

July 19, 1993

Docket Nos. 50-325
and 50-324

Mr. R. A. Anderson
Vice President
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461

Dear Mr. Anderson:

SUBJECT: ISSUANCE OF AMENDMENT NO. 163 TO FACILITY OPERATING LICENSE NO. DPR-71 AND AMENDMENT NO. 194 TO FACILITY OPERATING LICENSE NO. DPR-62 REGARDING - BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2, (TAC NOS. M86407 AND M86408)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 163 to Facility Operating License No. DPR-71 and Amendment No. 194 to Facility Operating License No. DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2. The amendments change the Operating Licenses in response to your submittal dated April 15, 1993.

The amendments rescind NRC's Confirmatory Order EA-82-106, dated December 22, 1982, by the attached amendment to Facility Operating Licenses Nos. DPR-71 and DPR-62.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's bi-weekly Federal Register Notice.

Sincerely,

Original signed by:
S. Singh Bajwa for:
Patrick D. Milano, Senior Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 163 to License No. DPR-71
2. Amendment No. 194 to License No. DPR-62
3. Safety Evaluation

cc w/enclosures:
See next page

NRC FILE CENTER COPY

*See previous concurrence

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NAME	PD Anderson	PDMilano	SSBajwa	GZech	SHLewis
DATE	07/15/93	07/15/93	07/15/93	07/06/93	07/15/93

Document Name: BRN86407.AMD

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Carolina Power & Light Company

Brunswick Steam Electric Plant
Units 1 and 2

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AMENDMENT NO. 163 TO FACILITY OPERATING LICENSE NO. DPR-71 - BRUNSWICK, UNIT 1
AMENDMENT NO. 194 TO FACILITY OPERATING LICENSE NO. DPR-62 - BRUNSWICK, UNIT 2

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Docket File

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cc: Brunswick Service List



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 163
License No. DPR-71

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated April 15, 1993, 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, this amendment to Facility Operating License No. DPR-71 rescinds NRC's Confirmatory Order EA-82-106.
3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Singh S. Bajwa, Acting Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Date of Issuance: July 19, 1993

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20565-0001

CAROLINA POWER & LIGHT COMPANY, et al.

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 194
License No. DPR-62

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Carolina Power & Light Company (the licensee), dated April 15, 1993, 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, this amendment to Facility Operating License No. DPR-71 rescinds NRC's Confirmatory Order EA-82-106.
3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, appearing to read "Singh S. Bajwa".

Singh S. Bajwa, Acting Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Date of Issuance: July 19, 1993



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20565-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 163 TO FACILITY OPERATING LICENSE NO. DPR-71
AND AMENDMENT NO. 194 TO FACILITY OPERATING 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 April 15, 1993, Carolina Power & Light Company (the licensee or CP&L) submitted a request to amend Facility Operating License No. DPR-71 and Facility Operating License No. DPR-62 for the Brunswick Steam Electric Plant, Units 1 and 2, (BSEP) to rescind NRC Confirmatory Order EA-82-106. The NRC issued Confirmatory Order EA-82-106 on December 22, 1982, to require the licensee to: (1) implement the Brunswick Improvement Program (BIP), as described in the enclosure to their October 29, 1982 letter, and (2) provide copies of all applicable reports on the studies and assessments identified in specific action items of the BIP along with an assessment of each recommendation in the reports and the plans and schedules for implementing each recommendation. The BIP was developed in response to NRC inspection findings which revealed that, since issuance of the operating licenses for BSEP, Units 1 and 2, the units had operated without verification, or demonstration by surveillance testing, that several identified safety systems would operate in accordance with plant design specifications. The observed deficiencies included missed surveillance tests, inadequate surveillance test procedures, and the absence of certain test procedures to demonstrate compliance with license provisions.

