

September 28, 1981

Docket Nos. 50-325
and 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. 40 and 63 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 May 13, 1981.

These amendments change the Technical Specifications to delete Sample Station No. 36 from the Radiological Environmental Monitoring Program. We have made some clerical changes to your proposed Technical Specification revisions. These changes have been discussed with and agreed to by members of your staff.

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

Sincerely,

ORIGINAL SIGNED BY

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

cp
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Enclosures:

- 1. Amendment No. 40 to DPR-71
- 2. Amendment No. 63 to DPR-62
- 3. Safety Evaluation
- 4. Notice

cc w/enclosures:
See next page

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F.R. NOTICE
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Mr. J. A. Jones
Carolina Power & Light Company

cc:

Richard E. Jones, Esquire
Carolina Power & Light Company
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Raleigh, North Carolina 27602

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P. O. Box 249
Bolivia, North Carolina 28422

Denny McGuire (Ms)
State Clearinghouse
Division of Policy Development
116 West Jones Street
Raleigh, North Carolina 27603

Southport - Brunswick County Library
109 W. Moore Street
Southport, North Carolina 28461

U. S. Environmental Protection Agency
Region IV Office
ATTN: EIS COORDINATOR
345 Courtland Street, N. W.
Atlanta, Georgia 30308

Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 1057
Southport, North Carolina 28461

Mr. Charles R. Dietz
Plant Manager
P. O. Box 458
Southport, North Carolina 28461



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. 40
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 May 13, 1981, 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. 40, 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



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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 28, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 40

FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Remove the following pages and replace with identically numbered pages.

4-9

4-9a

4-14

4-17

4-18

Figure No. 4.2-1B

4.2.6

Soil Sampling

Soil samples are collected from ten locations every three years and beach sand is collected from three locations semiannually. Analysis of soil samples includes ^{90}Sr and gamma spectrometry.

4.2.7

Milk Sampling

Milk samples will be collected from either one or two locations on a weekly frequency. One sampling station is a family cow that does not produce sufficient milk for a sample every week. Within seven days of sampling, an ^{131}I analysis will be completed using an analytical procedure similar in sensitivity to the procedure outlined in Regulatory Guide 4.3. Samples of individual locations will be composited monthly and analyzed for ^{89}Sr , ^{90}Sr , and by gamma spectrometry. To determine the presence of an infant, child or teen consuming the milk from the cow(s) at sample station 35 (Steven's Farm), a survey on the usage of the milk should be conducted at least once per calendar quarter. The result of this survey should be included in the semiannual Radiation Effluent Release Report.

4.2.8

Terrestrial Vegetation

Samples of the leafy portions of natural terrestrial vegetation will be collected quarterly from four locations in the vicinity of the plant. Samples will be analyzed by gamma spectrometry.

4.2.9

Food Crops

Edible portions of food crops will be collected from two locations three times during the growing season. Samples will be analyzed by gamma spectrometry.

4.2.10

Fodder and Feed Crops

Feed crops will be collected at two locations on a monthly frequency during the growing season. Samples will be analyzed by gamma spectrometry.

Table 4.2-1 (Cont'd)

<u>Sample Station</u>	<u>Location</u>	<u>Sample Types</u>	<u>Sample Frequency</u>	<u>**Sample Size</u>
31	Ocean approximately 1/2 mile west of discharge	(1) Surface Water (SW) (2) Bottom Sediments (SD) (3) Aquatic Vegetation (AV) (4) Zooplankton (ZO) (5) Benthic Organisms (BO)	(1) Monthly (2) Semiannual (3) Semiannual (4) Semiannual (5) Semiannual	(1) 2 liters (2) 0.5 kilogram wet (3) 0.5 kilogram wet (4) 10 cc wet (5) 10 cc wet
32	Discharge canal	(1) Surface Water (SW)	(1) Monthly	(1) 2 liters
33	Discharge canal at Stilling Pond	(1) Bottom Sediments (SD)	(1) Semiannual	(1) 0.5 kilogram wet
34	Discharge canal near the plant	(1) Bottom Sediments (SD)	(1) Semiannual	(1) 0.5 kilogram wet
35	River Road & the Stevens Farm	(1) Milk (MS) (2) Soil Sample (SS) (3) Fodder & Feed (FO) (4) Groundwater (GW)	(1) Weekly* (2) Three Years (3) Monthly during growing season (4) Quarterly	(1) 2 liters (2) 0.5 kilogram (3) 0.5 kilogram (4) 2 liters
37	14.5 miles NNW off Highway 17, Johnson Farm	(1) Milk (MS) (2) Soil Sample (SS) (3) Fodder & Feed (FO) (4) Terrestrial Vegetation (TV)	(1) Weekly (2) Three Years (3) Monthly during growing season (4) Quarterly	(1) 2 liters (2) 0.5 kilogram (3) 0.5 kilogram (4) 0.5 Kilogram

