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May 7, 1982

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. 47 and 70 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 Technical Specifications in response to your submittal of April 30, 1982.

These amendments change the Technical Specifications to permit core alterations when source range monitor counts indicate less than three counts per second during spiral unload or spiral reload operations.

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

Sincerely,

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

## Enclosures:

1. Amendment No. 47 to DPR-71
2. Amendment No. 70 to DPR-62
3. Safety Evaluation
4. Notice

cc w/enclosures:  
See next page

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[Signature]

FR NOTICE  
&  
AMENDMENT



OFFICE	ORB#2:DL	ORB#2:DL	C-ORB#2:DL	CPB:DST	AD-OR:DL	OELD	
SURNAME	SNorris	JVan Vliet/cb	DVassallo	WBrooks	TNovak	M. H. [Signature]	
DATE	5/5/82	5/5/82	5/5/82	5/5/82	5/6/82	5/6/82	

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

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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. 47  
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 April 30, 1982, 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. 47, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "Domenic B. Vassallo", is written over the typed name.

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

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 7, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 47

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Remove the following pages and replace with identically numbered pages.

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## DEFINITIONS

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### SHUTDOWN MARGIN

1.30 SHUTDOWN MARGIN shall be the amount of reactivity by which the reactor would be subcritical assuming that all control rods capable of insertion are fully inserted except for the analytically determined highest worth rod which is assumed to be fully withdrawn, and the reactor is in the shutdown condition, cold, 68°F, and Xenon-free.

### SPIRAL RELOAD

1.31 A SPIRAL RELOAD is the reverse of a SPIRAL UNLOAD. Except for two diagonal fuel bundles around each of the four SRMs, the fuel in the interior of the core, symmetric to the SRMs, is loaded first.

### SPIRAL UNLOAD

1.32 A SPIRAL UNLOAD is a core unload performed by first removing the fuel from the outermost control cells (four bundles surrounding a control blade). Unloading continues in a spiral fashion by removing fuel from the outermost periphery to the interior of the core, symmetric about the SRMs, except for two diagonal fuel bundles around each of the four SRMs.

### STAGGERED TEST BASIS

1.33 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for n systems, subsystems, trains, or other designated components obtained by dividing the specified test interval into n equal subintervals.
- b. The testing of one system, subsystem, train, or other designated component at the beginning of each subinterval.

### THERMAL POWER

1.34 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

### TOTAL PEAKING FACTOR

1.35 The TOTAL PEAKING FACTOR (TPF) shall be the ratio of local LHGR for any specific location on a fuel rod divided by the average LHGR associated with the fuel bundles of the same type operating at the core average bundle power.

### UNIDENTIFIED LEAKAGE

1.36 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE.



## REFUELING OPERATIONS

### 3/4.9.2 INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

3.9.2 During CORE ALTERATIONS, the requirements for the source range monitors (SRMs) shall be:

- a. Two SRMs\* shall be OPERABLE, one in the core quadrant where fuel is being moved and one in an adjacent quadrant. For an SRM to be considered OPERABLE, it shall be inserted to the normal operating level and shall have a minimum of 3 cps except as specified in d and e below.
- b. The SRMs shall give a continuous visual indication in the Control Room.
- c. The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn\*\* and shutdown margin demonstrations.
- d. During a core SPIRAL UNLOAD the count rate may drop below 3 cps.
- e. Prior to a core SPIRAL RELOAD, two diagonally adjacent fuel assemblies shall be loaded into different control cells containing control blades around each SRM to obtain 3 cps. Until these assemblies have been loaded, the 3 cps count rate is not required.

APPLICABILITY: CONDITION 5

#### ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods. The provisions of Specification 3.0.3 are not applicable.

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\*The use of special movable detectors during CORE ALTERATIONS in place of the normal SRM nuclear detectors is permissible as long as these special detectors are connected to the normal SRM circuits.

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\*\*Not required for control rods removed per Specifications 3.9.10.1 or 3.9.10.2.

