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

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USNRC

February 22, 1985

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U.S. Nuclear Regulatory Commission  
Washington, DC 20555

In the Matter of  
DUKE POWER COMPANY, ET AL.  
(Catawba Nuclear Station, Units 1 and 2)  
Docket Nos. 50-413 and 50-414-0C

Dear Members of the Appeal Board:

I am forwarding with this letter a copy of Facility Operating License No. NPF-35, for Catawba Nuclear Station, Unit 1, issued January 17, 1985 together with related materials. Notice of issuance of this license appeared in the Federal Register of January 24, 1985 (50 Fed. Reg. 3435). The Technical Specifications applicable to License No. NPF-35, however, are not included, but are available on request.

Sincerely,

George E. Johnson  
Counsel for NRC Staff

Enclosures: As stated

cc w/ enclosures: Service list

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PDR ADOCK 05000413  
G PDR



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

January 17, 1985

Docket No. 50-413

Mr. H. B. Tucker, Vice President  
Nuclear Production Department  
Duke Power Company  
422 South Church Street  
Charlotte, North Carolina 28242

Dear Mr. Tucker:

Subject: Issuance of Facility Operating License No. NPF-35 -  
Catawba Nuclear Station, Unit 1

The NRC has issued the enclosed Facility Operating License NPF-35 together with Technical Specifications and Environmental Protection Plan for the Catawba Nuclear Station, Unit 1. The license authorizes operation at 100 percent power (3411 megawatts thermal).

A safety evaluation supporting changes to license conditions 2.C.(6) and 2.C.(22) and deletion of license conditions 2.C.(20) and 2.C.(25) contained in Facility Operating License NPF-31 is enclosed. This safety evaluation will be incorporated in Supplement No. 5 to the Catawba Safety Evaluation Report.

Also enclosed is a copy of a related notice, the original of which has been forwarded to the Office of the Federal Register for publication.

Five signed copies of Amendment No. 3 to Indemnity Agreement No. B-100 which covers the activities authorized under License No. NPF-35 are enclosed. Please sign all copies and return one copy to this office.

Sincerely,

A handwritten signature in dark ink, appearing to read "Darrell G. Eisenhut".

Darrell G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

Enclosures:

1. Facility Operating License NPF-35
2. Safety Evaluation
3. Federal Register Notice
4. Amendment No. 3 to Indemnity Agreement B-100

cc w/enclosures:  
See next page

CATAWBA

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County Manager of York County  
York County Courthouse  
York, South Carolina 29745



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

T-1-LOLL NRRL

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-413

CATAWBA NUCLEAR STATION, UNIT 1

FACILITY OPERATING LICENSE

License No. NP-35

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for license filed by the Duke Power Company acting for itself and North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc. (the licensees) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I; and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Catawba Nuclear Station, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-116 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
  - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);
  - E. Duke Power Company\* is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
  - F. The licensees have satisfied the applicable provisions of 10 CFR Part

\*Duke Power Company is authorized to act as agent for the North Carolina Electric Membership Corporation and the Saluda River Electric Cooperative, Inc., and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

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140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;

- G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-35, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
  - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings and the Partial Initial Decisions issued by the Atomic Safety and Licensing Boards dated June 22, September 18, and November 27, 1984, regarding this facility and satisfaction of conditions therein imposed, except as hereinafter set forth, and the Commission's vote on January 17, 1985, Facility Operating License No. NPF-31 issued on December 6, 1984, is superseded by Facility Operating License No. NPF-35 hereby issued to the Duke Power Company, the North Carolina Electric Membership Corporation, and the Saluda River Electric Cooperative, Inc., (the licensees) to read as follows:
- A. This license applies to the Catawba Nuclear Station, Unit 1, a pressurized water reactor and associated equipment (the facility) owned by the Duke Power Company, the North Carolina Electric Membership Corporation, and the Saluda River Electric Cooperative, Inc. The facility is located on the licensees' site in York County, South Carolina, on the shore of Lake Wylie approximately 6 miles north of Rock Hill, South Carolina, and is described in Duke Power Company's Final Safety Analysis Report, as supplemented and amended through Revision No. 11, and in its Environmental Report, as supplemented and amended through Revision No. 6;
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
    - (1) Duke Power Company, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this license;
    - (2) North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc., to possess the facility at the designated location in York County, South Carolina, in accordance with the procedures and limitations set forth in this license;