IV. Ground Water

- A. Quarterly sampling at six (6) locations
- B. Analyses:
 - 1. Gamma spectrometry
 - 2. Tritium

V. Bottom Sediments

- A. Semiannual sampling at six locations
- B. Analyses:
 - 1. ^{90}Sr
 - 2. Gamma spectrometry

VI. Soil Sampling

- A. Ten locations every three years and semiannual sampling at the other three locations
- B. Analyses:
 - 1. ^{90}Sr
 - 2. Gamma spectrometry

VII. Milk Sampling

- A. Weekly sampling at either one or two locations depending upon availability.
- B. Analyses:
 - 1. Iodine within seven days of collection (0.5 pCi/l sensitivity)
 - 2. ^{89}Sr , ^{90}Sr (monthly composite of individual locations)
 - 3. Gamma spectrometry (monthly composite of individual locations)

VIII. Terrestrial Vegetation

- A. Quarterly at four locations
- B. Analyses: Gamma spectrometry

IX. Food Crops

- A. Three times during the growing season from two locations
- B. Analyses: Gamma spectrometry

X. Fodder and Feed Crops

- A. Monthly samples taken at two locations during the growing season
- B. Analyses: Gamma spectrometry

XI. Aquatic Vegetation

- A. Semiannual sampling at three locations near the plant discharge off Caswell Beach and at a fourth location away from the influence of the plant
- B. Analyses:
 - 1. ^{89}Sr , ^{90}Sr
 - 2. Gamma spectrometry

XII. Zooplankton

- A. Semiannual sampling at three locations near the plant discharge off Caswell Beach and a fourth location away from the influence of the plant.
- B. Analyses:
 - 1. ^{89}Sr , ^{90}Sr
 - 2. Gamma spectrometry

XIII. Benthic Organisms

- A. Semiannual sampling at three locations near the plant discharge off Caswell Beach and at a fourth location away from the influence of the plant
- B. Analyses:
 - 1. ^{89}Sr , ^{90}Sr
 - 2. Gamma spectrometry

XIV. Fish

- A. Quarterly sampling at two locations
- B. Analyses of flesh: Gamma spectrometry

