



Carolina Power & Light Company

January 18, 1979

FILE: NG-3514(B)

SERIAL NO: GD-79-186

Office of Nuclear Reactor Regulation
ATTENTION: Mr. T. A Ippolito, Chief
Operating Reactors Branch No. 3
U. S. 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
REACTOR VESSEL WATER LEVEL INSTRUMENTATION
REQUEST FOR TECHNICAL SPECIFICATION CHANGE

Dear Mr. Ippolito:

In accordance with the Code of Federal Regulations, Title 10, Part 50.90 and Part 2.101, Carolina Power & Light Company hereby requests revisions to the Technical Specifications for its Brunswick Steam Electric Plant, Unit Nos. 1 and 2. These revisions concern operability requirements for reactor vessel water level instrumentation, and they are necessary to allow CP&L to perform maintenance and modification work to the reactor vessels and ancillary systems.

This request and backup information were discussed among CP&L representatives and NRC Staff personnel on January 18, 1979, after being telecopied to NRC on January 17. NRC stated that they would initiate processing an emergency temporary technical specification change for Unit 1 to be valid for the current refueling outage, based on this submittal. This submittal is requesting a permanent technical specification revision for both Brunswick Unit 1 and Unit 2; however, more time will be necessary for the Staff to perform the additional in-depth review required prior to issuing a permanent revision to technical specifications. The new technical specification pages necessary to implement the requested revisions are attached to this letter.

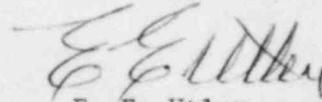
During the Brunswick Steam Electric Plant Unit 1 refueling outage, which is presently in progress, there are several tasks scheduled which will require in vessel work. In order that this work may be performed, the vessel water level must be lowered below the Level #1 and Level #2 Reactor Vessel Low Water level setpoints. Because of the operability requirements for instruments B21-LIS-N017 A, B, C, and D (see Table 3.3.2-1, Isolation Actuation Instrumentation, item 5.a., BSEP Unit 1 Technical Specifications, page #3/4 3-15) valve groups 2, 3, 6, and 8 would be isolated at this lowered water level.

Since shutdown cooling and a means of level control and water chemistry control must be maintained while this work is in progress, the isolations initiated by this low water level must be defeated. Reactor vessel water chemistry control and shutdown cooling will be maintained using the normal systems installed for this purpose. Vessel water level will be controlled by feeding with the control rod drive system and bleeding with the reactor water cleanup system. The vessel water level will be monitored using specially installed instrumentation. This instrumentation is designed such that the water level is lowered to the desired level, that level can then be monitored for a range of + or - 15 inches about this desired level. Alarms and level indicators are provided on the refueling floor and in the control room. The control room monitoring and alarm function will use a normally installed reactor water level recorder and annunciator which will alarm if the water level deviates from the desired level by + or - 5 inches. The refueling floor will have a local indicator for level and a horn alarm at + or - 5 inches which will be audible on the refueling floor as well as in the vessel. A failure of any electrical or mechanical component of this monitoring system will actuate one of the alarms. The water level will be lowered to a point which will allow the work to be accomplished as well as maximize the shielding from in vessel radiation sources. Should all forms of level control stated above fail, there still remains the Low Level #3 ECCS initiation of the various low pressure cooling systems of Technical Specification 3/4.5.3 to maintain vessel inventory.

In accordance with 10CFR170.12(c), we have determined that this request constitutes one Class III amendment because it involves a single technical issue and one Class I amendment for a duplicate unit. Our check for \$4,400 is enclosed as payment for these amendment fees.

If your staff has any questions concerning this request, we will be glad to discuss them with you. Thank you for your consideration and attention to this matter.

Yours very truly,



E. E. Utley
Senior Vice President
Power Supply

JAM/bwb
Attachments

Sworn to and subscribed before me this 18th day of January, 1979.

Franklin Murray
Notary Public

My Commission Expires: October 4, 1981



SPECIAL TEST EXCEPTIONS

3/4.10.5 REACTOR VESSEL WATER LEVEL

LIMITING CONDITION FOR OPERATION

3.10.5 The requirement of Specification 3.3.2, Table 3.3.2-1, item 5.a that instrument numbers B21-LIS-N017 A, B, C, and D be operational in conditions 4 and 5 may be suspended for maintenance and modification work.

APPLICABILITY: CONDITIONS 4 and 5 with fuel in the vessel

ACTION:

- A. Suspend all operations which have a potential for draining the vessel.
- B. A water level monitoring and alarm system shall be provided in the control room.
- C. Verify that ECCS actuation instruments B21-LIS-N031 A, B, C, and D for reactor vessel low water level #3 are operable per Specification 3.3.3.
- D. If the water level monitoring and alarm instrumentation of Action B. becomes inoperable, return the instrumentation to operable status within 12 hours or suspend all in vessel work and raise the reactor water level above low level #1 within the following 24 hours.
- E. If the reactor vessel water level decreases to -10 inches from the desired level, the reactor vessel shall be evacuated and the operator shall isolate and provide makeup water to the reactor vessel as necessary.

SURVEILLANCE REQUIREMENT

4.10.5 The water level monitoring instrumentation of Specification 3.10.5 action B. shall be verified operable at least once per week with a channel functional test.

SPECIAL TEST EXCEPTIONS

3/4.10.5 REACTOR VESSEL WATER LEVEL

LIMITING CONDITION FOR OPERATION

3.10.5 The requirement of Specification 3.3.2, Table 3.3.2-1, item 5.a that instrument numbers B21-LIS-NO17 A, B, C, and D be operational in conditions 4 and 5 may be suspended for maintenance and modification work.

APPLICABILITY: CONDITIONS 4 and 5 with fuel in the vessel

ACTION:

- A. Suspend all operations which have a potential for draining the vessel.
- B. A water level monitoring and alarm system shall be provided in the control room.
- C. Verify that ECCS actuation instruments B21-LIS-NO31 A, B, C, and D for reactor vessel low water level #3 are operable per Specification 3.3.3.
- D. If the water level monitoring and alarm instrumentation of Action B. becomes inoperable, return the instrumentation to operable status within 12 hours or suspend all in vessel work and raise the reactor water level above low level #1 within the following 24 hours.
- E. If the reactor vessel water level decreases to -10 inches from the desired level, the reactor vessel shall be evacuated and the operator shall isolate and provide makeup water to the reactor vessel as necessary.

SURVEILLANCE REQUIREMENT

4.10.5 The water level monitoring instrumentation of Specification 3.10.5 action B. shall be verified operable at least once per week with a channel functional test.