- (3) Duke Power Company, pursuant to the Act and 10 CFR Part 70 to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended through Revision No. 11;
  - (4) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
  - (5) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
  - (6) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein.
  - (7) Duke Power Company, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of McGuire Nuclear Station, Units 1 and 2, and Oconee Nuclear Station, Units 1, 2 and 3.
- C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Duke Power Company is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Duke Power Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Initial Startup Test Program (Section 14, SER, SSER #3)\*

Duke Power Company shall conduct those aspects of the post-fuel-loading initial test program described in Chapter 14 of the FSAR, as amended, which are consistent with the limits of this license without making any major modifications unless such modifications have prior NRC approval. Major modifications are defined as:

- (a) elimination of any safety-related test\*\*;
- (b) modification of objectives, test method, or acceptance criteria for any safety-related test;
- (c) performance of any safety-related test at a power level different from that stated in the FSAR by more than 5 percent of rated power;
- (d) failure to satisfactorily complete the entire initial startup test program by the time core burnup equals 120 effective full power days;
- (e) deviation from initial test program administrative procedures or quality assurance controls described in the FSAR; and
- (f) delays in test program in excess of 30 days (14 days if power level exceeds 50 percent), concurrent with power operation. If continued power operation is desired during a delay, Duke Power Company shall provide justification that adequate testing has been performed and evaluated to demonstrate that the facility can be operated at the planned power level with reasonable assurance that the health and safety of the public will not be endangered.

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\*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplement; wherein the license condition is discussed.

\*\*Safety-related tests are those tests which verify the design, construction and operation of safety-related systems, structures, and equipment.



(4) Antitrust Conditions

Duke Power Company shall comply with the antitrust conditions delineated in Appendix C to this license.

(5) Inservice Testing of Pumps and Valves (Section 3.9.6, SSER #2, SSER #4)

Pursuant to 10 CFR Part 50.55a and for the reasons set forth in Section 3.9.6 of SSER #2, the relief identified in the submittals dated March 9, 1983, July 10, 13, 18, 23, 27, October 1, and November 6, 1984, that Duke Power Company has requested from the pump and valve testing requirements of 10 CFR Part 50, Section 50.55a(g)(3) and (g)(4)(i) is granted for that portion of the initial 120-month period until the staff completes its review or until December 1, 1986, whichever is earlier.

(6) Inservice Inspection Program (Sections 5.2.4 and 6.6, SSER #2\*)

By May 31, 1985, Duke Power Company shall submit the balance of the inservice inspection program as described in its letter dated January 8, 1985, for staff review and approval.

(7) Environmental Equipment Qualification (Section 3.11, SER, SSER #3, SSER #4)

Prior to March 31, 1985, Duke Power Company shall environmentally qualify all electrical equipment as required by 10 CFR 50.49.

(8) Fire Protection Program (Section 9.5.1, SER, SSER #1, SSER #2, SSER #3, SSER #4)

(a) Duke Power Company shall maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility through Revision 11 and as approved in the SER through Supplement 4, subject to provisions b & c below.

(b) Duke Power Company may make no change to features of the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change Duke Power Company must submit an application for license amendment pursuant to 10 CFR 50.90.

(c) Duke Power Company may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval, provided:

\*Safety evaluation attached to D. Eisenhut letter dated January 17, 1985. To be incorporated in SSER #5

- (i) such changes do not otherwise involve a change in a license condition or technical specification or involve an unreviewed safety question (see 10 CFR 50.59).
- (ii) such changes do not result in failure to complete the fire protection program approved by the Commission prior to license issuance.

Duke Power Company shall maintain, in an auditable form, a current record of all such changes including an analysis of the effects of the change on the fire protection program and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported annually to the Director of the Office of Nuclear Reactor Regulation together with supporting analyses.

