

August 30, 1991

Docket Nos. 50-325
and 50-324

Mr. Lynn Eury
Executive Vice President
Power Supply Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Eury:

SUBJECT: ENVIRONMENTAL ASSESSMENT RELATED TO THE LICENSE EXTENSION FOR
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
(TAC NOS. 66082 AND 66083)

Enclosed are copies of the Environmental Assessment for Brunswick Steam
Electric Plant, Units 1 and 2 (BSEP1 and BSEP2), and the Notice of
Environmental Assessment and Finding of No Significant Impact for your
information. These documents relate to to your request dated August 17, 1989,
as supplemented May 30 and June 29, 1990, and August 8 and August 29, 1991,
to extend the expiration dates of Operating Licenses DPR-71 (BSEP1) and DPR-62
(BSEP2) to September 8, 2016, and December 27, 2014, respectively.

The Notice has been forwarded to the Office of the Federal Register for
publication.

Sincerely,

Original Signed By:

Brenda Mozafari, Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
As stated

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See next page

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Mr. L. W. Eury
Carolina Power & Light Company

Brunswick Steam Electric Plant
Units 1 and 2

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Brunswick Plant File



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

ENVIRONMENTAL ASSESSMENT

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATING TO THE CHANGE IN EXPIRATION DATE OF

FACILITY OPERATING LICENSE NOS. DRP-71 AND DRP-62

CAROLINA POWER & LIGHT COMPANY

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

INTRODUCTION

The Brunswick Steam Electric Plant (BSEP), Units 1 and 2 (BSEP1 and BSEP2), are currently licensed for operation for 40 years commencing with the issuance of the respective construction permits. The licenses expire on February 7, 2010, for BSEP1 and February 6, 2010, for BSEP2. By letter dated August 17, 1987, as supplemented May 30 and June 29, 1990, and August 8 and August 29, 1991, Carolina Power & Light Company (CP&L or the licensee) requested that the license expiration dates for the facilities be extended to September 8, 2016, for BSEP1 and to December 27, 2014, for BSEP2, i.e., 40 years after the date of issuance of each of the operating licenses. The currently effective Facility Operating Licenses, DRP-71 and DRP-62, were issued on September 8, 1976, and December 27, 1974, for Units 1 and 2, respectively, and authorized operation at full power, not to exceed 2531 megawatts thermal each.

NEED FOR THE PROPOSED ACTION

The granting of this request would allow the licensee to extend operation of the plant for approximately 6 years and 7 months for Unit 1, and 4 years and 10 months for Unit 2, beyond the current license expiration date, thus, recapturing the construction period. This extension would also permit the plant to operate for the full 40 year design basis lifetime, consistent with previously stated Commission policy (Memorandum dated August 16, 1982, from William J. Dircks, Executive Director for Operations, to the Commissioners), and 10 CFR 50.51.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

The anticipated impact of the plant on the environment was evaluated in the staff's Final Environmental Statement (FES) dated January 1974. Since that time, its impact on the environment has been observed and recorded. In order to arrive at a finding on the acceptability of the plant's impact on the environment, the following considerations are evaluated in this assessment:

1. Radiological Impacts of the Hypothetical Design Basis Accident
2. Radiological Impacts of Annual Releases

3. Environmental Impact of Uranium Fuel Cycle
4. Non-Radiological Impacts
5. Plant Modifications

Each of these considerations is sequentially discussed below.

1. Radiological Impacts of the Hypothetical Design Basis Accident (DBA)

The offsite exposure from releases due to postulated accidents has been analyzed by the licensee in the BSEP original Final Safety Analysis Report (FSAR) and the updated FSAR (UFSAR). The results of these analyses were within the bounds of 10 CFR Part 100 and are acceptable. This type of analysis is a function of four parameters (1) the types of accidents postulated, (2) the radioactivity release calculated for each accident, (3) the assumed meteorological conditions, and (4) population distribution versus distance from the plant. The staff has concluded that neither the types of accidents nor the calculated radioactivity releases will change through the proposed amendment term. Furthermore, the site meteorology as defined in the FSAR is essentially a constant, and consideration herein is therefore unwarranted. Thus, the one parameter that is dependent on the proposed license amendment is the population size and distribution, as it could vary with time.

