the strict interpretation of some requirements. Such alternatives may include: a) modifications other than those suggested by the requirement which are of equal or greater safety improvement; b) design and test of hardware modifications on a single typical plant followed by implementation on remaining plants; c) exception to some requirements whose implementation is believed unnecessary. Additionally, implementation of plant modifications may be dependent on availability of equipment and purchasing lead time. It is our intent to work on the study, design, engineering, procurement, and construction of these items in a manner that will reduce or eliminate

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these concerns; however, if equipment availability becomes a problem that will unavoidably delay implementation of any requirement, we intend to petition for relief of the implementation schedule. Finally, you should realize that these requirements place a significant strain on CP&L's and the industry's resources. We hope that this is recognized by you and the remainder of the NRC Staff, and that you will work with us where necessary to ensure that correct implementation of the requirements are made only to increase the overall safety of the Brunswick Plant.

We trust this letter is responsive to your requirements at this time, and stand prepared to provide additional information if you so desire.

Yours very truly,

E. E. Utley
Executive Vice President
Power Supply and
Engineering & Construction

JJS/jc (4173)
Attachments

cc: Mr. J. N. Hannon (NRC)

Sworn to and subscribed before me this 15th day of December 1980

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Notary Public

My commission expires: October 4, 1981

BRUNSWICK POST TMI REQUIREMENTS PER NUREG 0737

Enclosure 1

ITEM	TITLE	DESCRIPTION	NRC IMPLE-MENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
I.A.1.1	Shift Technical advisor	3. Trained per LL Cat B	1/1/81	1/1/81	1/1/81	
		4. Describe long-term program	1/1/81	1/1/81	1/1/81	
I.A.1.3	Shift manning	2. Min shift crew	7/1/82	11/1/80	Shift manning - Complete	CP&L ltr. 11/5/80 See Attachment 11
I.A.2.1	Immediate upgrading of RO and SRO training and qualifications	2. SROs be ROs 1 yr	12/1/80	None	Complete	
I.A.3.1	Revise scope and criteria for licensing exams	3. Simulator exams	10/1/81	None	10/1/81	
I.C.1	Short-term accident and procedures review	2. Inadequate core cooling				
		a. Reanalyze and propose guidelines	1/1/81	1/1/81	1/1/81	
		b. Revise procedures	First refueling outage after 1/1/82	TBD	First refueling outage after 1/1/82	
		3. Transients & accidents				
		a. Reanalyze and propose guidelines	1/1/81	1/1/81	1/1/81	
		b. Revise procedures	First refueling outage after 1/1/82	TBD	First refueling outage after 1/1/82	

ITEM	TITLE	DESCRIPTION	NRC IMPLEMENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
I.C.5	Feedback of operating experience	Licensee to implement procedures	1/1/81	None	1/1/81	
I.C.6	Verify correct performance of operating activities	Revise performance procedures	1/1/81	None	CP&L Position by 1/1/81	Attachment 12
I.D.1	Control-room design reviews	Preliminary assessment and schedule for correcting deficiencies	TBD	4/82	See Attachment 1	
I.D.2	Plant-safety-parameter display console	1. Description 2. Installed 3. Fully implemented	TBD TBD TBD	Later		
II.B.1	Reactor-coolant-system vents	1. Design vents 2. Install vents (LL Cat B) 3. Procedures	7/1/81 7/1/82 1/1/82	7/1/81 7/1/81 1/1/81	7/1/81 NA 1/1/82	Attachment 2 CP&L ltr. 12/31/79
II.B.2	Plant shielding	2. Plant modifications (LL Cat B) 3. Equipment qualification	1/1/82 6/30/82	1/1/81 (Deviation only) 1/1/82	Documentation 1/1/81 Modifications 1/1/82 Consistent with IE Bulletin 79-01B	
II.B.3	Postaccident sampling	2. Plant modifications (LL Cat B)	1/1/82	1/1/81 (Deviation only)	Documentation 1/1/81 Modifications 1/1/82	
II.B.4	Training for mitigating core damage	1. Develop training program	1/1/81	1/1/81	1/1/81	