(9) Turbine Missiles (Section 3.5.1.3, SER)

Duke Power Company shall submit for NRC staff approval by December 6, 1987, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities acceptable to the NRC staff or volumetrically inspect all low pressure turbine rotors within three years or by the second refueling outage, whichever is later, and thereafter every three years or every other refueling outage until a maintenance program is approved by the staff.

(10) Operating Staff Experience Requirements (Section 13.1.2.3, SSER #3, SSER #4)

Duke Power Company (DPC) shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a similar type plant, including at least six weeks at power levels greater than 20% of full power, and who has had start-up and shutdown experience. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the RO level will be evaluated on a case-by-case basis. Advisors shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained in the role of the advisors. These advisors shall be retained until the experience levels identified in the first sentence above have been achieved. The NRC shall be notified at least 30 days prior to the date DPC proposes to release the advisors from further service.

- (11) Detailed Control Room Design Review, I.D.1 (Section 18.0, SER, SSER #?)

Duke Power Company shall correct all human engineering deficiencies according to the schedule contained in the letter from Duke Power Company dated February 20, 1984.

- (12) Emergency Response Capabilities (Generic Letter 82-33, Supplement 1 to NUREG-0737).

- (a) Regulatory Guide 1.97, Revision 2 Compliance (Section 7.5.2, SSER #4)

Prior to startup following the first refueling outage, Duke Power Company shall implement modifications (installation or upgrade) for those items listed below consistent with the guidance of Regulatory Guide 1.97, Revision 2 unless prior approval of an alternate design of these items is granted by the NRC staff. These items, as listed in Duke Power Company's letter of September 26, 1983, are: (a) reactor coolant system cold leg water temperature, (b) containment sump water level, (c) residual heat removal heat exchanger outlet temperature, (d) accumulator tank level and pressure, (e) steam generator pressure, (f) containment sump water temperature, (g) chemical and volume control system makeup flow and letdown flow, (h) emergency ventilation damper position, (i) area radiation, and (j) plant airborne and area radiation.

- (b) Safety Parameter Display System (SPDS)

Prior to April 1, 1985, Duke Power Company shall have the SPDS operational.

- (13) Anticipatory Reactor Trip, II.K.3.10 (Section 5.2.2, SER)

Prior to exceeding 70% power, Duke Power Company shall complete the described turbine trip tests to verify that PORVs will not be challenged when the anticipatory trip bypass is in effect.

- (14) Hydrogen Control Measures, II.B.7 (Section 6.2.5, Appendix C, SER; Section 6.2.5, SSER #2, SSER #3, SSER #4)

Prior to April 1, 1985, upgraded analyses and tests shall be provided on the following issues and submitted for staff review and approval:

- (a) thermal response of the containment atmosphere and essential equipment for a spectrum of accident sequences using revised heat transfer models.

- (b) effects of upper compartment burns on the operation and survival of air return fans and ice condenser doors.
- (c) operability of the glow plug igniter in a spray environment typical of that expected in the upper compartment of the containment.

(15) Instrumentation for Detection of Inadequate Core Cooling, II.F.2 (Section 4.4.3.4, SER, SSER #2)

Prior to startup following the first refueling outage, Duke Power Company shall complete the upgrade of the existing subcooling margin monitor and the existing backup display.

(16) Steam Generator Tube Rupture (Section 15.4.4, SER, SSER #2)

Prior to startup following the first refueling outage, Duke Power Company shall submit for NRC staff review and approval an analysis which demonstrates that the steam generator single-tube rupture analysis presented in the FSAR is the most severe case with respect to the release of fission products and calculated doses. Consistent with the analytical assumptions, Duke Power Company shall propose any necessary changes to Appendix A to this license.

