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Docket Nos. 50-325
50-324

March 16, 1981

Mr. J. A. Jones
Senior Executive Vice President
Carolina Power & Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Dear Mr. Jones:

The Commission has issued the enclosed Amendment Nos. 34 and 55 to Facility Operating Licenses Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Licenses and Technical Specifications in response to your submittal of September 16, 1980.

These changes to the Licenses and Technical Specifications involve incorporation of certain of the TMI-2 Lessons Learned Category "A" requirements. These requirements concern (1) Valve Position Indication, (2) Shift Technical Advisor Augmentation, (3) Integrity of Systems Outside Containment and (4) Iodine Monitoring.

Copies of the Safety Evaluation and a related Notice of Issuance are also enclosed.

Sincerely,

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

RECEIVED
MAR 25 1981
U.S. NUCLEAR REGULATORY COMMISSION

Enclosures:
1. Amendment No. 34 to DPR-71
2. Amendment No. 55 to DPR-62
3. Safety Evaluation
4. Notice

cc w/encls:
See next page

F.R. NOTICE + AMENDMENT

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OFFICE	DL:ORB#2	DL:ORB#2	DL:ORB#2	DL:OR	OELD		
SURNAME	SNorris	JHannon:ws	TAIppolito	TMNovak	KARMAT		
DATE	3/9/81	3/9/81	3/9/81	3/9/81	3/11/81		

NRC FORM 318 (10/80) NRCM 0240 OFFICIAL RECORD COPY ☆ USGPO: 1980—329-824

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

March 16, 1981

Docket Nos. 50-325
50-324

Mr. J. A. Jones
Senior Executive Vice President
Carolina Power & Light Company
336 Fayetteville Street
Raleigh, North Carolina 27602

Dear Mr. Jones:

The Commission has issued the enclosed Amendment Nos. 34 and 55 to Facility Operating Licenses Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2. The amendments consist of changes to the Licenses and Technical Specifications in response to your submittal of September 16, 1980.

These changes to the Licenses and Technical Specifications involve incorporation of certain of the TMI-2 Lessons Learned Category "A" requirements. These requirements concern (1) Valve Position Indication, (2) Shift Technical Advisor Augmentation, (3) Integrity of Systems Outside Containment and (4) Iodine Monitoring.

Copies of the Safety Evaluation and a related Notice of Issuance are also enclosed.

Sincerely,

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosures:
1. Amendment No. 34 to DPR-71
2. Amendment No. 55 to DPR-62
3. Safety Evaluation
4. Notice

cc w/encls:
See next page

Mr. J. A. Jones
Carolina Power & Light Company

cc:

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Director, Criteria and Standards
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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 NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34
License No. DPR-71

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

   A. The application for amendment by Carolina Power & Light Company dated September 16, 1980, 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, Facility Operating License No. DPR-71 is hereby amended by revising paragraph 2.C.(2) and adding paragraphs 2.I and 2.J to read as follows:

   2.C.(2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 34 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

2.I Systems Integrity

The licensee shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and

2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

2.J Iodine Monitoring

The licensee shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,

2. Procedures for monitoring, and

3. Provisions for maintenance of sampling and analysis equipment.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 16, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 34

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Remove the following pages and replace with identically numbered pages.

3/4 3-51 / 3/4 3-52

B3/4 3-3 / B3/4 3-4

6-5 / 6-6

The underlined pages are changed. Overleaf pages are provided for convenience.