## SURVEILLANCE REQUIREMENTS

4.9.2 Each of the above required SRM channels shall be demonstrated OPERABLE by:

- a. At least once per 12 hours;
  1. Performance of a CHANNEL CHECK,
  2. Verifying the detectors are inserted to the normal operating level,
  3. During CORE ALTERATIONS, verifying that the detector of an OPERABLE SRM channel is located in the core quadrant where CORE ALTERATIONS are being performed and one is located in the adjacent quadrant,
  4. During CORE ALTERATIONS, verifying that the channel count rate is at least 3 cps (except as noted in Specification 3.9.2.d and 3.9.2.e),
  5. During a core SPIRAL UNLOAD or SPIRAL RELOAD, verifying that the fuel movement sheet is being followed.
- b. Verifying prior to the start of a SPIRAL RELOAD that the SRMs have been raised to a count rate of at least 3 cps by the insertion of adjacent fuel assemblies.
- c. Performance of a CHANNEL FUNCTIONAL TEST:
  1. Within 24 hours prior to the start of CORE ALTERATIONS, and
  2. At least once per seven days.

## 3/4.9 REFUELING OPERATIONS

### BASES

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#### 3/4.9.1 REACTOR MODE SWITCH

Locking the reactor mode switch in the refuel position ensures that the restrictions on rod withdrawal and refueling platform movement during the refueling operations are properly activated. These conditions reinforce the refueling procedures and reduce the probability of inadvertent criticality, damage to reactor internals, fuel assemblies and exposure of personnel to excessive radioactivity.

#### 3/4.9.2 INSTRUMENTATION

The OPERABILITY of the source range monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core.

During a SPIRAL UNLOAD, the count rate of the SRM will decrease below 3 cps before all of the fuel is unloaded. The count rate of 3 cps is not necessary since there will be no reactivity additions during the spiral unload. The SRMs will be required to be OPERABLE prior to the SPIRAL UNLOAD, and each SRM will be verified operational by raising the count rate to 3 cps prior to the spiral reload by inserting two assemblies around each SRM. This will ensure that the SRMs can be relied upon to monitor core reactivity during the reload.

#### 3/4.9.3 CONTROL ROD POSITION

The requirement that all control rods be inserted during CORE ALTERATIONS ensures that fuel will not be loaded into a cell without a control rod and prevents two positive reactivity changes from occurring simultaneously.

#### 3/4.9.4 DECAY TIME

The minimum requirement for reactor subcriticality prior to fuel movement ensures that sufficient time has elapsed to allow the radioactive decay of the short lived fission products. This decay time is consistent with the assumptions used in the accident analyses.

#### 3/4.9.5 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity condition during movement of fuel within the reactor pressure vessel.

## REFUELING OPERATIONS

### BASES

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#### 3/4.9.6 CRANE AND HOIST OPERABILITY

The OPERABILITY requirements of the cranes and hoists used for movement of fuel assemblies ensures that: 1) each has sufficient load capacity to lift a fuel element, and 2) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

#### 3/4.9.7 CRANE TRAVEL-SPENT FUEL STORAGE POOL

The restriction on movement of loads in excess of the weight specified provides some assurance that with the failure of the lifting device the fuel pool would not be damaged to such a degree that the irradiated fuel would be subjected to a loss-of-coolant.

#### 3/4.9.8 and 3/4.9.9 WATER LEVEL-REACTOR VESSEL AND SPENT FUEL STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of irradiated fuel assembly. This minimum water depth is consistent with the assumptions of the accident analysis.

#### 3/4.9.10 CONTROL ROD REMOVAL

This specification ensures that maintenance or repair on control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The requirements for simultaneous removal of more than one control rod are more stringent since the SHUTDOWN MARGIN specification provides for the core to remain subcritical with only one control rod fully withdrawn.



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. 70  
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 April 30, 1982, 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. 70, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "Domenic B. Vassallo".