In the licensee's letter dated June 29, 1990, the projected population size and distribution within a 50-mile radius of the plant have been compared to the estimates contained in the UFSAR. The UFSAR projections are based on the 1980 census figures. No significant land use changes are expected during the amendment term that could affect offsite dose calculations. The results of the population projections are presented in Table 1, "Population Density Table," obtained from the licensee's letter of May 30, 1990. None of the projected changes in population between the years 2010 and 2017 would significantly impact any previously calculated accident analysis. Furthermore, the current exclusion area boundary, low population zone, and nearest population center distance are not likely to be significantly changed through the amendment term from those originally and currently used by CP&L.

Accordingly, the staff concludes that the proposed license amendment will not significantly change the previous conclusions on the potential environmental effects of offsite releases from postulated accidents. The staff stated in their proposed no significant hazards consideration determination in the Federal Register (55 FR 40460) on October 3, 1990, that the changes in expiration date to September 8, 2016, for BSEP1 and to December 27, 2014, for BSEP2 are consistent with current NRC policy and the originally engineered design life of the plant, i.e., 40 years of operation. Age-related degradation was the only mechanism the staff identified in the above-mentioned determination that could impact the probability or consequences of a previously evaluated accident. However, due to design conservatism, maintenance and surveillance programs, inspection programs and the plant Technical Specifications (TS), the proposed additional operation of 6 years and 7 months for BSEP1 and 4 years and 10 months for BSEP2 will have no significant impact on safety. That is, regardless of the age of the facility, the above-mentioned

programs and TS ensure that components, systems and structures will be refurbished or replaced to maintain their requisite safety function.

2. Radiological Impacts of Annual Releases

a. Onsite Doses

The average annual occupational dose at BSEP for the 28 reactor years (15 reactor years for BSEP1 and 13 years for BSEP2) of operation is 1189 person-rems/year. The average annual dose for the three-year period from 1988-1990 for BSEP was 847 person-rems/year. This three-year dose average was the second highest three-year BWR average in the U.S. for this period. By comparison, the average dose for all BWRs for the same three-year period was 461 person-rems/year.

In an attempt to reduce the average annual collective dose at BSEP, the licensee has instituted a Dose Reduction Plan. This plan includes aggressive dose goals for each of the years from 1991 through 1996. On the basis of these dose goals, the licensee estimates that the BSEP site dose will drop from the 1548 person-rems reported in 1990 to approximately 500 person-rems in 1995. The 1995 BSEP dose goal of 250 person-rems/unit is slightly below the 1995 dose goal established by the Institute of Nuclear Power Operations (INPO) for all BWRs of 255 person-rems/unit.

Replacement of the reactor recirculation piping risers for both units in 1989 and 1990 contributed to the high plant doses during these years. The new risers have fewer welds and the inside riser walls have been electropolished and pre-oxidized. The use of fewer welds will reduce the occurrence of intergranular stress corrosion cracking (thereby reducing the number of inspections needed) and treated riser walls will result in a slower crud deposition rate and a slower dose rate buildup.

As part of Brunswick's Dose Reduction Plan, the licensee will implement the following dose reduction methods. Outage length and dose will be minimized by better outage planning. The licensee will perform a chemical decontamination of the recirculation system and reactor vessel annulus during the Fall of 1991 Unit 2 refueling outage. A single point access control program has been implemented to provide better Radiation Work Permit accountability. Valve maintenance procedures have been revised to minimize cobalt intrusion into piping during valve work. In an effort to reduce the amount of stellite in the core, the licensee is planning to accelerate the replacement of control rod drive blades containing stellite. The licensee will also be participating in a control rod blade pin and roller replacement in collaboration with Electric Power Research Institute (EPRI).

Other actions underway at BSEP to reduce personnel exposures include use of a surrogate video tour to acquaint personnel with equipment layout in high dose areas prior to entering the areas, use of mockups, and use of video cameras to observe work being performed in high dose areas. The licensee has implemented a Rework Tracking Program which will allow personnel to benefit from lessons learned from prior maintenance work at the plant. In an effort to mitigate the unanticipated elevated recirculation system dose rates resulting from the use of hydrogen water chemistry, the licensee has formed an Elevated Exposure Rate Task Force.