ITEM	TITLE	DESCRIPTION	NRC IMPLE-MENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
II.B.4 (Cont'd)		2. Implement program				
		a. Initial	4/1/81		4/1/81	
		b. Complete	10/1/81		10/1/81	
II.D.1	Relief & safety valve test require-ments	2. RV & SV testing (LL Cat B)				
		a. Complete testing	7/1/81	7/1/81	See Attachment 3	
		b. Plant-specific report	10/1/81	1/1/82		
II.E.4.1	Dedicated hydrogen penetrations	2. Install	7/1/81	7/1/81	Unit 1 - Early 1982 Refueling Outage Unit 2 - Late 1981 Refueling Outage	Attachment 4
II.E.4.2	Containment isolation dependability	5. Cntmt pressure setpoint				
		a. Specify pressure	1/1/81	1/1/81	1/1/81	
		b. Modifications	7/1/81	1/1/81	None Planned	Attachment 5
		6. Cntmt purge valves	1/1/81	1/1/81	1/1/81	
		7. Radiation signal on purge valves	7/1/81	7/1/81	7/1/81	
		8. Tech. Specs.	12/15/80	9/1/80	4/1/81	CP&L ltr. 9/16/80 Attachment 5
II.F.1	Accident-monitoring	1. Noble gas	1/1/82	1/1/81 Submittal if deviation from position	Documentation 3/1/81 Implementation 1/1/82	Attachment 7
		2. Iodine/particulate sampling	1/1/82	1/1/81 Submittal if deviation from position	Documentation 3/1/81 Implementation 1/1/82	Attachment 7

ITEM	TITLE	DESCRIPTION	NRC IMPLEMENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
II.F.1	Accident-monitoring (continued)	3. Containment high-range monitor	1/1/82	7/1/81 Submittal if deviation from position	Documentation 7/1/81 Implementation 1/1/82	
		4. Containment pressure	1/1/82	1/1/82	1/1/82	
		5. Containment water level	1/1/82	1/1/82	Unit 1 - Early 1982 Refueling Outage Unit 2 - Late 1981 Refueling Outage	CP&L ltr. of 12/12/80
		6. Containment hydrogen	1/1/82	1/1/82	Unit 1 - Early 1982 Refueling Outage Unit 2 - Late 1981 Refueling Outage	Attachment 13
II.F.2	Instrumentation for detection of inadequate core cooling	3. Install level instruments (LL Cat B)	1/1/82	1/1/82	Complete	CP&L ltr.of 12/31/79
II.K.3	Final recommendations, B&O task force	3. Reporting SV & RV failures & challenges	1/1/81	1/1/81	1/1/81	
		13. HPCI & RCIC init levels				
		a. Analysis	1/1/81	1/1/81	1/1/81	
		b. Modify	7/1/81	1/1/81	Documentation 1/1/81	Attachment 6
		15. Isolation of HPCI & RCIC modification	7/1/81	1/1/81	Documentation 1/1/81	Attachment 6
		16. Challenges & failures to relief valves				
		a. Study	4/1/81	4/1/81	4/1/81	
		b. Modify	1st refuel or 1 yr after approval	4/1/81	Documentation 4/1/81	Attachment 6
		17. ECC system outages	1/1/81	1/1/81	1/1/81	
		18. ADS actuation				
		a. Study	4/1/81	4/1/81	4/1/81	
		b. Propose	4/1/82	4/1/82	4/1/82	Attachment 6
		c. Modification	1st refuel 6 mo after staff approval		See Attachment 6	

ITEM	TITLE	DESCRIPTION	NRC IMPLE-MENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED bY	CP&L COMMITMENT	REFERENCES
II.K.3	Final recommen-dations, B&O task force (continued)	21. Restart of CSS & LPCI				
		a. Design	1/1/81	1/1/81	1/1/81	
		b. Modification	1st refuel 6 mo after staff approval	1/1/81	Documentation 1/1/81	Attachment 6
		22. RCIC suction				
		a. Verify procedures	1/1/81	1/1/81	1/1/81	
		b. Modification	1/1/82	1/1/82	Unit 1 - Early 1982 Refueling Outage Unit 2 - Late 1981 Refueling Outage	Attachment 14
		24. Space cooling for HPCI/RCIC modification	1/1/82	1/1/82	1/1/82	
		25. Power on pump seals				
		a. Propose mods	7/1/81	7/1/81	7/1/81	
		b. Modifications	1/1/82	1/1/82	See Attachment 6	
		27. Common ref. level	7/1/81	1/1/81	7/1/81	Attachment 8
		28. Qual of ADS accumulators	1/1/82	1/1/82	1/1/82	
		30. SB LOCA methods				
		a. Schedule outline	11/15/80	11/15/80	Not Applicable	CP&L ltr. 12/4/80
		b. Model	1/1/82	1/1/82		
		c. New analyses	1/1/83 or 1 yr after staff approval	1/1/83 or 1 yr after staff approval		
		31. Compliance with CFR 50.46	1/1/83 or 1 yr after staff approval	1/1/83	See Attachment 9	
		44. Eval transient with single failure	1/1/81	1/1/81	1/1/81	

