August 13, 1984

Docket Nos. 50-325/324

Mr. E. E. Utley
Executive Vice President
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Utley:

The Commission has issued the enclosed Amendment Nos. 73 and 99 to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the technical specifications in response to your submittal of March 2, 1984.

The amendments incorporate Technical Specifications in response to NRC Generic Letter No. 83-36 dated November 1, 1983. These Technical Specifications are related to NUREG-0737 items which have to do with monitoring of radiation releases, containment conditions and control room habitability during and following accident conditions and impose additional limiting conditions for operation and surveillance requirements for the instrumentation for measuring the above quantities.

A copy of the related Safety Evaluation is also enclosed.

Sincerely,

Marshall Grotenhuis, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:
1. Amendment No. 73 to License No. DPR-71
2. Amendment No. 99 to License No. DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

DISTRIBUTION

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7/25/84	7/26/84	7/26/84	7/31/84	8/1/84

8/10/84

Mr. E. E. Utley
Carolina Power & Light Company
Brunswick Steam Electric Plant, Units 1 and 2

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 73
License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Carolina Power & Light Company (the licensee) dated March 2, 1984 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-71 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 73, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: August 13, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 73

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Revise the Appendix A Technical Specifications as follows:

Remove	Insert
V	V
3/4 3-50	3/4 3-50
3/4 3-51	3/4 3-51
3/4 3-52	3/4 3-52
3/4 3-52a	3/4 3-52a
3/4 3-52b	3/4 3-52b
3/4 3-52c	3/4 3-52c
3/4 3-52d	3/4 3-52d
3/4 3-54	3/4 3-54
B 3/4 3-3	B 3/4 3-3

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.5.3 The accident monitoring instrumentation channels shown in Table 3.3.5.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3.5.3-1.

ACTION:

a. With one or more accident monitoring instrumentation channels inoperable, take the ACTION required by Table 3.3.5.3-1.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.5.3 Each of the above required accident monitoring instrumentation channels shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.5.3-1.

TABLE 3.3.5.3-1
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT AND INSTRUMENT NUMBER	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
1. Reactor Vessel Pressure (B21-PI-R004A,B; C32-LPR-R608; and C32-PT-N005A,B)	2	1	1, 2	82
2. Reactor Vessel Water Level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B; B21-LT-N037; and B21-LTM-N037-1)	2	1	1, 2	82
3. Suppression Chamber Water Level (CAC-LT-2601; CAC-LI-2601-1) (CAC-LT-2602; CAC-LR-2602)	2	1	1, 2	82
4. Suppression Chamber Water Temperature (CAC-TR-1258-14, 21; and C91-P602)	2	1	1, 2	82
5. Suppression Chamber Atmosphere Temperature (CAC-TR-1258-17 thru 20; and C91-P602)	2	1	1, 2	82
6. Drywell Pressure (CAC-PI-4176; CAC-PT-4176; CAC-PR-1257-1; and CAC-PT-4175)	2	1	1, 2	82
7. Drywell Temperature (CAC-TR-1258-1 thru 13, 22, 23, 24 and C91-P602)	2	1	1, 2	82
8. Drywell Radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262; CAC-AQH-1262-1,2,3)	2	2	1, 2, 3	81

TABLE 3.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT AND INSTRUMENT NUMBER	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
9. Drywell Oxygen Concentration (CAC-AT-4409-37; CAC-AI-4409-40; CAC-X-XY-4348-2; CAC-X-XY-4349-2; CAC-AR-4409-41) (CAC-AT-4410-37; CAC-AI-4410-40; CAC-X-XY-4362-2; CAC-X-XY-4363-2; CAC-AR-4410-41)	2(a)	1(a)	1, 2	82
10. Drywell Hydrogen Concentration Analyzer and Monitor (CAC-AT-4409-38; CAC-AI-4409-32; CAC-X-XY-4348-1; CAC-X-XY-4349-1; CAC-AR-4409-42) (CAC-AT-4410-38; CAC-AI-4410-32; CAC-X-XY-4362-1; CAC-X-XY-4363-1; CAC-AR-4410-42)	2(a)	1(a)	1, 2	82
11. Drywell Area Radiation Monitors (D22-RM-4195; D22-RI-4195) (D22-RM-4196; D22-RI-4196) (D22-RM-4197; D22-RI-4197) (D22-RM-4198; D22-RI-4198)	2	2	1, 2	81
12. Safety/Relief Valve Position Indication a. Primary - Sonic (B21-FY-4157 thru 4167) b. Secondary - Temp. (B21-TR-R614, points 1-11)	2/valve	1/valve	1, 2	82