(17) Main Steam Line Break (MSLB) Inside Containment (Section 6.2.1.1, SER, SSER #2, SSER #4)

- (a) Prior to startup following the first refueling outage, Duke Power Company shall submit for NRC review and approval the results of a completed program of tests and analyses to confirm the validity and accuracy of the models and assumptions employed in the revised containment response analysis for MSLB accidents. This program shall include, but not be limited to, the following elements:
  - (i) Hydraulic tests to quantify key parameters related to drain flow model input and assumptions for drain region configurations representative of those in the plant, and uncertainty analysis of measured and computed parameters.
  - (ii) Supplementary tests or analyses to address (i) the applicability of drain flow tests conducted in air to steam environments and (ii) the effect of thermal gradients within the drain flow liquid sheets and droplets.
  - (iii) Revised containment response analyses which incorporate the results of the drain flow test program and address the thermal response to dead-ended compartments.

- (iv) Additional containment response sensitivity analyses to investigate the effect of drain water temperature and flow rate, and uncertainties in parameters determined by test.
  - (v) Scaled tests or detailed mass transport analyses for a spectrum of break locations to quantify the impact of break conditions on thermal gradients and non-condensable gas distribution in containment and on ice condenser performance.
- (b) During the interim period of operation, Duke Power Company shall submit to the NRC staff bimonthly reports on the progress of the above confirmatory research program of tests and analyses regarding containment response for MSLB accidents.
- (18) Residual Heat Removal System (Section 5.4.4, SER, SSER #2; Section 15.4.4, SSER #3, SSER #4)\*
- Prior to startup following the first refueling outage, Duke Power Company shall upgrade the pressurizer power operated relief valves (PORVs) and the steam generator PORVs to safety related.
- (19) Seismic Equipment Qualification (Section 3.10, SSER #2, SSER #3, SSER #4)
- A seismic test will be performed utilizing a generic mounting scheme with a GLASTIC pad and fiberglass bushing for electrical isolation to verify the acceptability of the existing mounting. This test will be completed by July 1985.
- (20) Transamerica Delaval, Inc. (TDI) Diesel Generators (Section 8.3.1, SSER #4)
- Prior to startup following the first refueling outage, Duke Power Company shall implement the TDI Owners' Group recommendations.
- (21) Generic Letter 83-28 (Section 15.6, SSER #4,\*\*)
- Duke Power Company shall submit responses to and implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in its November 2, and December 31, 1984, letters.

\* Requires exemption; see paragraph 2.D

\*\*Safety evaluation attached to D. Eisenhut letter dated January 17, 1985. To be incorporated in SSER #5.

(22) Progress of Offsite Emergency Preparedness (Section 13.3, SER, SSER #1, SSER #2, SSER #3, SSER #4)

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

(23) Emergency Preparedness Issues (ASLB PID, 9/18/84)

By June 4, 1985, Duke Power Company shall have submitted for staff review and received staff approval on the following items:

1. The Public Information Brochure shall state that high levels of radiation are harmful to health and may be life threatening. Such statements shall be contained within that portion of the brochure that deals with actions to be taken in the event of an emergency.
  2. The warning signs and decals shall specify the types of emergencies they cover including nuclear.
  3. The warning signs and decals shall notify transients as to where they can obtain local emergency information, as provided in NUREG-0654 Evaluation Criterion II.G.2.
  4. The emergency plans shall reflect the kinds of locations within the plume exposure EPZ wherein the warning signs and decals and emergency response information will be placed and the procedures employed to assure that sufficient numbers are being distributed to effectively reach transients, and that the plans are implemented.
  5. Comprehensive plans shall provide for early notification to Carowinds of a radiological emergency at Catawba and for evacuation of Carowinds. The plans shall describe the responsibilities of the emergency response organizations of Mecklenburg and York Counties and provide for the coordination of their efforts among themselves and with Carowinds' officials. The plans shall provide for immediate notification of patrons and staff of Carowinds at the time of the precautionary closing of the park, of the cause of the emergency. The means to implement the plans shall be made available.
- D. The facility requires exemptions from certain requirements of Appendices A, E and J to 10 CFR Part 50. These include (a) partial exemption from General Design Criterion 1 of Appendix A, with respect to the upgrade to safety-related of the pressurizer power