TABLE 3.3.5.3-1

POST-ACCIDENT MONITORING INSTRUMENTATION

	INSTRUMENT AND INSTRUMENT NUMBER	MINIMUM NO. OF OPERABLE INSTRUMENT CHANNELS
1.	Reactor vessel water level (B21-LITS-NO26A, B; B21-LR-615; B21-LI-R604A, B and B21-LITS-NO37)	2
2.	Reactor vessel pressure (B21-PI-R004A, B; C32-LPR-R608 and C32-PT-N005A, B)	2
3.	Containment pressure (CAC-PI-2599; CAC-PT-2559; CAC-PR-1257-1 and CAC-PT-1257-1)	2
4.	Containment pressure (CAC-TR-1258-1 through 13, 22, 23, 24 and C91-P602)	2
5.	Suppression chamber atmosphere temperature (CAC-TR-1258-17 through 20 and C91-P602)	2
6.	Suppression chamber water level (CAC-LI-2601-3; CAC-LA-2602; CAC-LT-2601; CAC-LT-2602 and CAC-LY-2601-1)	2
7.	Suppression chamber water temperature (CAC-TR-1258-14, 21 and C91-P602)	2
8.	Containment radiation (CAC-AR-1260; CAC-AQH-1260-1, 2, 3; CAC-AR-1261; CAC-AQH-1261-1, 2, 3; CAC-AR-1262 and CAC-AQH-1262-1, 2, 3)	2
9.	Containment oxygen (CAC-AT-1259-2; CAC-AR-1259; CAC-AT-1263-2 and CAC-AR-1263)	2
10.	Containment hydrogen (CAC-AT-1959-1; CAC-AR-1259; CAC-AT-1263-1 and CAC-AR-1263)	2
11.	Safety relief valve position indication: Primary - Sonic (B21-FY-4157 through 4167) Secondary - Temp. (B21-TR-R614 points 1-11)	1/valve

TABLE 4.3.5.3-1

POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Reactor vessel water level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B and B21-LITS-N037)	M	R
2.	Reactor vessel pressure (B21-PI-R004A,B; C32-LPR-R608 and C32-PT-N005A,B)	M	R
3.	Containment pressure (CAC-PI-2599; CAC-PT-2599; CAC-PR-1257-1 and CAC-PT-1257-1)	M	R
4.	Containment temperature (CAC-TR-1258-1 thru 13, 22, 23, 24 and C91-P602)	M	R
5.	Suppression chamber atmosphere temperature (CAC-TR-1258-17 thru 20 and C91-P602)	M	R
6.	Suppression chamber water level (CAC-LI-2601-3; CAC-LR-2602; CAC-LT-2601; CAC-LT-2602 and CAC-LY-2601-1)	M	R
7.	Suppression chamber water temperature (CAC-TR-1258-14, 21 and C91-P602)	M	R
8.	Containment radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262 and CAC-AQH-1262-1,2,3)	M	R
9.	Containment oxygen concentration (CAC-AT-1259-2; CAC-AR-1259; CAC-AT-1263-2 and CAC-AR-1263)	M	R
10.	Containment hydrogen concentration (CAC-AT-1259-1; CAC-AR-1259; CAC-AT-1263-1 and CAC-AR-1263)	M	R
11.	Safety relief valve position indication (Primary-Sonic) (B21-FY-4157 thru 4167)	M	R
12.	Safety relief valve position indication (Secondary-Temperature) (B21-TR-R614 points 1 thru 11)	M	R

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 POST-ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the post-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 startup. 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 adaquate information is available without the SRM's and they can be retracted.

3/4.3.5.5 CHLORINE DETECTION SYSTEM

The OPERABILITY of the chlorine detection systems ensures that an accidential chlorine release will be detected promptly and the necessary protective actions will be automatically initiated to provide protection for control room personel. 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 specifications are consistent with the recommendations of Regulatory Guide 1.95 "Protection of Nuclear Power Plant Control Room Operators against an accidental Chlorine Release.

MONITORING INSTRUMENTATION (Continued)

3/4.3.5.6 CHLORIDE INTRUSION MONITORS

The chloride intrusion monitors provide adequate warning of any leakage in the condenser or hotwell so that actions can be taken to mitigate the consequences of such intrusion in the reactor coolant system. With only a minimum number of instruments available increased sampling frequency provides adequate information for the same purpose.

3/4.3.5.7 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensure that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, increasing the frequency of fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.6 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION

The anticipated transient without scram (ATWS) recirculation pump trip system provides a means of limiting the consequences of the unlikely occurrence of a failure to scram during an anticipated transient. The response of the plant to this postulated event falls within an envelope of study events given in General Electric Company Topical Report NEDO-10349, dated March, 1971.