TABLE 3.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT AND INSTRUMENT NUMBER	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
13. Turbine Building Ventilation Monitor# (D12-RE-4561; D12-RE-4562; D12-RR-4548-2; D12-RR-4548-3)	1	1	1, 2, 3	81
14. Off-gas Stack Ventilation Monitor# (D12-RE-4573; D12-RE-4574; D12-RR-4599-2; D12-RR-4599-3)	1	1	1, 2, 3	81

High range noble gas monitors

(a) An OPERABLE instrument channel shall consist of the AT instrument and either the AI instrument or the XY-XY-AR instruments.

Table 3.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION
ACTION STATEMENTS

ACTION 81 -

With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours, and:

1) either restore at least the minimum number of operable channel(s) to OPERABLE status within 7 days of the event, or

2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

ACTION 82 -

a. With the number of OPERABLE channels one less than the required number of channels shown in Table 3.3.5.3-1, restore the inoperable channel to OPERABLE status within 31 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels less than the minimum channels OPERABLE requirements of Table 3.3.5.3-1, restore at least the minimum number of operable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

TABLE 4.3.5.3-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
1. Reactor Vessel Pressure (B21-PI-R004A,B; C32-LPR-R608; and C32-PT-N005A,B)	M	R
2. Reactor Vessel Water Level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B; B21-LT-N037; and B21-LTM-N037-1)	M	R
3. Suppression Chamber Water Level (CAC-LT-2601; CAC-LI-2601-1) (CAC-LT-2602; CAC-LR-2602)	M	R
4. Suppression Chamber Water Temperature (CAC-TR-1258-14, 21; and C91-P602)	M	R
5. Suppression Chamber Atmosphere Temperature (CAC-TR-1258-17 thru 20; and C91-P602)	M	R
6. Drywell Pressure (CAC-PI-4176; CAC-PT-4176; CAC-PR-1257-1; and CAC-PT-4175)	M	R
7. Drywell Temperature (CAC-TR-1258-1 thru 13, 22, 23, 24; and C91-P602)	M	R
8. Drywell Radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262; CAC-AQH-1262-1,2,3)	M	R
9. Drywell Oxygen Concentration (CAC-AT-4409-37; CAC-AI-4409-40; CAC-X-XY-4348-2; CAC-X-XY-4349-2; CAC-AR-4409-41) (CAC-AT-4410-37; CAC-AI-4410-40; CAC-X-XY-4362-2; CAC-X-XY-4363-2; CAC-AR-4410-41)	M	R

TABLE 4.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
10. Drywell Hydrogen Concentration Analyzer and Monitor (CAC-AT-4409-38; CAC-AI-4409-32; CAC-X-XY-4348-1; CAC-X-XY-4349-1; CAC-AR-4409-42) (CAC-AT-4410-38; CAC-AI-4410-32; CAC-X-XY-4362-1; CAC-X-XY-4363-1; CAC-AR-4410-42)	M	R
11. Drywell Area Radiation Monitor (D22-RM-4195; D22-RI-4195) (D22-RM-4196; D22-RI-4196) (D22-RM-4197; D22-RI-4197) (D22-RM-4198; D22-RI-4198)	M	R*
12. Safety Relief Valve Position Indication		
a. Primary - Sonic (B21-FY-4157 thru 4167)	M	R
b. Secondary - Temp. (B21-TR-R614, points 1-11)	M	R
13. Turbine Building Ventilation Monitor# (D12-RE-4561; D12-RE-4562; D12-RR-4548-2; D12-RR-4548-3)	M	R
14. Off-gas Stack Ventilation Monitor# (D12-RE-4573; D12-RE-4574; D12-RR-4599-2; D12-RR-4599-3)	M	R

* CHANNEL CALIBRATION shall consist of an electronic calibration of the channel, not including the detector, for range decades above 10R/hr and a one point calibration check of the detector below 10R/hr with an installed or portable gamma source.
# High range noble gas monitors.