Although the average annual collective dose at BSEP has been one of the highest in the nation over the last several years, the licensee has recently established the above described Dose Reduction Plan in an attempt to reverse this trend. These dose initiatives, if fully implemented, should help to reduce collective doses at BSEP to industry average levels over the next several years.

b. Offsite Doses

The 10 CFR Part 50, Appendix I guidelines on ALARA apply to releases that could cause offsite doses. In addition, routine releases to the environment are governed by 10 CFR 20.1(c), which states that such releases should be as low as reasonably achievable. Appendix I is more explicit in that it establishes radioactive design/dose objectives for liquid and gaseous offsite releases including iodine/particulate radionuclides. Table 2 obtained from the licensee's letter of May 30, 1991, "Recent Effluent Doses to a Maximum Exposed Member of the Public," provides a comparison of Appendix I limits with consolidated plant operating data. A review of the values in Table 2 indicates that the actual performance to control and limit liquid and gaseous radioactive releases from the plant has been well within the Appendix I dose design objectives.

The plant has demonstrated its ability to hold up, process and reuse waste water to a degree that has not necessitated the routine release of significant radioactive liquid wastes. The licensee has demonstrated that the gaseous radwaste system is capable of limiting releases associated with both routine operations and special occurrences, such as reloads, to a fraction of ALARA design objectives (See Table 2). Based on the continued operation of the plant's existing liquid and gaseous radwaste systems, the staff concludes that the anticipated offsite doses during the period covered by the proposed license amendment would remain a fraction of the 10 CFR Part 50, Appendix I, recommended dose design objectives.

The volume of solid waste at BSEP has been below that which was projected in the 1974 FES. In the future, the licensee expects to maintain this at a lower level than the previously projected levels. The staff concludes that the releases from the plant, both onsite and offsite, have remained within the bounds of the FES and have complied with the applicable portions of 10 CFR Parts 20 and 50, as discussed above. As a consequence, the staff would expect releases during the proposed license extension period to remain within these bounds.

3. Environmental Impact of the Uranium Fuel Cycle

In addition to the impacts associated with the operation of the reactor, there are impacts associated with the uranium fuel cycle noted in the 1974 FES. The uranium fuel cycle includes those facilities (e.g., uranium mills and fuel fabrication plants) and processes that are necessary to

support the operation of the reactor. These impacts were based on 30 years of operation of a 1000 MWe light water reactor.

Until recently, the plant operated on a 12-month fuel cycle. However, due to improved fuel designs, the plant is currently employing 18-month fuel cycles. This has reduced the demand for fissionable uranium. The requested increase in the duration of the operating license for BSEP1 is 6 years and 7 months and for BSEP2 it is 4 years 10 months. The additional periods of operation would involve roughly four core reloads for BSEP1 and three core reloads for BSEP2 based on a refueling interval of 18 months. The percentage increase in the uranium fuel requirements for the lifetime of the unit is small. The fuel requirements for the model reactor were assumed to be one initial core load and 29 annual refuelings (approximately one-third of the core is replaced during each refueling). In considering the annual fuel requirements for 40 years for a model reactor, fuel use is averaged over a 40-year operating life (one initial core and 39 refuelings of approximately one-third core each). This averaging results in a slight reduction in annual fuel use for 40 years of operation, as compared to the annual fuel requirement averaged over a 30-year operating life. The net result is an approximately 1.5 percent reduction in the annual fuel requirements for the model reactor due to averaging the initial core over 40 years, instead of 30 years. This small reduction in fuel requirements would not lead to significant changes in the annual impacts associated with the uranium fuel cycle.

The Brunswick Plant units were originally fueled with core loadings containing a maximum enrichment of 2.35 weight percent U-235. Reload cores were initially limited to a maximum enrichment of 2.35 weight percent U-235. In 1988 and 1989, the NRC issued amendments to the BSEP 1 and BSEP 2 licenses which further increased the maximum allowable fuel enrichment for core reloads to 5.0 weight percent U-235 and increased allowable peak rod burnups up to 60,000 megawatt days per metric ton (MWD/MT). The increase in the allowable fuel enrichment and allowable fuel burnups facilitated the implementation of high burnup 18-month fuel cycles rather than the 12-month fuel cycles previously employed. The NRC determined that no changes in the types or amounts of any radio-logical effluents that may be released offsite were likely, as well as no significant increase in the allowable individual or cumulative occupational radiation exposure.