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

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 7, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 70

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

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## DEFINITIONS

### SHUTDOWN MARGIN

1.31 SHUTDOWN MARGIN shall be the amount of reactivity by which the reactor would be subcritical assuming that all control rods capable of insertion are fully inserted except for the analytically determined highest worth rod which is assumed to be fully withdrawn, and the reactor is in the shutdown condition, cold, 68°F, and Xenon-free.

### SPIRAL RELOAD

1.32 A SPIRAL RELOAD is the reverse of a SPIRAL UNLOAD. Except for two diagonal fuel bundles around each of the four SRMs, the fuel in the interior of the core, symmetric to the SRMs, is loaded first.

### SPIRAL UNLOAD

1.33 A SPIRAL UNLOAD is a core unload performed by first removing the fuel from the outermost control cells (four bundles surrounding a control blade). Unloading continues in a spiral fashion by removing fuel from the outermost periphery to the interior of the core, symmetric about the SRMs, except for two diagonal fuel bundles around each of the four SRMs.

### STAGGERED TEST BASIS

1.34 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals.
- b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

### THERMAL POWER

1.35 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

### TOTAL PEAKING FACTOR

1.36 The TOTAL PEAKING FACTOR (TPF) shall be the ratio of local LHGR for any specific location on a fuel rod divided by the average LHGR associated with the fuel bundles of the same type operating at the core average bundle power.

### UNIDENTIFIED LEAKAGE

1.37 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE.

## REFUELING OPERATIONS

### 3/4.9.2 INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

---

3.9.2 During CORE ALTERATIONS, the requirements for the source range monitors (SRMs) shall be:

- a. Two SRMs\* shall be OPERABLE, one in the core quadrant where fuel is being moved and one in an adjacent quadrant. For an SRM to be considered OPERABLE, it shall be inserted to the normal operating level and shall have a minimum of 3 cps except as specified in d and e below.
- b. The SRMs shall give a continuous visual indication in the Control Room.
- c. The "shorting links" shall be removed from the RPS circuitry prior to and during the time any control rod is withdrawn\*\* and shutdown margin demonstrations.
- d. During a core SPIRAL UNLOAD the count rate may drop below 3 cps.
- e. Prior to a core SPIRAL RELOAD, two diagonally adjacent fuel assemblies shall be loaded into different control cells containing control blades around each SRM to obtain 3 cps. Until these assemblies have been loaded, the 3 cps count rate is not required.

APPLICABILITY: CONDITION 5

#### ACTION:

With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods. The provisions of Specification 3.0.3 are not applicable.

---

\*The use of special movable detectors during CORE ALTERATIONS in place of the normal SRM nuclear detectors is permissible as long as these special detectors are connected to the normal SRM circuits.

---

\*\*Not required for control rods removed per Specifications 3.9.10.1 or 3.9.10.2.

## SURVEILLANCE REQUIREMENTS

4.9.2 Each of the above required SRM channels shall be demonstrated OPERABLE by:

- a. At least once per 12 hours;
  - 1. Performance of a CHANNEL CHECK,
  - 2. Verifying the detectors are inserted to the normal operating level,
  - 3. During CORE ALTERATIONS, verifying that the detector of an OPERABLE SRM channel is located in the core quadrant where CORE ALTERATIONS are being performed and one is located in the adjacent quadrant,
  - 4. During CORE ALTERATIONS, verifying that the channel count rate is at least 3 cps (except as noted in Specification 3.9.2.d and 3.9.2.e),
  - 5. During a core SPIRAL UNLOAD or SPIRAL RELOAD, verifying that the fuel movement sheet is being followed.
- b. Verifying prior to the start of a SPIRAL RELOAD that the SRMs have been raised to a count rate of at least 3 cps by the insertion of adjacent fuel assemblies.
- c. Performance of a CHANNEL FUNCTIONAL TEST:
  - 1. Within 24 hours prior to the start of CORE ALTERATIONS, and
  - 2. At least once per seven days.

### 3/4.9 REFUELING OPERATIONS

#### BASES

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#### 3/4.9.1 REACTOR MODE SWITCH

Locking the reactor mode switch in the refuel position ensures that the restrictions on rod withdrawal and refueling platform movement during the refueling operations are properly activated. These conditions reinforce the refueling procedures and reduce the probability of inadvertent criticality, damage to reactor internals, fuel assemblies and exposure of personnel to excessive radioactivity.