ITEM	TITLE	DESCRIPTION	NRC IMPLEMENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
II.K.3	Final recommendations, B&O task force (continued)	56. Manual depressurization	1/1/81	1/1/81	1/1/81	
		57. Manual act of ADS	TBD	TBD		
III.A.1.2	Upgrade emergency support facilities	2. Design	TBD	TBD		
		3. Modifications	TBD	TBD		
III.A.2	Emergency preparedness	1. Upgrade emergency plans to App. E. 10 CFR 50	4/1/81	1/2/81	1/2/81	
		2. Meteorological data	6/1/83	1/2/81	See Attachment 10	
III.D.3.3	Inplant radiation monitoring	2. Modifications to accurately measure I_2	1/1/81	1/1/81	1/1/81	
III.D.3.4	Control-room habitability	1. Review	1/1/81	1/1/81	1/1/81	
		2. Modification	1/1/83	1/1/81	Documentation 1/1/81 Implementation 1/1/83	

ATTACHMENT 1

Item I.D.1 - Control Room Design Review

Carolina Power & Light Company (CP&L) will commit to a schedule to perform this review upon receiving finalized criteria and requirements from the NRC. Until then, no schedular commitments can be made.

ATTACHMENT 2

Item II.B.1 - Reactor Coolant System Vents

In accordance with the discussion on reactor coolant system vents contained in our submittal of December 31, 1979, no additional venting capability is required due to the inherent capability already contained in the Brunswick plant. However, additional information was requested of the GE BWR Owners' Group on this subject in a letter from Mr. T. M. Novak dated September 10, 1980. CP&L will work with the Owners' Group on this item and will submit the requested information on hydrogen concentrations inside containment prior to July 1, 1981. With regard to procedures for venting, emergency procedure guidelines, containing the necessary guidelines for venting, have been developed and submitted for review and approval. We propose that implementation of any venting procedures be integrated with the general emergency procedures implementation requirement of Item I.C.1. Until that time current procedures governing the operation of high pressure ECCS systems assure that adequate venting of noncondensibles will occur.

ATTACHMENT 3

Item II.D.1 - Relief & Safety Valve Test Requirements

With regard to this item, Carolina Power & Light Company is a member of the BWR Owners' Group committee which is developing and performing the test program for the valves. The test program was described in a submittal dated September 17, 1980, from D. B. Waters, Chairman of the Owners' Group, to D. G. Eisenhut. The program is a low-pressure test program, and the actions of Item II.D.1 will be completed for this program in accordance with the NRC's implementation schedule. The need for high pressure liquid and two-phase testing of the valves is under review by NRC, and it is our understanding, based on an executive meeting between the Owners' Group and NRC on October 22, 1980, that the schedule for any additional testing that may be required as a result of that review will be established at a later date. Based on this understanding, Carolina Power & Light Company commits to the implementation and submittal dates contained in Item II.D.1 for the low-pressure test program only.

ATTACHMENT 4

Item II.E.4.1 - Dedicated Hydrogen Penetrations

The modifications required to meet this item require several weeks of outage time. Current delivery for required new valves are projected for the fall of 1981 and are being hampered by the equipment qualification requirement to meet IEEE-323-1974.

Current outage forecasts call for outages at Brunswick as follows:

Unit 2 - Late 1981
Unit 1 - Early 1982

Because of the outage time required to make these modifications, CP&L has chosen to install these changes during scheduled maintenance or refueling outages consistent with the present equipment delivery projections.

CP&L believes that this deferral is justified due to Brunswick having presently installed an operable hydrogen control system (CAD System) that has previously been reviewed and approved by the NRC as part of the licensing base for the plant. The proposed modifications are merely providing an upgrade to the present approved system.

ATTACHMENT 5

Item II.E.4.2 - Containment Isolation Dependability

In its January 1, 1981 submittal, CP&L intends to justify appropriateness of the present containment pressure setpoint.

With regard to Technical Specifications, phone conversations between CP&L and the NRC on September 2, 1980 and CP&L's letter of September 16, 1980 committed to provide Technical Specification changes consistent with the reevaluation of the Containment Isolation Valve ISI Program, then expected to be completed in December 1980. The completion date of that reevaluation has now been extended to March 1981 and has been approved by the Region II office of Inspection & Enforcement. Therefore, CP&L will provide Technical Specification changes by April 1, 1981, consistent with completion of the above evaluation.