operated relief valves (PORVs) and steam generator PORVs until first refueling (Section 5.4.4 of SER and SSER 2, and Section 15.4.4 of SSERs 3 and 4), (b) exemption from the requirements of Appendix E, IV.F, insofar as they may require the active participation of all Crisis Management Center personnel for the Catawba Station emergency preparedness exercises (Section 13.3 of SSER 4), (c) partial exemption from the requirement of paragraph III.D.2(b)(ii) of Appendix J, the testing of containment airlocks at times when the containment integrity is not required (Section 6.2.6 of the SER, and SSERs 3 and 4), (d) exemption from the requirement of paragraph III.A.(d) of Appendix J, insofar as it requires the venting and draining of lines for type A tests (Section 6.2.6 of SSER 3), and (e) partial exemption from the requirements of paragraph III.B of Appendix J, as it relates to bellows testing (Section 6.2.6 of the SER and SSER 3). These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. These exemptions are, therefore, hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. Duke Power Company shall fully implement and maintain in effect all provisions of the Commission approved physical security, guard training and qualification and safeguards contingency plans, including amendments made pursuant to the authority of 10 CFR 50.54 (p). The approved plans which contain 10 CFR 73.21 information are collectively entitled: "Catawba Nuclear Station Physical Security Plan" Revision 1 dated February 1, 1982, with additional pages dated May 17, 1982 (transmittal letter dated May 27, 1982), Revision 2 dated May 17, 1982 (transmittal letter dated May 18, 1982), Revision 3 dated July 20, 1982 (transmittal letter dated August 18, 1982), Revision 4 dated June 1, 1983 (transmittal letter dated June 20, 1983), Revision 5 dated April 13, 1984 (transmittal letter dated April 16, 1984) and Revision 5 additional pages dated June 25, 1984 (transmittal letter dated July 3, 1984); and the "Catawba Nuclear Station Safeguards Contingency Plan" dated June 29, 1981 (transmittal letter dated June 30, 1981), Revision 1 dated February 1, 1982 (transmittal letter dated February 10, 1982), Revision 2 dated January 3, 1983 (transmittal letter dated January 25, 1983), Revision 3 dated April 13, 1984 (transmittal letter dated April 16, 1984); and the "Catawba Nuclear Station Training and Qualification Plan" dated October 21, 1981, and Revision 4 dated October 25, 1983.

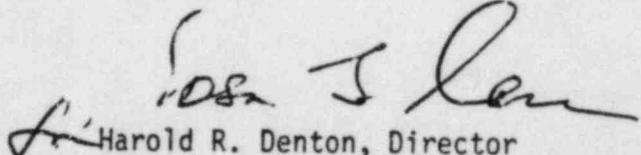
- F. Reporting to the Commission

Duke Power Company shall report any violations of the requirements contained in Section 2, Items C.(1), C.(3) through C.(23) of this license. Initial notification shall be made within twenty-four

(24) hours in accordance with the provisions of 10 CFR 50.72 with written follow-up within 30 days in accordance with the procedures described in 10 CFR 50.73 (b), (c) and (e).

- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- H. This license is effective as of the date of issuance and shall expire at midnight on December 6, 2024.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Attachment 1
- 2. Appendix A - Technical Specifications
- 3. Appendix B - Environmental Protection Plan
- 4. Appendix C - Antitrust Conditions

Date of Issuance: January 17, 1985



January 17, 1985

ATTACHMENT 1 TO LICENSE NPF-35

Prior to February 5, 1985, Duke Power Company (DPC) shall have implemented, to the satisfaction of the staff, the TDI diesel generator maintenance and surveillance program committed to in DPC letters dated July 16, October 9, and December 5, 1984, which is in accordance with the staff's SER transmitted to DPC by letter dated August 14, 1984.