#### 3/4.9.2 INSTRUMENTATION

The OPERABILITY of the source range monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core.

During a SPIRAL UNLOAD, the count rate of the SRM will decrease below 3 cps before all of the fuel is unloaded. The count rate of 3 cps is not necessary since there will be no reactivity additions during the spiral unload. The SRMs will be required to be OPERABLE prior to the SPIRAL UNLOAD, and each SRM will be verified operational by raising the count rate to 3 cps prior to the spiral reload by inserting two assemblies around each SRM. This will ensure that the SRMs can be relied upon to monitor core reactivity during the reload.

#### 3/4.9.3 CONTROL ROD POSITION

The requirement that all control rods be inserted during CORE ALTERATIONS ensures that fuel will not be loaded into a cell without a control rod and prevents two positive reactivity changes from occurring simultaneously.

#### 3/4.9.4 DECAY TIME

The minimum requirement for reactor subcriticality prior to fuel movement ensures that sufficient time has elapsed to allow the radioactive decay of the short lived fission products. This decay time is consistent with the assumptions used in the accident analyses.

#### 3/4.9.5 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity condition during movement of fuel within the reactor pressure vessel.

## REFUELING OPERATIONS

### BASES

---

#### 3/4.9.6 CRANE AND HOIST OPERABILITY

The OPERABILITY requirements of the cranes and hoists used for movement of fuel assemblies ensures that: 1) each has sufficient load capacity to lift a fuel element, and 2) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

#### 3/4.9.7 CRANE TRAVEL-SPENT FUEL STORAGE POOL

The restriction on movement of loads in excess of the weight specified provides some assurance that with the failure of the lifting device the fuel pool would not be damaged to such a degree that the irradiated fuel would be subjected to a loss-of-coolant.

#### 3/4.9.8 and 3/4.9.9 WATER LEVEL-REACTOR VESSEL AND SPENT FUEL STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gap activity released from the rupture of irradiated fuel assembly. This minimum water depth is consistent with the assumptions of the accident analysis.

#### 3/4.9.10 CONTROL ROD REMOVAL

This specification ensures that maintenance or repair on control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The requirements for simultaneous removal of more than one control rod are more stringent since the SHUTDOWN MARGIN specification provides for the core to remain subcritical with only one control rod fully withdrawn.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 47 TO FACILITY LICENSE NO. DPR-71 AND  
AMENDMENT NO. 70 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

I. Introduction

By letter dated April 30, 1982, 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 redefine source range monitor (SRM) operability during spiral unloading and spiral reloading operations.

II. Discussion

A spiral unloading pattern is one in which the fuel in the outer-most cells (four fuel bundles surrounding a control blade) is removed first. Unloading continues by removing the remaining outermost fuel by cell so that the center cell will be removed last. Spiral loading is the reverse of unloading. Spiral loading and unloading preclude the formation of flux traps (moderator-filled cavities surrounded on all sides by fuel).

The changes proposed by the licensee would allow the count rate of the SRM channels to drop below three counts per second (cps) when the entire reactor core is being removed or replaced in a spiral pattern. During any core alteration, and especially during core loading, it is necessary to monitor flux levels. In this manner, even in the highly unlikely event of multiple operator errors, there is reasonable assurance that any approach to criticality would be detected in time to halt operations. Thus the minimum count rate requirement (three cps) in the present Technical Specifications accomplishes three safety functions: (1) it provides assurance that the SRM detectors are close enough to the array of fuel assemblies to monitor core flux levels; (2) it assures the presence of some neutrons in the core, and (3) it provides assurance that the analog portion of the SRM channels is operable.

Unloading and reloading of the entire core leads to some difficulty with this minimum count rate requirement. When only a small number of assemblies are present within the core, the SRM count rate will drop below the minimum due to the small number of neutrons being produced. Likewise, with the decreasing geometry of the fuel array and the fixed position of the SRM detectors, the neutron attenuation by the increased distance and moderation will also affect the measurable count rate.