ATTACHMENT 6

Item II.K.3 - Final Recommendations of the B&O Task Force

A number of items under II.K.3 require an analysis or study to be performed, the proposal of modifications, if required, and then implementation of the changes. For these items, CP&L will commit to perform the required studies/analyses and make the required modification proposals in accordance with the NRC schedule. CP&L, however, cannot commit to performing modifications whose scope has not been determined or which may require scheduling consistent with planned maintenance or refueling outages. Upon completion of the required studies/analyses, CP&L will work with the NRC to schedule in a timely manner any required modifications.

ATTACHMENT 7

Item II.F.1 - Additional Accident-Monitoring Instrumentation

1. Noble Gas Effluent Monitor -Due to changes imposed by NUREG 0737, the required documentation of the final design details will not be available until March 1, 1981. Any deviations from the NRC requirements will be documented at that time. The system will be installed by January 1, 1982. Since this is a post-implementation review item, as indicated in Enclosure 1 of NUREG 0737, the delay in submittal of information is not deemed significant.

2. Iodine/Particulate Sampling - Due to changes imposed by NUREG 0737, the required documentation of the final design details will not be available until March 1, 1981. Any deviations from the NRC requirements will be documented at that time. The system will be installed by January 1, 1982. Since this is a post-implementation review item, as indicated in Enclosure 1 of NUREG 0737, the delay in submittal of information is not deemed significant.

(RQ #5)

ATTACHMENT 8

Item II.K.3.27 - Common Reference Level for Vessel Level Instrumentation

This item requires a post-implementation review. Therefore, providing documentation on the item six months prior to accomplishing it is inconsistent. CP&L will provide the required documentation upon completion of the modification.

ATTACHMENT 9

Item II.K.3.31 - Compliance with 10CFR 50.46

CP&L cannot commit to the schedule for this item until the results of Item II.K.3.30 are known. As stated in our letter of December 4, 1980, Item II.K.3.30 is strictly the purview of the NSSS vendor and therefore we have no control over it or its schedule. Upon completion of Item II.K.3.30 by the NSSS vendor, CP&L will work with the NSSS vendor and NRC to provide any required analysis in a timely manner.

ATTACHMENT 10

Item III.A.2.2 - Meteorological Data

To date, CP&L has not received the finalized versions of NUREG 0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" or NUREG 0696, "Functional Criteria for Emergency Response Facilities." Therefore, CP&L cannot commit to the schedule provided. Upon receipt of the above documents and after appropriate time to analyze them, CP&L will work with the NRC to provide the required capabilities in a timely manner.

ATTACHMENT 11

Item I.A.1.3 - Shift Manning

As stated in Carolina Power & Light Company's letter of November 5, 1980, Brunswick meets the shift manning requirements outlined in D. G. Eisenhut's letter of July 31, 1980 by July 1, 1982. Additionally, CP&L has adopted an overtime policy generally consistent with the concerns expressed in the July 31, 1980 letter. CP&L, however, believes that some details of the overtime restrictions as stated in NUREG 0737 are overly prescriptive, detrimental to an orderly life for our personnel and potentially harmful to safety. Therefore, CP&L will address these items in detail in a submittal to the NRC by January 15, 1981 and propose specific alternatives to those requirements expressed in NUREG 0737.

ATTACHMENT 12

Item I.C.6 - Verify Correct Performance of Operating Activities

This item is a new item not previously required of operating plants, and requires detailed study to assess the impact of requirements on plant operating practices. Therefore, CP&L cannot commit to full implementation by January 1, 1981. CP&L, however, will provide by January 1, 1981 a description of measures being performed at Brunswick in this area and CP&L's position on the remaining portions of the item.

ATTACHMENT 13

Item II.F.1.6 - Containment Hydrogen

Brunswick currently has two post accident hydrogen/oxygen analyzers installed on each unit as part of the containment atmosphere monitoring subsystem. Replacement of these monitors is being pursued as a reliability improvement. Installation of the new monitors will require an outage. Since delivery is not scheduled until the summer of 1981, CP&L has elected to install the new monitors during the first scheduled outage of sufficient duration. As currently scheduled these outages are:

Unit 2 - Late 1981
Unit 1 - Early 1982

ATTACHMENT 14

Item II.K.3.22 - Automatic Switchover of RCIC Suction

Modifying RCIC to provide for auto-switchover of pump suction from the condensate tank to the suppression pool will require RCIC to be removed from service. CP&L has elected to perform this work during the following outages:

Unit 2 - Late 1981
Unit 1 - Early 1982

Since the switchover is currently addressed in plant emergency procedures and can be performed from the Control Room, CP&L does not feel that the modification warrants the reduction in safety margin associated with doing the modification while operating with RCIC out of service (LCO).