INSTRUMENTATION

CHLORINE DETECTION SYSTEM

LIMITING CONDITION FOR OPERATION

3.3.5.5 A chlorine detection system shall be OPERABLE with the alarm setpoint adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm.

APPLICABILITY: OPERATIONAL CONDITIONS 1*, 2*, and 3*.

ACTION:

a. With the chlorine detection system inoperable, restore the inoperable detection system to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.5.5 The chlorine detection system (X-AT-2977) shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

*With chlorine within the Exclusion Area.

MONITORING INSTRUMENTATION (Continued)

3/4.3.5.2 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of CFR 50.

3/4.3.5.3 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess important variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1975 and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short Term Recommendations."

3/4.3.5.4 SOURCE RANGE MONITORS

The source range monitors provide the operator with information on the status of the neutron level in the core at very low power levels during start-up. At these power levels, reactivity additions should not be made without this flux level information available to the operator. When the intermediate range monitors are on scale adequate information is available without the SRMs and they can be retracted.

3/4.3.5.5 CHLORINE DETECTION SYSTEM

The OPERABILITY of the chlorine detection systems ensures that an accidental chlorine release will be detected promptly and the necessary protective actions will be automatically initiated to provide protection for control room personnel. Upon detection of a high concentration of chlorine, the control room emergency ventilation system will automatically isolate the control room and initiate operation in the recirculation mode to provide the required protection. The detection systems required by this specification are consistent with the recommendations of Regulatory Guide 1.95 "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release."

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 99
License No. DPR-62

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Carolina Power & Light Company (the licensee) dated March 2, 1984 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-62 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 99 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the
Technical Specifications

Date of Issuance: August 13, 1984

ATTACHMENT TO LICENSE AMENDMENT NO. 99

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Revise the Appendix A Technical Specifications as follows:

Remove	Insert
V	V
3/4 3-50	3/4 3-50
3/4 3-51	3/4 3-51
3/4 3-52	3/4 3-52
3/4 3-52a	3/4 3-52a
3/4 3-52b	3/4 3-52b
3/4 3-52c	3/4 3-52c
3/4 3-52d	3/4 3-52d
3/4 3-54	3/4 3-54
B 3/4 3-3	B 3/4 3-3

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.5.3 The accident monitoring instrumentation channels shown in Table 3.3.5.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3.5.3-1.

ACTION:

a. With one or more accident monitoring instrumentation channels inoperable, take the ACTION required by Table 3.3.5.3-1.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.5.3 Each of the above required accident monitoring instrumentation channels shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.5.3-1.

TABLE 3.3.5.3-1

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT AND INSTRUMENT NUMBER	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
1. Reactor Vessel Pressure (B21-PI-R004A,B; C32-LPR-R608; and C32-PT-N005A,B)	2	1	1, 2	82
2. Reactor Vessel Water Level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B; B21-LT-N037; and B21-LTM-N037-1)	2	1	1, 2	82
3. Suppression Chamber Water Level (CAC-LT-2601; CAC-LI-2601-1) (CAC-LT-2602; CAC-LR-2602)	2	1	1, 2	82
4. Suppression Chamber Water Temperature (CAC-TR-1258-14, 21; and C91-P602)	2	1	1, 2	82
5. Suppression Chamber Atmosphere Temperature (CAC-TR-1258-17 thru 20; and C91-P602)	2	1	1, 2	82
6. Drywell Pressure (CAC-PI-4176; CAC-PT-4176; CAC-PR-1257-1; and CAC-PT-4175)	2	1	1, 2	82
7. Drywell Temperature (CAC-TR-1258-1 thru 13, 22, 23, 24 and C91-P602)	2	1	1, 2	82
8. Drywell Radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262; CAC-AQH-1262-1,2,3)	2	2	1, 2, 3	81