January 17, 1985

APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-35

CATAWBA NUCLEAR STATION

UNITS 1 AND 2

DUKE POWER COMPANY

DOCKET NOS. 50-413, 50-414

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

~~8502070062~~

CATAWBA NUCLEAR STATION

UNITS 1 AND 2

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

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## 1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of nonradiological environmental values during operation of the nuclear facility. The principal objectives of the EPP are as follows:

- (1) Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Statement - Operating License Stage (FES-OL) and other NRC environmental impact assessments.
- (2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.
- (3) Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FES-OL which relate to water quality matters are regulated by way of the licensee's NPDES permit.

## 2.0 Environmental Protection Issues

In the FES-OL dated January, 1983, the staff considered the environmental impacts associated with the operation of the two unit Catawba Nuclear Station. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

### 2.1 Aquatic Issues

No specific aquatic issues were raised by the NRC staff in the FES-OL.

Aquatic issues are addressed by the effluent limitations, monitoring requirements contained in the effective NPDES permit issued by the South Carolina Department of Health and Environmental Control. The NRC will rely on this agency for regulation of matters involving water quality and aquatic biota.

### 2.2 Terrestrial Issues

- (1) Detection of possible changes in or damage to local flora caused by drift deposition due to the operation of the Catawba Station Cooling Towers. (FES-OL Section 5.5)
- (2) A short-term confirmatory program to quantify ambient and operational-phase noise levels and necessary mitigative measures, if any, in the

vicinity of noise assessment locations 1 and 3. (FES-OL Subsections 5.12 and 5.14.4)

NRC requirements with regard to terrestrial issues are specified in Section 4.2 of this EPP.

### 2.3 Atmospheric Issues

A comparison of the results of the preoperational fog monitoring program, with the results of the operational fog monitoring program, is needed to determine the frequency and intensity of ground fog induced by plant operation, particularly at the nearby residential community located about 1.6 km east of the station on the eastern shore of Lake Wylie and at the municipal airport located about 8 km south of the station and about 3 km south of Lake Wylie.

NRC requirements with regard to atmospheric issues are specified in Section 4.2 of this EPP.

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP\*. Changes in station design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this Section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

\* This provision does not relieve the licensee of the requirements of 10 CFR 50.59.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FES-OL, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level or (3) a matter, not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

### 3.2 Reporting Related to the NPDES Permit and State Certification

Changes to, or renewals of, the NPDES Permit or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.



The licensee shall notify the NRC of changes to the effective NPDES Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the NPDES Permit at the same time the application is submitted to the permitting agency.

### 3.3 . Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1.

#### 4.0 Environmental Conditions

##### 4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and reported to the NRC within 24 hours followed by a written report per Subsection 5.4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, fish kills, increase in nuisance organisms or conditions, and unanticipated or emergency discharge of waste water or chemical substances.

No routine monitoring programs are required to implement this condition.

##### 4.2 Environmental Monitoring

###### 4.2.1 Aerial Remote Sensing

Vegetative communities of the site and vicinity within 1 Kilometer of the cooling towers in all directions shall be aerially photographed to detect and assess the significance of damage, or lack thereof, as related to cooling tower drift dispersions. Photography shall be done by aerial overflight during September or October. Monitoring shall include a program of low altitude color infrared photography. The scale for full coverage shall be adequate to enable identification of vegetative damage over relatively small areas of terrain. Some circumstances may warrant inspection of photographs discerning individual trees. Such scale should be adequate to resolve impacted features.

Photographs taken during plant operation shall be compared with pre-operational photographs (baseline) to ascertain changes in vegetation. Photographic interpretations shall be verified by ground inspection surveys to confirm areas of stress and non-stress. This program shall require aerial photographic monitoring beginning the first September or October after Unit 1 has been in operation for one year and shall be repeated once the following year and then again in alternate years for three (3) additional periods after Unit 2 begins operation. A report shall be submitted as part of the annual report following each aerial photographic monitoring period. The report shall contain a description of the program, results and interpretative analysis of environmental impacts. Results reported shall contain information encompassing but not limited to the following: sampling date, time of day, film types, and one (1) set of resultant color transparencies encompassing an area within approximately a one Kilometer (1 Km) radius of the Unit 1 and 2 towers.