The licensee states that the impact with respect to 10 CFR 51.51, Table S-3 and 10 CFR 51.52, Table S-4 associated with higher fuel burnup and correspondingly longer operating cycles has been extensively addressed by the Atomic Industrial Forum (AIF). In a study prepared for the National Environmental Studies Project (NESP) of the AIF, it was concluded that "the current values in Tables S-3 and S-4, and the generic analyses of environmental dose commitments performed by the NRC Staff, are applicable to fuel burnups up to 60,000 (MWD/MT)," conservatively enveloping the BSEP anticipated operational range of future average core burnups.

The staff concludes that the FES would not be changed with regard to the uranium fuel cycle impact in order to consider 40 years of operation. If anything, the values in the FES become more conservative when a 40-year period of operation is considered, especially in light of refueling cycle intervals which have been extended from 12 months to 18 months. Additional margin in the values contained in 10 CFR 51.51, Table S-3, and 10 CFR 51.52, Table S-4, lies in the fact that the tables were developed based on the anticipated fuel requirements of a 1000 MWe reactor. BSEP1 and BSEP2 are each rated at approximately 820 MWe, thus, resulting in lower fuel requirements. Therefore, the staff concludes that the proposed increase in duration of operation should not alter the conclusions of 10 CFR 51.51, Table S-3; 10 CFR 51.52, Table S-4; the 1974 FES, or the FSAR and is, therefore, acceptable.

4.0 Non-Radiological Impacts

As described in the BSEP FES, the plant is 16 miles south of the nearest boundary of Wilmington, North Carolina, in adjacent New Hanover County, and 2-1/2 miles north of Southport, North Carolina in Brunswick County. The plant is situated on the Atlantic Coastal Plain. Extensive areas of marshes and swamps occur in the region. A large estuary, the Cape Fear Estuary, is an important waterway in the region.

CP&L noted in the FES for the BSEP plant that the source of cooling water is the intake canal which draws water from the Cape Fear estuary, and results in a loss rate from the estuary of 0.36 percent per hour. Since the natural exchange rate (or loss rate) of the lower estuary to the ocean is about 15 percent per hour, the circulating water system could increase the natural loss rate by 2.4 percent. In itself, the use of this amount by water does not constitute a significant impact, and should not change significantly during the periods of extensions.

The plant may use about 300-600 gpm of freshwater drawn from wells at the plant site. This amount of water will have no effect on the groundwater supply outside the exclusion area. Wells are used for consumptive use throughout the Cape Fear region. A major exception is the City of Wilmington which obtains its water from the Cape Fear River. The Castle Hayne aquifer provides the water supply to the Sunny Point Army Terminal and to the municipalities of Long Beach and Southport. In New Hanover County, wells for domestic use are in shallow sand, and wells for larger yields terminate in the Castle Hayne aquifer. This is not expected to change during the periods of the extensions.

The use of the canal for recreation is limited. Hunting and fishing are permitted on the lands adjacent to the plant, except for the plant exclusion area. Fresh water and ocean fishing are popular activities in the region. During the season, duck hunting takes place in the salt marshes. The waterways are used by fishing, motor and sailing boats. The extension of the license period is not expected to affect these activities.

Other non-radiological impacts of the proposed license extension that were reviewed were the irreversible and irretrievable commitment of resources and the preservation of historical or archeological sites. Accordingly to the FES, the operation of BSEP 1 and 2 would have minor impact on the environment. This conclusion is still valid and the extension of plant operations for another 6 years and seven months for BSEP1, and 4 years and 10 months for BSEP2, would not change that conclusion, especially when compared to the impacts associated with construction of replacement power production facilities. While there have been modifications to the plant since the original license was issued, these have involved only readily available construction materials, not materials in short supply. The staff has not determined the need for any significant resource commitments necessary as a result of the proposed license extension.

Through the requirements of Section 106 of the National Historic Preservation Act, the staff has an obligation to make a determination as to the impact of the proposed license extension on any significant nearby historical or archeological sites. The licensee has contacted the North Carolina Department of Cultural Resources with respect to any historical, architectural, or archeological sites that might be impacted by extended operation of the Brunswick plant. The licensee indicated in its letter of June 29, 1990, that the State of North Carolina has indicated there would be no significant impact on any such sites resulting from the extended operation of the BSEP facility. Based on the above, the staff has determined that the proposed license extension would not adversely affect any historical, architectural, or archeological property.