TABLE 3.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT AND INSTRUMENT NUMBER	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
9. Drywell Oxygen Concentration (CAC-AT-4409-37; CAC-AI-4409-40; CAC-X-XY-4348-2; CAC-X-XY-4349-2; CAC-AR-4409-41) (CAC-AT-4410-37; CAC-AI-4410-40; CAC-X-XY-4362-2; CAC-X-XY-4363-2; CAC-AR-4410-41)	2(a)	1(a)	1, 2	82
10. Drywell Hydrogen Concentration Analyzer and Monitor (CAC-AT-4409-38; CAC-AI-4409-32; CAC-X-XY-4348-1; CAC-X-XY-4349-1; CAC-AR-4409-42) (CAC-AT-4410-38; CAC-AI-4410-32; CAC-X-XY-4362-1; CAC-X-XY-4363-1; CAC-AR-4410-42)	2(a)	1(a)	1, 2	82
11. Drywell Area Radiation Monitors (D22-RM-4195; D22-RI-4195) (D22-RM-4196; D22-RI-4196) (D22-RM-4197; D22-RI-4197) (D22-RM-4198; D22-RI-4198)	2	2	1, 2	81
12. Safety/Relief Valve Position Indication	2/valve	1/valve	1, 2	82
a. Primary - Sonic (B21-FY-4157 thru 4167)				
b. Secondary - Temp. (B21-TR-R614, points 1-11)				

TABLE 3.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT AND INSTRUMENT NUMBER	REQUIRED NUMBER OF CHANNELS	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
13. Turbine Building Ventilation Monitor# (D12-RE-4561; D12-RE-4562; D12-RR-4548-2; D12-RR-4548-3)	1	1	1, 2, 3	81
14. Off-gas Stack Ventilation Monitor# (D12-RE-4573; D12-RE-4574; D12-RR-4599-2; D12-RR-4599-3)	1	1	1, 2, 3	81

High range noble gas monitors.

(a) An OPERABLE instrument channel shall consist of the AT instrument and either the AI instrument or the XY-XY-AR instruments.

Table 3.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION
ACTION STATEMENTS

ACTION 81 -

With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours, and:

1) either restore at least the minimum number of operable channel(s) to OPERABLE status within 7 days of the event, or

2) prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 14 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

ACTION 82 -

a. With the number of OPERABLE channels one less than the required number of channels shown in Table 3.3.5.3-1, restore the inoperable channel to OPERABLE status within 31 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels less than the minimum channels OPERABLE requirements of Table 3.3.5.3-1, restore at least the minimum number of operable channel(s) to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

TABLE 4.3.5.3-1

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
1. Reactor Vessel Pressure (B21-PI-R004A,B; C32-LPR-R608; and C32-PT-N005A,B)	M	R
2. Reactor Vessel Water Level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B; B21-LT-N037; and B21-LTM-N037-1)	M	R
3. Suppression Chamber Water Level (CAC-LT-2601; CAC-LI-2601-1) (CAC-LT-2602; CAC-LR-2602)	M	R
4. Suppression Chamber Water Temperature (CAC-TR-1258-14, 21; and C91-P602)	M	R
5. Suppression Chamber Atmosphere Temperature (CAC-TR-1258-17 thru 20; and C91-P602)	M	R
6. Drywell Pressure (CAC-PI-4176; CAC-PT-4176; CAC-PR-1257-1; and CAC-PT-4175)	M	R
7. Drywell Temperature (CAC-TR-1258-1 thru 13, 22, 23, 24; and C91-P602)	M	R
8. Drywell Radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262; CAC-AQH-1262-1,2,3)	M	R
9. Drywell Oxygen Concentration (CAC-AT-4409-37; CAC-AI-4409-40; CAC-X-XY-4348-2; CAC-X-XY-4349-2; CAC-AR-4409-41) (CAC-AT-4410-37; CAC-AI-4410-40; CAC-X-XY-4362-2; CAC-X-XY-4363-2; CAC-AR-4410-41)	M	R