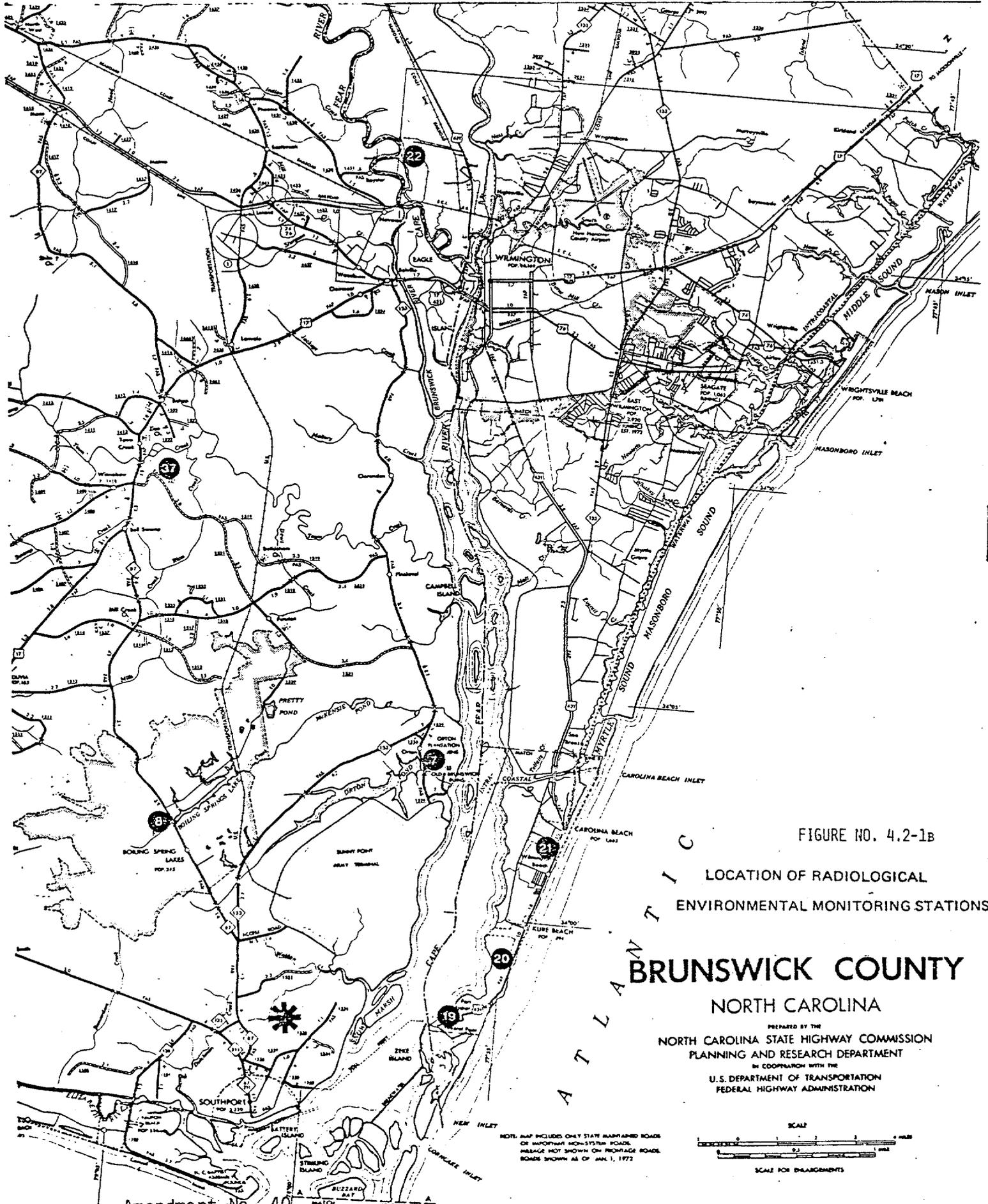


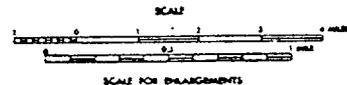
FIGURE NO. 4.2-1b

LOCATION OF RADIOLOGICAL ENVIRONMENTAL MONITORING STATIONS

BRUNSWICK COUNTY

NORTH CAROLINA

PREPARED BY THE
 NORTH CAROLINA STATE HIGHWAY COMMISSION
 PLANNING AND RESEARCH DEPARTMENT
 IN COOPERATION WITH THE
 U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION



NOTE: MAP INCLUDES ONLY STATE MAINTAINED ROADS OR IMPORTANT NON-STATE ROADS. BRIDGE NOT SHOWN ON FEW-LANE ROADS. ROADS SHOWN AS OF JAN. 1, 1972



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. 63
License No. DPR-62

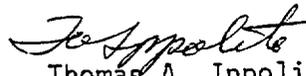
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Carolina Power & Light Company dated May 13, 1981, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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. 63, 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


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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: September 28, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 63

FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Remove the following pages and replace with identically numbered pages.

4-9

4-9a

4-14

4-17

4-18

Figure No. 4.2-1B

4.2.6 Soil Sampling

Soil samples are collected from ten locations every three years and beach sand is collected from three locations semiannually. Analysis of soil samples includes ^{90}Sr and gamma spectrometry.

4.2.7 Milk Sampling

Milk samples will be collected from either one or two locations on a weekly frequency. One sampling station is a family cow that does not produce sufficient milk for a sample every week. Within seven days of sampling, an ^{131}I analysis will be completed using an analytical procedure similar in sensitivity to the procedure outlined in Regulatory Guide 4.3. Samples of individual locations will be composited monthly and analyzed for ^{89}Sr , ^{90}Sr , and by gamma spectrometry. To determine the presence of an infant, child or teen consuming the milk from the cow(s) at sample station 35 (Steven's Farm), a survey on the usage of the milk should be conducted at least once per calendar quarter. The result of this survey should be included in the semiannual Radiation Effluent Release Report.