The end-of-cycle recirculation pump trip (EOC-RPT) system is a part of the Reactor Protection System and is a safety supplement to the reactor trip. The purpose of the EOC-RPT is to recover the loss of thermal margin which occurs at the end-of-cycle. The physical phenomenon involved is that the void reactivity feedback due to a pressurization transient can add positive reactivity to the reactor system at a faster rate than the control rods add negative scram reactivity. Each EOC-RPT system trips both recirculation pumps, reducing coolant flow in order to reduce the void collapse in the core during two of the most limiting pressurization events. The two events for which the EOC-RPT protective

TABLE 6.2.2-1

MINIMUM SHIFT CREW COMPOSITION#

Condition of Unit 1 - Unit 2 in CONDITION 1, 2 or 3

LICENSE CATEGORY	APPLICABLE OPERATIONAL CONDITIONS	
	1, 2, 3	4 & 5
SOL**	2	2*
OL**	3	2
Non-Licensed	4	3
Shift Technical Advisor	1	0

Condition of Unit 1 - Unit 2 in CONDITION 4 or 5

LICENSE CATEGORY	APPLICABLE OPERATIONAL CONDITIONS	
	1, 2, 3	4 & 5
SOL**	2	1*
OL**	3	2
Non-Licensed	3	3
Shift Technical Advisor	1	0

Condition of Unit 1 - No Fuel in Unit 2

LICENSE CATEGORY	APPLICABLE OPERATIONAL CONDITIONS	
	1, 2, 3	4 & 5
SOL	1	1*
OL	2	1
Non-Licensed	2	1
Shift Technical Advisor	1	0

* Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE ALTERATIONS.

**Assumes each individual is licensed on both plants.

Shift crew composition, including an individual qualified in radiation protection procedures, may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2.2-1.

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the (Radiation Protection Manager) who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975 and (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Plant Fire Chief and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975.

6.5 REVIEW AND AUDIT

6.5.1 PLANT NUCLEAR SAFETY COMMITTEE (PNSC)

FUNCTION

6.5.1.1 The PNSC shall function to advise the General Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PNSC shall be composed of the:

Chairman:	Plant General Manager
Vice Chairman:	Operations Manager, Maintenance Manager, Technical - Administrative Manager or Director-Nuclear Safety and QA
Secretary:	Administrative Supervisor
Member:	Maintenance Supervisor (I&C)
Member:	Maintenance Supervisor (Mechanical)
Member:	Engineering Supervisor
Member:	Environmental and Radiation Control Supervisor
Member:	Quality Assurance Supervisor
Member:	Shift Operating Supervisors
Member:	Training Supervisor

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PNSC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PNSC activities at any one time.

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

CAROLINA POWER & LIGHT COMPANY

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 55
License No. DPR-62

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

   A. The application for amendment by Carolina Power & Light Company dated September 16, 1980, 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, Facility Operating License No. DPR-62 is hereby amended by revising paragraph 2.C.(2) and adding paragraphs 2.F and 2.G to read as follows:

   2.C.(2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 55 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

2.F Systems Integrity

The licensee shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and

2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

2.G Iodine Monitoring

The licensee shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,

2. Procedures for monitoring, and

3. Provisions for maintenance of sampling and analysis equipment.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 16, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 55

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Remove the following pages and replace with identically numbered pages.

3/4 3-51 / 3/4 3-52

B3/4 3-3 / B 3/4 3-4

6-5 / 6-6

Underlined pages are changed. Overleaf pages are provided for convenience.