TABLE 4.3.5.3-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
10. Drywell Hydrogen Concentration Analyzer and Monitor (CAC-AT-4409-38; CAC-AI-4409-32; CAC-X-XY-4348-1; CAC-X-XY-4349-1; CAC-AR-4409-42) (CAC-AT-4410-38; CAC-AI-4410-32; CAC-X-XY-4362-1; CAC-X-XY-4363-1; CAC-AR-4410-42)	M	R
11. Drywell Area Radiation Monitor (D22-RM-4195; D22-RI-4195) (D22-RM-4196; D22-RI-4196) (D22-RM-4197; D22-RI-4197) (D22-RM-4198; D22-RI-4198)	M	R*
12. Safety Relief Valve Position Indication		
a. Primary - Sonic (B21-FY-4157 thru 4167)	M	R
b. Secondary - Temp. (B21-TR-R614, points 1-11)	M	R
13. Turbine Building Ventilation Monitor# (D12-RE-4561; D12-RE-4562; D12-RR-4548-2; D12-RR-4548-3)	M	R
14. Off-gas Stack Ventilation Monitor# (D12-RE-4573; D12-RE-4574; D12-RR-4599-2; D12-RR-4599-3)	M	R

* CHANNEL CALIBRATION shall consist of an electronic calibration of the channel, not including the detector, for range decades above 10R/hr and a one point calibration check of the detector below 10R/hr with an installed or portable gamma source.

\# High range noble gas monitors.

INSTRUMENTATION

CHLORINE DETECTION SYSTEM

LIMITING CONDITION FOR OPERATION

3.3.5.5 A chlorine detection system shall be OPERABLE with the alarm setpoint adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm.

APPLICABILITY: OPERATIONAL CONDITIONS 1*, 2*, and 3*.

ACTION:

a. With the chlorine detection system inoperable, restore the inoperable detection system to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.5.5 The chlorine detection system (X-AT-2977) shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

*With chlorine within the Exclusion Area.

MONITORING INSTRUMENTATION (Continued)

3/4.3.5.2 REMOTE SHUTDOWN MONITORING INSTRUMENTATION

The OPERABILITY of the remote shutdown monitoring instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost, and is consistent with General Design Criterion 19 of CFR 50.

3/4.3.5.3 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess important variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, "Instrumentation for Light Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1975, and NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations."

3/4.3.5.4 SOURCE RANGE MONITORS

The source range monitors provide the operator with information on the status of the neutron level in the core at very low power levels during start-up. At these power levels, reactivity additions should not be made without this flux level information available to the operator. When the intermediate range monitors are on scale, adequate information is available without the SRMs and they can be retracted.

3/4.3.5.5 CHLORINE DETECTION SYSTEM

The OPERABILITY of the chlorine detection systems ensures that an accidental chlorine release will be detected promptly and the necessary protective actions will be automatically initiated to provide protection for control room personnel. Upon detection of a high concentration of chlorine, the control room emergency ventilation system will automatically isolate the control room and initiate operation in the recirculation mode to provide the required protection. The detection systems required by this specification are consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release."

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 73 TO FACILITY LICENSE NO. DPR-71 AND

AMENDMENT NO. 99 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

1.0 Introduction

By letter dated March 2, 1984, the Carolina Power & Light Company (the licensee) submitted proposed changes to the Technical Specifications appended to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The proposed changes would modify the Technical Specifications in response to NRC Generic Letter No. 83-36 dated November 1, 1983. These Technical Specifications are related to NUREG-0737 items which have to do with monitoring of radiation releases, containment conditions and control room habitability during and following accident conditions and impose additional limiting conditions for operation and surveillance requirements for the instrumentation for measuring the above quantities.