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Samples of the leafy portions of natural terrestrial vegetation will be collected quarterly from four locations in the vicinity of the plant. Samples will be analyzed by gamma spectrometry.

4.2.9 Food Crops

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Fodder and Feed Crops

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Table 4.2-1 (Cont'd)

<u>Sample Station</u>	<u>Location</u>	<u>Sample Types</u>	<u>Sample Frequency</u>	<u>**Sample Size</u>
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V. Bottom Sediments

- A. Semiannual sampling at six locations
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VI. Soil Sampling

- A. Ten locations every three years and semiannual sampling at the other three locations
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VII. Milk Sampling

- A. Weekly sampling at either one or two locations depending upon availability.
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 - 1. Iodine within seven days of collection (0.5 pCi/l sensitivity)
 - 2. ^{89}Sr , ^{90}Sr (monthly composite of individual locations)
 - 3. Gamma spectrometry (monthly composite of individual locations)

VIII. Terrestrial Vegetation

- A. Quarterly at four locations
- B. Analyses: Gamma spectrometry

IX. Food Crops

- A. Three times during the growing season from two locations
- B. Analyses: Gamma spectrometry

X. Fodder and Feed Crops

- A. Monthly samples taken at two locations during the growing season
- B. Analyses: Gamma spectrometry

XI. Aquatic Vegetation

- A. Semiannual sampling at three locations near the plant discharge off Caswell Beach and at a fourth location away from the influence of the plant.
- B. Analyses:
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XII. Zooplankton

- A. Semiannual sampling at three locations near the plant discharge off Caswell Beach and a fourth location away from the influence of the plant.
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XIII. Benthic Organisms

- A. Semiannual sampling at three locations near the plant discharge off Caswell Beach and at a fourth location away from the influence of the plant
- B. Analyses:
 - 1. ^{89}Sr , ^{90}Sr
 - 2. Gamma spectrometry

XIV. Fish

- A. Quarterly sampling at two locations
- B. Analyses of flesh: Gamma spectrometry