TABLE 3.3.5.3-1

POST-ACCIDENT MONITORING INSTRUMENTATION

	INSTRUMENT AND INSTRUMENT NUMBER	MINIMUM NO. OF OPERABLE INSTRUMENT CHANNELS
1.	Reactor vessel water level (B21-LITS-N026A,B; B21-LR-615; B21-LI-R604A,B and B21-LITS-N037)	2
2.	Reactor vessel pressure (B21-PI-R004A, B; C32-LPR-R608 and C32-PT-N005A, B)	2
3.	Containment pressure (CAC-PI-2599; CAC-PT-2599; CAC-PR-1257-1 and CAC-PT-1257-1)	2
4.	Containment pressure (CAC-TR-1258-1 thru 13, 22, 23, 24 and C91-P602)	2
5.	Suppression chamber atmosphere temperature (CAC-TR-1258-17 thru 20 and C91-P602)	2
6.	Suppression chamber water level (CAC-LI-2601-3; CAC-LA-2602; CAC-LT-2601; CAC-LT-2602 and CAC-LY-2601-1)	2
7.	Suppression chamber water temperature (CAC-TR-1258-14, 21 and C91-P602)	2
8.	Containment radiation (CAC-AR-1260; CAC-AQH-1260-1, 2, 3; CAC-AR-1261; CAC-AQH-1261-1, 2, 3; CAC-AR-1262 and CAC-AQH-1262-1, 2, 3)	2
9.	Containment oxygen (CAC-AT-1259-2; CAC-AR-1259; CAC-AT-1263-2 and CAC-AR-1263)	2
10.	Containment hydrogen (CAC-AT-1959-1; CAC-AR-1259; CAC-AT-1263-1 and CAC-AR-1263)	2
11.	Safety relief valve position indication: Primary - Sonic (B21-FY-4157 thru 4167) Secondary - Temp. (B21-TR-R614 points 1-11)	1/valve

TABLE 4.3.5.3-1

POST-ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	INSTRUMENT AND INSTRUMENT NUMBER	CHANNEL CHECK	CHANNEL CALIBRATION
1.	Reactor vessel water level (B21-LITS-N026A,B; B21-LR-R615; B21-LI-R604A,B and B21-LITS-N037)	M	R
2.	Reactor vessel pressure (B21-PI-R004A,B; C32-LPR-R608 and C32-PT-N005A,B)	M	R
3.	Containment pressure (CAC-PI-2599; CAC-PT-2599; CAC-PR-1257-1 and CAC-PT-1257-1)	M	R
4.	Containment temperature (CAC-TR-1258-1 thru 13, 22, 23, 24 and C91-P602)	M	R
5.	Suppression chamber atmosphere temperature (CAC-TR-1258-17 thru 20 and C91-P602)	M	R
6.	Suppression chamber water level (CAC-LI-2601-3; CAC-LR-2602; CAC-LT-2601; CAC-LT-2602 and CAC-LY-2601-1)	M	R
7.	Suppression chamber water temperature (CAC-TR-1258-14, 21 and C91-P602)	M	R
8.	Containment radiation (CAC-AR-1260; CAC-AQH-1260-1,2,3; CAC-AR-1261; CAC-AQH-1261-1,2,3; CAC-AR-1262 and CAC-AQH-1262-1,2,3)	M	R
9.	Containment oxygen concentration (CAC-AT-1259-2; CAC-AR-1259; CAC-AT-1263-2 and CAC-AR-1263)	M	R
10.	Containment hydrogen concentration (CAC-AT-1259-1; CAC-AR-1259; CAC-AT-1263-1 and CAC-AR-1263)	M	R
11.	Safety relief valve position indication (Primary-Sonic) (B21-FY-4157 thru 4167)	M	R
12.	Safety relief valve position indication (Secondary-Temperature) (B21-TR-R614 points 1 thru 11)	M	R

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 POST-ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the post-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 startup. 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 SRM's 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."

MONITORING INSTRUMENTATION (Continued)

3/4.3.5.6 CHLORIDE INTRUSTION MONITORS

The chloride intrusion monitors provide adequate warning of any leakage in the condenser or hotwell so that actions can be taken to mitigate the consequences of such intrusion in the reactor coolant system. With only a minimum number of instruments available increased sampling frequency provides adequate information for the same purpose.

3/4.3.5.7 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, increasing the frequency of fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.6 ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

The ATWS recirculation pump trip system has been added at the suggestion of ACRS as a means of limiting the consequences of the unlikely occurrence of a failure to scram during an anticipated transient. The response of the plant to this postulated event falls within the envelope of study events given in General Electric Company Topical Report NEDO-10349, dated March, 1971.