The BIP specified 31 Action Items, encompassing 134 detailed tasks, to accomplish the following objectives: (a) ensure full and timely compliance to surveillance requirements, regulatory commitments, and regulatory requirements, (b) ensure that all necessary procedures exist and are clear, unambiguous, precise, complete, and of high technical quality, (c) increase the frequency and scope of quality control surveillance and corporate auditing program activities, (d) ensure maintenance activities do not degrade or render inoperable any component, system, or instrument, (e) increase the proficiency of plant personnel by means of expanded training programs, (f) more effectively utilize the technical expertise of the onsite and corporate nuclear safety staff in enhancing the safety and reliability of plant operation, and (g) undertake actions to enhance and strengthen the management control and organizational discipline necessary to provide for safe and reliable operation. The Confirmatory Order EA-82-106 also required the licensee to inform the Administrator, Region II, about the disposition of those recommendations stemming from the review and assessments conducted under BIP Action Items V-5 and VII-1 through VII-5. These are given below:

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Item No. Action Item Description

- V-5 Upgrade the program for providing training in industry-wide events, incident, and operating experience reports.
- VII-1 Management Analysis Company has been retained to perform review of Corporate QA Program
- VII-2 Initiate study to reduce outside demands on plant staff to allow more attention to operations and maintenance.
- VII-3 Commence INPO assessment of operational activities, CNS, corporate/plant interface, and PNSC activities.
- VII-4 Develop implementation schedule for appropriate recommendation of the shift foreman time utilization study.
- VII-5 Develop implantation schedule for appropriate recommendations of the Essex Corporation Human Factors Study.

2.0 EVALUATION

By letter dated April 3, 1984, the Administrator, NRC Region II, informed the licensee that the requirements imposed by the Confirmatory Order EA-82-106 had been satisfied, but requested semi-annual reports on the status of seven long-term recommendation actions associated with the assessment conducted under BIP Action Item VII-1. The licensee submitted the final status report to the NRC staff on May 30, 1986, documenting the completion of those long-term recommendation actions.

On October 11, 1988, CP&L requested that the Confirmatory Order EA-82-106 be discontinued. Although the major concern stemming from the Order had been satisfactorily resolved, the NRC staff determined that discontinuance of the Order was not appropriate at that time because of an observed decline in the licensee's overall performance at BSEP during the previous year. The NRC staff had recognized a continuing weakness with the licensee's program to determine root causes and to implement effective corrective actions. It had also noted a decline at BSEP in management effectiveness in defining and communicating goals and objectives and in communicating to the staff those management expectations regarding adherence to acceptance standards. These weaknesses were noted in the Systematic Assessment of Licensee Performance (SALP) report presented to the licensee in November 1988. Specific problems noted in the report included: (1) instances of operator inattention to detail, (2) higher than expected equipment failure rates, (3) management tolerance of material deficiencies, and (4) slow action by engineering support to correct design deficiencies. Some of these same concerns were addressed in Confirmatory Order EA-82-106.

Diagnostic Evaluation Team Inspection

Because of these issues, the NRC recommended that a diagnostic evaluation team (DET) conduct a thorough evaluation. The evaluation was conducted in May 1989 to assist in revealing the root cause of the declining performance.

The DET identified a number of root causes for the observed decline in plant performance. The DET found management weaknesses such as its failure to clearly define and communicate site goals, priorities, and expectations. The DET also found a lack of individual accountability and teamwork, an ineffective corrective action and root cause determination program, and an ineffective engineering design and technical support program.

On receipt of the DET findings in September 1989, the licensee established a performance improvement program, called the Brunswick Integrated Action Plan (IAP). The staff noted an overall level of improvement during the latter half of the SALP period that ended August 31, 1989. It attributed this trend to changes in senior-level management at both the site and corporate office, as well as the initial implementation of self-assessment recommendations encompassed by the BSEP IAP. However, these improvements were not sustained as evidenced by instances of poor licensee performance in the areas of work control, operator performance during NRC-administered examinations, and additional examples of inadequate engineering support of the plant staff.

Special Region II Inspections

Because of the continued work control problems and the apparent inability of the IAP to sustain an overall improvement in plant performance, the NRC conducted a series of five special inspections in the first half of 1992 to assess possible root causes. Although some improvement due to the IAP was noted, the licensee was expending significant technical support resources in reacting to equipment failures, allowing little attention to be paid to predicting or preventing future failures. The NRC inspections highlighted the previous management weaknesses in setting appropriate standards of acceptance for plant material condition and providing critical self-assessment.