5. Plant Equipment and Modifications

Many modifications and design changes have taken place at the plant since its original construction. Those that involve an unreviewed safety question or require a change to the TS are submitted to the NRC for prior review and approval. This review includes a determination of the environmental effects of the proposed change. As provided by our regulations, other changes may be implemented by the licensee without prior NRC approval. The licensee must first perform a safety evaluation for any such changes, subject to NRC inspection and audit. The licensee also submits such changes to the staff in an annual report that is reviewed by the staff. A complete, detailed description of all the changes, including a summary of the safety evaluation, is included in the annual update of the FSAR. The NRC staff reviews the FSAR updates to verify that the changes did not require prior NRC review and approval. In general, these changes improve plant reliability and do not adversely impact the environment. While it is recognized that the requested license extension will possibly result in further routine design changes and modifications similar in nature to those already conducted, it is not anticipated that these would have any adverse impact on the environment.

Inservice inspection and surveillance of equipment important to safety is addressed in the plant TS. In addition, the TS invoke an American Society of Mechanical Engineers (ASME) Code, Section XI program as required by 10 CFR 50.55a(g) on components categorized as ASME Code, Class 1, 2, and 3. The testing and inspection programs, in conjunction with the TS, are utilized by the licensee to continuously ensure that components are capable of operating when needed and are capable of performing their intended function. The TS and the testing and inspection program serve to reverse most aging effects on replaceable components.

The licensee discussed the impact of license extension on major, difficult to replace components, equipment and plant structures in their May 30, 1990, letter. The items considered in this category are reactor vessel, mechanical equipment, and plant structures. Programmatic activities described therein will continue to be performed irrespective of the proposed plant operating expiration date.

ALTERNATIVE USE OF RESOURCES

This action does not involve the use of resources not previously considered in the FES in relation to the operation of the plant.

BASIS AND CONCLUSION FOR NOT PREPARING AN ENVIRONMENTAL IMPACT STATEMENT

The conclusions of the January 1974 Final Environmental Statement remain valid, and operation of the plant has demonstrated that its impact on the environment has been within the bounds predicted by the FES. The staff has reviewed the proposed license amendment relative to the requirements set forth in 10 CFR Part 51. Based on this assessment, the staff concludes that there are no significant radiological or non-radiological impacts associated with the proposed action and that the issuance of the proposed license amendment will have no significant impact on the quality of the human environment. Therefore, pursuant to 10 CFR 51.31, an environmental impact statement need not be prepared for this action.

Dated at Rockville, Maryland this 30th day of August 1991.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

TABLE-1

Population Density Table

<u>Area</u>	<u>1980</u>	<u>2010</u>	<u>2017</u>
0 to 1 mile	17	49	63
0 to 2 miles	37	100	126
0 to 3 miles	94	254	320
0 to 4 miles	64	174	220
0 to 5 miles	51	135	169
0 to 10 miles	40	94	115
0 to 20 miles	67	133	156
0 to 30 miles	49	97	114
0 to 40 miles	33	64	75
0 to 50 miles	29	53	61

Note: Table-1 represents a summary of the 1980 census data in the form of population density (population per square mile), including a projection to the year 2010. The data is also extrapolated to the year 2017 for comparisons with the period of license extension.

REFERENCES:

1. Updated Final Safety Analysis Report, Brunswick Steam Electric Plant Units 1 and 2.
2. Final Safety Analysis Report, Brunswick Steam Electric Plant Units 1 and 2.

TABLE 2
 Recent Effluent Doses
 to a Maximum
 Exposed Member of the Public

	10 CFR 50 Appendix I (mrem/yr)	Doses Calculated by LADTAB & GASPAR Codes (mrem/yr)			
		<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
<u>Gaseous</u>					
Total Body	5	0.12	0.10	0.05	0.03
Thyroid	15	0.17	0.35	0.08	0.08
<u>Liquid</u>					
Total Body	3	0.002	0.006	0.007	0.007
Thyroid	10	0.001	0.005	0.006	0.006

UNITED STATES NUCLEAR REGULATORY COMMISSIONCAROLINA POWER & LIGHT COMPANYDOCKET NOS. 50-325 AND 50-324NOTICE OF ISSUANCE OF ENVIRONMENTAL ASSESSMENTAND FINDING OF NO SIGNIFICANT IMPACT