Past practice has been to connect temporary "dunking" chambers to the SRM channels in place of the normal detectors, and to locate these detectors

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near the fuel. Besides being operationally inconvenient, dunking chambers suffer from signal variations due to movement. Moreover, the use of dunking chambers increases the risk of loose objects being dropped into the vessel.

### III. Evaluation

#### A. Flux Attenuation

The four SRM detectors are located, one per quadrant, roughly half a core radius from the center. Although these are incore detectors and thus very sensitive when the reactor is fully loaded, they lose some of their effectiveness when the reactor is partially defueled and the detectors are located some distance from the array of remaining fuel.

Spent fuel pool studies conducted by General Electric have shown <sup>1/</sup> that sixteen or more fuel assemblies (i.e., four or more control cells) must be loaded together before criticality is possible. In spiral loading sequences in the BSEP core, an array containing four or more control cells will be at most two control cells (i.e., about two feet) away from an SRM detector.

We have previously examined the sensitivity loss in such a case <sup>2/</sup> and found it to be acceptable. Therefore, we similarly find the sensitivity loss at BSEP to be acceptable.

#### B. Minimum Flux in the Core

Assuring the presence of neutrons in the core eliminates the possibility of positive reactivity additions remaining undetected by the nuclear instrumentation because of the lack of an initial neutron to start the neutron multiplication process. In this case, the proposed Technical Specifications will permit the loading of fuel to proceed only to the point where eight fuel assemblies are in place before the three cps minimum count rate must be achieved; thus indicating the presence of neutrons in the core. As stated above, sixteen fuel assemblies must be loaded together before criticality is possible. Therefore, the presence of neutrons in the core will be assured well before criticality is even remotely achievable. We find this acceptable.

#### C. SRM Operability

As in the preceding discussion, the proposed Technical Specifications will permit the spiral reload to proceed only to the point where eight fuel assemblies are loaded into the core before the three cps minimum count rate must be achieved. Thus, SRM operability will be demonstrated well before criticality is achievable. We find this acceptable.

#### D. Summary

We have examined the proposed amendment as described above and find it to be acceptable.



#### IV. Environmental Considerations

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, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: May 7, 1982

Author: J. A. Van Vliet

References

1. General Electric Standard Safety Analysis Report, 251-GESSAR, Section 4.3.2.7, pg. 4.3-27.
2. "Safety Evaluation by the Office of Nuclear Reactor Regulation Supporting Amendment No. 27 to Facility Operating License No. DPR-63", Docket No. 50-220, enclosed with letter, T. A. Ippolito (NRC) to D. P. Dise (Niagara Mohawk Power Corporation), dated March 2, 1979.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-325 AND 50-324CAROLINA POWER & LIGHT COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 47 and 70 to Facility Operating License Nos. DPR-71 and DPR-62 issued to Carolina Power & Light Company (the licensee) which revised the Technical Specifications for operation of the Brunswick Steam Electric Plant, Units Nos. 1 and 2 (the facility), located in Brunswick County, North Carolina. The amendments are effective as of the date of issuance.

The amendments revise the Technical Specifications to permit certain, specific core alterations to be performed when the source range nuclear instrumentation are indicating below the otherwise required threshold value.

The application for the 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 these amendments was not required since the amendments do not involve a significant hazards consideration.

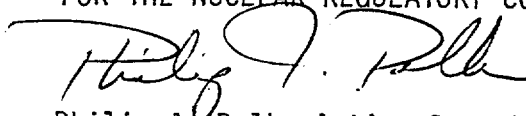
The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with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

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For further details with respect to this action, see (1) the application for amendments dated April 30, 1982, (2) Amendment Nos. 47 and 70 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, N. W., 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 7th day of May 1982.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "Philip J. Polk", is written over a horizontal line.

Philip J. Polk, Acting Branch Chief  
Operating Reactors Branch #2  
Division of Licensing