TABLE 6.2.2-1

MINIMUM SHIFT CREW COMPOSITION#

Condition of Unit 1 - Unit 2 in CONDITION 1, 2 or 3

LICENSE CATEGORY	APPLICABLE OPERATIONAL CONDITIONS	
	1, 2, 3	4 & 5
SOL**	2	2*
OL**	3	2
Non-Licensed	4	3
Shift Technical Advisor	1	0

Condition of Unit 1 - Unit 2 in CONDITION 4 or 5

LICENSE CATEGORY	APPLICABLE OPERATIONAL CONDITIONS	
	1, 2, 3	4 & 5
SOL**	2	1*
OL**	3	2
Non-Licensed	3	3
Shift Technical Advisor	1	0

Condition of Unit 1 - No Fuel in Unit 2

LICENSE CATEGORY	APPLICABLE OPERATIONAL CONDITIONS	
	1, 2, 3	4 & 5
SOL	1	1*
OL	2	1
Non-Licensed	2	1
Shift Technical Advisor	1	0

* Does not include the licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling, supervising CORE ALTERATIONS.

**Assumes each individual is licensed on both plants.

Shift crew composition, including an individual qualified in radiation protection procedures, may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of Table 6.2.2-1.

6.3 FACILITY STAFF QUALIFICATIONS

6.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the (Radiation Protection Manager) who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975 and (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR Part 55.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Plant Fire Chief and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975.

6.5 REVIEW AND AUDIT

6.5.1 PLANT NUCLEAR SAFETY COMMITTEE (PNSC)

FUNCTION

6.5.1.1 The PNSC shall function to advise the General Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PNSC shall be composed of the:

Chairman:	Plant General Manager
Vice Chairman:	Operations Manager, Maintenance Manager, Technical - Administrative Manager or Director-Nuclear Safety and QA
Secretary:	Administrative Supervisor
Member:	Maintenance Supervisor (I&C)
Member:	Maintenance Supervisor (Mechanical)
Member:	Engineering Supervisor
Member:	Environmental and Radiation Control Supervisor
Member:	Quality Assurance Supervisor
Member:	Shift Operating Supervisors
Member:	Training Supervisor

ALTERNATES

6.5.1.3 All alternate members shall be appointed in writing by the PNSC Chairman to serve on a temporary basis; however, no more than two alternates shall participate as voting members in PNSC activities at any one time.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 34 TO FACILITY LICENSE NO. DPR-71 AND

AMENDMENT NO. 55 TO FACILITY LICENSE NO. DPR-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-325 AND 50-324

I. INTRODUCTION

By letter dated September 16, 1980, the Carolina Power & Light Company (the licensee) proposed changes to the Technical Specifications (TSs) appended to Facility Operating License Nos. DPR-71 and DPR-62 for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. The changes involve the incorporation of certain of the TMI-2 Lessons Learned Category "A" requirements. The licensee's request is in direct response to the NRC staff's letter dated July 2, 1980.

II. BACKGROUND INFORMATION

By our letter dated September 13, 1979, we issued to all operating nuclear power plants requirements established as a result of our review of the Three Mile Island Unit 2 accident. Certain of these requirements, designated Lessons Learned Category "A" requirements, were to have been completed by the licensee prior to any operation subsequent to January 1, 1980. Our evaluation of the licensee's compliance with these Category "A" items was attached to our letter to CP&L dated April 1, 1980.

In order to provide reasonable assurance that operating reactor facilities are maintained within the limits determined acceptable following the implementation of the TMI-2 Lessons Learned Category "A" items, we requested that licensees amend their TSs to incorporate additional Limiting Conditions of Operation and Surveillance Requirements, as appropriate. This request was transmitted to all licensees on July 2, 1980. Included therein were model specifications that we had determined to be acceptable. The licensee's application is in direct response to our request. Each of the issues identified by the NRC staff and the licensee's response is discussed in the evaluation below.

III. EVALUATION

1. Emergency Power Supply/Inadequate Core Cooling

As applicable to Boiling Water Reactors (BWRs), we indicated that water level instrumentation is important to post-accident monitoring and that surveillance of this instrumentation should be performed. The licensee's response to this request stated that the existing TSs for the BSEP Units adequately address this subject and no changes were proposed.

We have reviewed the current specifications (Tables 3.3.5.3-1 and 4.3.5.3-1 for BSEP 1 & 2) and determined that water level instrumentation is included. The specifications provide ACTION statements for inoperable instrument channels. Surveillance requirements for instrument checks and calibration are also included. The frequency of surveillance meets or exceeds our guidelines. Based on this review, we conclude that no changes are required to satisfy our request.