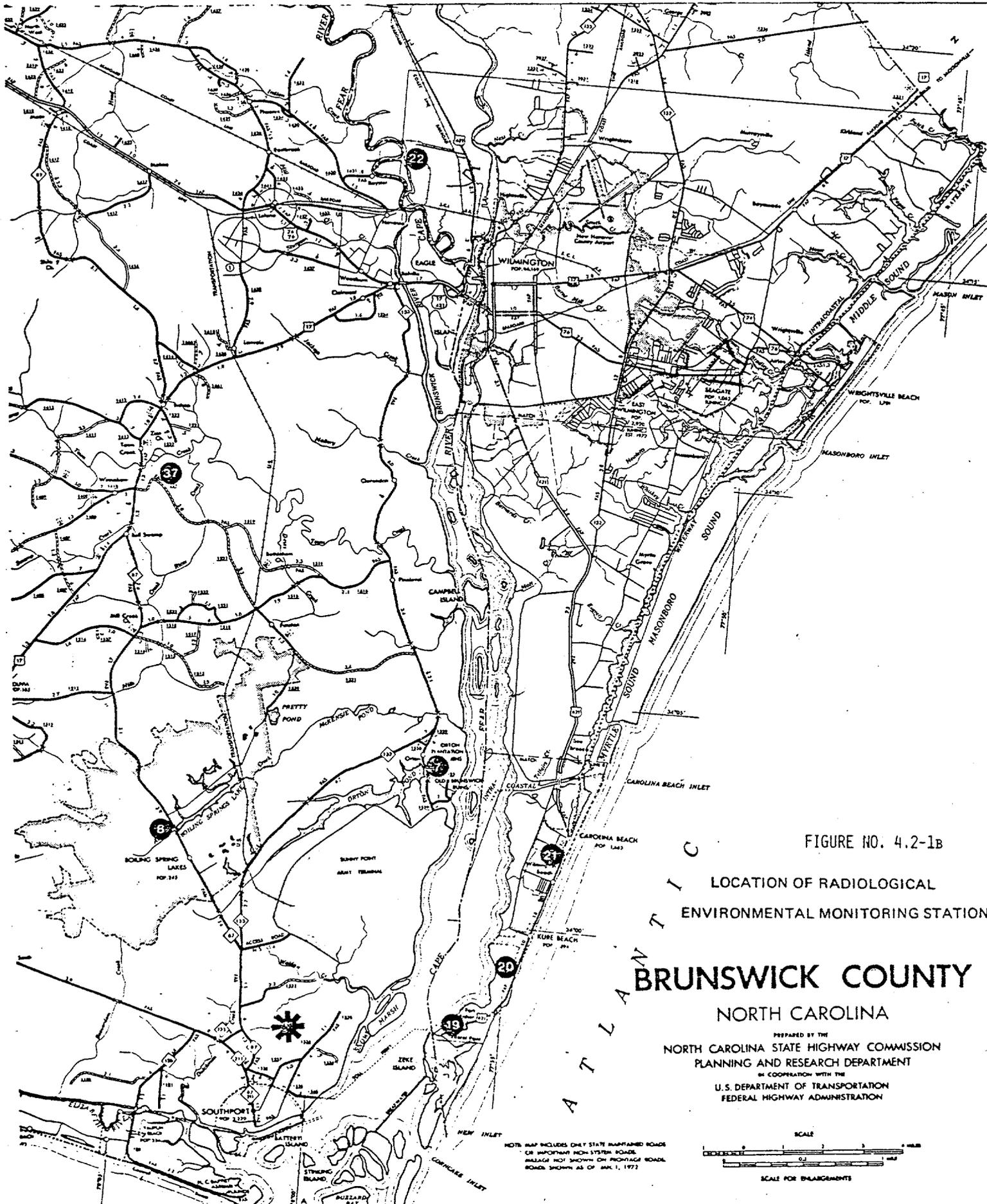


FIGURE NO. 4.2-1b

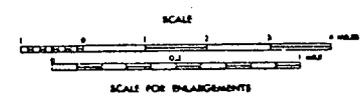
LOCATION OF RADIOLOGICAL ENVIRONMENTAL MONITORING STATIONS

BRUNSWICK COUNTY

NORTH CAROLINA

PREPARED BY THE
 NORTH CAROLINA STATE HIGHWAY COMMISSION
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 FEDERAL HIGHWAY ADMINISTRATION

NOTE: MAP INCLUDES ONLY STATE MAINTAINED ROADS OR IMPORTANT NON-STATE ROADS. ROAD NOT SHOWN ON HIGHWAY ROAD, ROAD SHOWN AS OF MAR. 1, 1972





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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 40 TO FACILITY LICENSE NO. DPR-71 AND
AMENDMENT NO. 63 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 May 13, 1981, 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), Unit Nos. 1 and 2. The proposed changes, which delete Sample Station No. 36 from the Radiological Environmental Monitoring Program, were requested because milk can no longer be obtained from that location.

II. Evaluation

The BSEP Technical Specifications state that any location from which milk can no longer be obtained may be dropped from the surveillance program by the licensee and that the NRC shall be provided with an appropriate explanation within 30 days. The farmer at Sample Station No. 36 is no longer in the dairy business and his milk cows are no longer available for sampling. Therefore, deletion of Sample Station No. 36 from the Technical Specifications is warranted.

To determine if a replacement site was available, we reviewed the 1980 Environmental Radiological Monitoring Report and the Brunswick Milk Animal Survey Results dated April 30, 1981. Based on this review and on subsequent discussions with the licensee, we conclude that there are presently no milk animals within a five mile radius of BSEP that could be used in the program other than the single cow presently in the program at Sample Station No. 35.

We find, in summary, that deletion of Sample Station No. 36 is warranted.

III. 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.

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IV. 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: September 28, 1981

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. 40 and 63 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 delete one sample station from the Radiological Environmental Monitoring Program.

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.

-2-

For further details with respect to this action, see (1) the application for amendments dated May 13, 1981, (2) Amendment Nos. 40 and 63 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 28th day of September 1981.

FOR THE NUCLEAR REGULATORY COMMISSION


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