CP&L Corporate Improvement Initiatives and Brunswick Three-Year Plan

The NRC determined in June 1992 that the continuing material deficiencies, as further evidenced by the April 1992 shutdown of both BSEP units, and the insufficient improvement in performance warranted placing BSEP on the list of facilities requiring additional management attention. In a letter of June 23, 1992, the Administrator, Region II, notified the licensee that the depth of issues associated with BSEP required an integrated approach to their resolution such as a performance improvement program. The Administrator noted in the letter that, although the licensee had made a number of changes in organization and in the physical plant, these changes had not corrected performance to the degree necessary and the decline identified in the March 1992 SALP report had continued.

In response to the request for a performance improvement program and to the findings of the NRC special inspection, the licensee initially submitted its description of a proposed Corporate Improvement Program on July 23, 1992. The licensee provided a commitment to improve the performance of BSEP, a description of the BSEP Startup Plan, and a description of the general structure of the company's long-term improvement program.

On November 30, 1992, the licensee submitted the formal details of its commitment directed at the corporate organization and its programs that would be implemented to benefit all three of its nuclear facilities (BSEP, H. B. Robinson, and Shearon Harris). The licensee indicated that the outstanding projects described in its July 23, 1992, letter were incorporated into the new Corporate Improvement Initiatives (CII) and the Brunswick Three-Year Plan. The CII was designed to address seven key areas:

- (1) definition of organizational structure, responsibility, and accountability
- (2) nuclear safety oversight
- (3) managerial effectiveness in the areas of teamwork, communication, leadership, and employee motivation
- (4) programs and procedures
- (5) personnel development, emphasizing training and professionalism
- (6) basic work planning and control systems
- (7) material condition

The licensee provided to the NRC on December 15, 1992, the Brunswick Three-Year Plan, which integrated the projects noted in the CII and incorporated a description and schedule for each of the detailed initiatives and projects. The objective of the Three-Year Plan (1993-1995) is to improve safety, operations, cost performance, employee satisfaction, and achievement of the schedule and commitments, as well as to have the capability for achieving a "world class" level of performance by 1996.

The NRC staff conducted a review of the CII and Three-Year Plan to assess the scope, adequacy, and implementation capability of the various projects and initiatives. The staff provided the results of its review and a request for additional clarifying information to the licensee in a letter dated March 8, 1993. The staff has found that the CII and Three-Year Plan are comprehensive programs that address the root causes for the observed decline in plant performance and provide a workable process for implementing the necessary changes and assessing the effectiveness of the corrective actions. The licensee responded to the request for clarification in a letter dated April 6, 1993.

More so than in the earlier improvement programs, the licensee has now enhanced senior management authority, responsibility, and accountability for each of the improvement projects. Each senior manager is fully accountable for the success of his/her assigned project and has sufficient authority to bring the project to completion and make any necessary adjustments. The sense of responsibility for the success of the projects was lacking in previous improvement programs. The staff noted that this improvement in management

responsibility and accountability was instrumental in the effort to restart BSEP Unit 2 in April 1993. CP&L has also committed, in its letter dated December 15, 1992, to periodic meetings with the NRC to report on the status of its implementation of the Brunswick Three-Year Plan.

The staff has reviewed the list of action items detailed in the BIP and finds that each action item has been previously completed and documented, or determined to be no longer necessary, or its objectives are adequately incorporated into the CII and Brunswick Three-Year Plan.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (58 FR 8068). Accordingly, the amendment meets 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 amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above and the determination that the non closed BIP actions are either no longer necessary or the objectives are adequately incorporated into the CII and Brunswick Three-Year Plan, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by the rescinding of the Confirmatory Order EA-82-106, (2) no changes in licensee activities will be made as a result of these amendments that will affect compliance with the Commission's regulations, and (3) 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: P. D. Milano

Date: July 19, 1993