2. Valve Position Indication

Our requirements for installation of a reliable position indicating system for relief and safety valves was based on the need to provide the operator with a diagnostic aid to reduce the ambiguity between indications that might indicate either an open relief/safety valve or a small line break. Such a system did not need to be safety grade provided that backup methods of determining valve position are available.

The licensee's request would add both the primary indicating system (sonic sensors) and the secondary indicating system (downstream temperature detectors) to the specifications. Actions have been specified for the condition of an inoperable channel and for inoperability of both primary and backup detector channels. Additionally, surveillance requirements have been included. Based on our review, we find the licensee's recommended changes satisfy our guidelines and are acceptable.

3. Containment Isolation

Our request indicated that the specifications should include a Table of Containment Isolation Valves which reflect the diverse isolation signal requirements of this Lessons Learned issue.

The licensee's response stated that TSs consistent with the reevaluation of the Containment Isolation Valve ISI Program would be submitted by the end of 1980. This date was subsequently revised to April 1981 in a letter submitted December 15, 1980. In subsequent discussions with the staff on this topic, the licensee stated that the current TSs meet the minimum requirement for this issue.

We have reviewed the current specifications (Tables 3.3.2-1, 3.3.2-2, 3.3.2-3, 4.3.2-1, and 3.6.3-1 for BSEP 1&2). These tables include a listing of automatic valves, actuation signals and surveillance requirements. Based on this review, we have determined that the current specifications satisfy our request and that no changes are necessary.

4. Shift Technical Advisor (STA)

Our request indicated that the TSs related to minimum shift manning should be revised to reflect the augmentation of an STA. The STA function includes both accident and operating experience assessment.

The licensee proposed the addition of an STA to the minimum shift crew composition and the specific qualifications of this individual. These qualifications state that the STA shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

The licensee's proposal is consistent with our request. We find the changes to include the STA in the minimum shift manning acceptable.

5. Integrity of Systems Outside Containment

Our letter dated July 2, 1980, indicated that the license should be amended by adding a license condition related to a Systems Integrity Measurements Program. Such a condition would require the licensee to effect an appropriate program to eliminate or prevent the release of significant amounts of radioactivity to the environment via leakage from engineered safety systems and auxiliary systems, which are located outside reactor containment.

The licensee's proposed license condition for Systems Integrity is acceptable.

6. Iodine Monitoring

Our letter dated July 2, 1980, indicated that the license should be amended by adding a license condition related to iodine monitoring. Such a condition would require the licensee to effect a program which would ensure the capability to determine the airborne iodine concentration in areas requiring personnel access under accident conditions.

The licensee's proposed license condition for Iodine Monitoring is acceptable.

IV. ENVIRONMENTAL CONSIDERATION

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR § 51.5(d)(4) that an environmental impact statement, negative declaration, or environmental impact appraisal need not be prepared in connection with the issuance of the amendments.

V. CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Dated: March 16, 1981

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-325 AND 50-324

CAROLINA POWER & LIGHT COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 34 and 55 to Facility Operating License Nos. DPR-71 and DPR-62 issued to Carolina Power & Light Company (the licensee) which revised the Licenses and Technical Specifications for operation of the Brunswick Steam Electric Plant, Unit Nos. 1 and 2 (the facility), located in Brunswick County, North Carolina. The amendments are effective as of the date of issuance.

These changes to the Licenses and Technical Specifications involve incorporation of certain of the TMI-2 Lessons Learned Category "A" requirements. These requirements concern (1) Valve Position Indication, (2) Shift Technical Advisor Augmentation, (3) Integrity of Systems Outside Containment and (4) Iodine Monitoring.

The application for amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of the amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of the amendments will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4), an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of the amendments.

For further details with respect to this action, see (1) the application for amendments dated September 16, 1980, (2) Amendment Nos. 34 and 55 to License Nos. DPR-71 and DPR-62, and (3) the Commission's related Safety Evaluation. These items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D. C. and at the Southport-Brunswick County Library, 109 West Moore Street, Southport, North Carolina 28461. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 16th day of March 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas A. Ippolito, Chief
Operating Reactors Branch #2
Division of Licensing