2.0 Discussion

In November 1980, the staff issued NUREG-0737, "Clarification of TMI Action Plan Requirements" which included all TMI Action Plan items approved by the Commission for implementation at nuclear power reactors. NUREG-0737 identifies those items for which Technical Specifications (TSs) were scheduled for implementation after December 31, 1981. The staff provided guidance on the scope of Technical Specifications for all of these items in Generic Letter 83-36. Generic Letter 83-36 was issued to all Boiling Water Reactor (BWR) licensees on November 1, 1983. In this Generic Letter, the staff requested licensees to:

a. Review their facility's Technical Specifications to determine if they were consistent with the guidance provided in the Generic Letter, and

b. Submit an application for a license amendment where deviations or absence of Technical Specifications were found.

By letter dated March 2, 1984, Carolina Power & Light Company (the licensee) responded to Generic Letter 83-36 by submitting Technical Specification change requests for Brunswick Units 1 and 2. This evaluation covers the following TMI Action Plan items:

-Noble Gas Effluent Monitors (II.F.1.1)
-Containment High-Range Radiation Monitor (II.F.1.3)
-Containment Pressure Monitor (II.F.1.4)
-Containment Hydrogen Monitor (II.F.1.6) Unit 2 only
-Control Room Habitability Requirements (III.D.3.4)

Other TMI action plan items covered in Generic Letter 83-36 are as follows:

-The TSs for Item II.F.1.2 - Sampling and Analysis of Plant Effluents have been completed by Amendment No. 63 for Brunswick Unit 1 and Amendment No. 81 for Brunswick Unit 2.

-The TSs for Item II.F.1.5 - Containment Water Level Monitor, Have been completed by Amendment No. 63 for Brunswick Unit 1 and Amendment No. 81 for Brunswick Unit 2.

-The TSs for Item II.F.1.6 - Containment Hydrogen Monitor have been completed by Amendment No. 63 for Brunswick Unit 1.

-The TSs for Item II.B.3 - Post-Accident Sampling, have been completed by Amendment No. 70 for Brunswick Unit 1 and Amendment No. 98 for Brunswick Unit 2.

3.0 Evaluation:

a. Noble Gas Effluent Monitors (II.F.1.1)

The licensee has supplemented the existing normal range monitors to provide noble gas monitoring in accordance with Item II.F.1.1. Proposed TSs were submitted that meet the intent of the guidelines provided in our Generic Letter 83-36. We conclude that the TSs for Item II.F.1.1 are acceptable.

b. Containment High-Range Radiation Monitor (II.F.1.3)

The licensee has installed two in-containment monitors in each Brunswick Unit that is consistent with the guidance of TMI Action Plan Item II.F.1.3. Generic Letter 83-36 provided guidance for limiting conditions of operation and surveillance TSs for these monitors. The licensee proposed TSs which are consistent with the guidance provided in our Generic Letter 83-36. We conclude that the TSs for Item II.F.1.3 are acceptable.

c. Containment Pressure Monitor (II.F.1.4)

Each Brunswick Unit was provided with two supplementary channels of monitoring containment pressure following an accident. The licensee proposed TSs that are consistent with the guidelines contained in Generic Letter 83-36. We conclude that the TSs for Item II.F.1.4 are acceptable.

d. Containment Hydrogen Monitor (II.F.1.6)

Brunswick Unit 2 is currently installing containment hydrogen monitors that provide the capability required by TMI Action Plan Item II.F.1.6. The proposed Brunswick Unit 2 TSs contain appropriate limiting conditions of operation and surveillance for these monitors. We conclude that the proposed TSs are acceptable as they are consistent with the guidance contained in Generic Letter 83-36.

e. Control Room Habitability (II.D.3.4)

The guidance of NUREG-0737 requires assurance on the part of the licensee that control room operators will be adequately protected against the effects of an accidental release of toxic and/or radiocative gases from sources either onsite or offsite. Generic Letter 83-36 provided guidance on the toxic gas detection system, and control room emergency air filtration system.

The licensee has approved TSs for the chlorine detection system in place. However, in response to Generic Letter 83-36, the licensee has changed the alarm setpoint from 1ppm to 5ppm. We have reviewed the proposed change to the TSs for the chlorine detection system and conclude that the proposed TSs are acceptable as they meet the intent of our guidance contained in generic Letter 83-36.

4.0 Environmental Considerations

The amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 Conclusions

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Karsch and M. Grotenhuis

Dated: August 13, 1984