The United States Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. DPR-71 and DRP-62 issued to the Carolina Power & Light Company (the licensee) for the operation of the Brunswick Steam Electric Plant, Units 1 and 2 (BSEP1 and BSEP2), located in Brunswick County, North Carolina.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action

The amendments would consist of changes to the operating licenses to extend the expiration date to September 8, 2016, for BSEP1 and to December 27, 2014, for BSEP2. The application for a license amendment was submitted August 17, 1987, as supplemented May 30 and June 29, 1990, and August 8 and August 29, 1991. The Commission's staff has prepared an Environmental Assessment of the proposed action, dated August 30, 1991.

Summary of Environmental Assessment

The Commission's staff has reviewed the potential environmental impact of the proposed change in expiration date of the operating licenses for BSEP1 and BSEP2. This evaluation considered the previous environmental studies, including, the Final Environmental Statement for BSEP1 and BSEP2, and more recent NRC Policy.

Radiological Impacts

The staff concludes that the Exclusion Area (owned and controlled by the licensee), the Low Population Zone (LPZ), the area within 5 miles of the site, and the nearest population center distance will probably remain unchanged from those described in the Brunswick Steam Electric Plant (BSEP) Final Environmental Statement (FES). Based on the 1980 census, indications are that the population density within the LPZ surrounding the site has increased more slowly than projected in the original Final Safety Analysis Report (FSAR), which was based on the 1970 census. For example, for the year 1996, the projected population within 5 miles of the site based on the 1980 census is 69 percent of the number projected from the 1970 census.

The additional period of plant operation, approximately 6 years and 7 months for Unit 1 and 4 years and 10 months for Unit 2, would not significantly affect the probability or consequences of any reactor accident. Station radiological effluents to unrestricted areas during normal operation have been well within Commission regulations regarding as-low-as-reasonably-achievable (ALARA) limits and are indicative of future releases. Future technologies may serve to further reduce effluents from the site. The proposed additional years of reactor operation do not increase the annual public risk from reactor operation.

With regard to the occupational exposure for normal plant operations, the licensee is striving for further dose reduction utilizing ALARA programs, dose-saving plant modifications, and the use of robotics to reduce increased doses from probable increased maintenance and corrosion product build-up. Accordingly,

annual radiological impacts on man, both offsite and onsite, are not more severe than those previously estimated in the FES, and the staff's previous cost-benefit conclusions remain valid.

With respect to normal conditions of transport and possible accidents during transport, the environmental impacts attributable to transportation of fuel and waste from BSEP would be bounded as set forth in Summary Table S-4 of 10 CFR Part 51.52. The values in Table S-4 would continue to represent the contribution to the environmental costs of transportation costs associated with plant operation.

Non-Radiological Impacts

The Commission has concluded that the proposed extensions will not cause a significant increase in the impacts to the environment and will not change any conclusions reached by the Commission in the FES.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has reviewed the proposed changes to the expiration date of the Facility Operating License relative to the requirements set forth in 10 CFR Part 51. Based upon the environmental assessment, the staff concluded that there are no significant radiological or non-radiological impacts associated with the proposed action and that the proposed license amendment will not have a significant effect on the quality of the human environment. Therefore, the Commission has determined, pursuant to 10 CFR 51.31, not to prepare an environmental impact statement for the proposed amendment.

For further details with respect to the action, see (1) the application for amendment dated August 17, 1987, as supplemented May 30 and June 29, 1990, and August 8 and August 29, 1991, (2) the "Final Environmental Statement Related to the Continued Construction and Proposed Issuance of an Operating License for the Brunswick Steam Electric Plant, Units 1 and 2," issued by the Unites States Atomic Energy Commission in January 1984, and (3) the Environmental Assessment dated August 30, 1991 .

These documents are available for public inspection at the Commission's Public Document Room, 2121 L Street, N. W., Washington, D.C., and at the University of North Carolina at Wilmington, William Madison Randall Library, 601 S. College Road, Wilmington, North Carolina 28403-3297.

Dated at Rockville, Maryland, this 30th day of August 1991.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Elinor G. Adensam, Director
Project Directorate II-1
Division of Reactor Projects - I/II

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