#### 4.2.2 Sound Level Surveys

Surveys shall be conducted to quantify the ambient (i.e., background) and the operational sound levels that exist at various locations around the site. The ambient sound level survey shall be conducted, to the extent practicable, during the time period when significant outdoor construction activity has ended, but prior to normal operation of the facility (preoperational phase), so that measured sound levels are not significantly affected by onsite activities associated with the power plant. The operational sound level

surveys shall be conducted as soon as practicable during the operational phase of the facility, when the cooling towers are operating with their design water flow rates. Surveys shall be conducted for both one unit normal operation and again for two unit normal operation.

For each of the surveys, sound level data shall be collected at several sites, the exact number and location to be selected by the licensee after consideration of (1) existing onsite and nearby offsite noise sources and barriers; (2) noise sensitive land uses in the site vicinity (e.g., residences, schools, churches, cemeteries, hospitals, parks); and (3) previously conducted noise surveys in the site vicinity.

Each survey shall include data collected from each sampling site during the time of year when foliage of deciduous trees is present and also from the time of year when such foliage is largely absent. Data collected from each sampling site shall encompass both the daytime and the nighttime periods. Sampling shall include the identification of pure tones, if any, emanating from plant equipment during the operational phase.

The selection, calibration and use of equipment, conduct of the surveys, and the analysis and reporting data shall conform to the provisions of the applicable American National Standards Institute Standards. The conduct of the surveys for both phases shall be similar such that the results are comparable.

The results of the surveys conducted under this program shall be summarized, interpreted and reported in accordance with Section 5.4.1 of this EPP. The results shall include, for each sampling location for each survey, the daytime and nighttime equivalent sound levels, the background and intrusion sound levels (i.e., the  $L_{90}$  and  $L_{10}$ , respectively), and the range of sound levels recorded. A description of the pure tones found, if any, and their sources shall also be included in the results.

The final report of this program shall present a brief assessment by the licensee of the environmental impact of plant operation on the offsite acoustic environment, and shall describe the proposed mitigative measures, if any, to be taken to reduce the impact of plant noise levels on the offsite environment. This report shall also contain a list of noise-related complaints or inquiries received by Duke Power Company concerning the Catawba Nuclear Station subsequent to issuance of the operating license along with a description of the action taken by Duke Power Company to resolve these complaints or inquiries.

This program shall terminate upon completion of the collection of the specified sound level data for each phase and submission of an acceptable final report.

#### 4.2.3 Fog Monitoring

Monitoring of fog at selected locations shall be conducted for the period beginning with the startup and continued operation of Unit 1 and concluding one

year after startup and continued operation of Unit 2. Visiometer and surface water temperature measurements shall be conducted at the following two locations: Location 1, about 800m north of the cooling towers; and Location 2, about 250m south of the cooling towers. These locations should coincide with the locations for visiometer measurements during the preoperational fog monitoring program conducted during the period August 10, 1977-August 9, 1979. In addition to the visiometer measurements at the locations described above, daily fog observations shall be conducted by security or other trained personnel near visiometer location 2 and by trained personnel at the Wylie Hydro Station (located about 6 km east-southeast of the nuclear power station) as during the preoperational monitoring program. Using the criteria developed for the preoperational monitoring program, when atmospheric conditions are conducive to the formation of steam fog, meteorologists or other trained personnel shall conduct qualitative observations of the horizontal and vertical extent of the fog, as well as transport of the fog off the lake. A monitoring program consisting of visio-meter measurements or qualitative observations shall be conducted at the residential community located about 1.6 km east of the nuclear power station on the eastern shore of Lake Wylie and at the municipal airport located about 8 km south of the nuclear power station and about 3 km south of Lake Wylie. At the conclusion of the monitoring period (one year after the startup and continued operation of Unit 2), a report shall be submitted as part of the Annual Environmental Operating Report (discussed in Section 5.4.1 of this EPP) containing the following information:

- a complete description of the operational fog monitoring program, noting similarities and differences between this program and the preoperational program;
- quantitative and qualitative monitoring results;
- interpretive analyses of the frequency and intensity of ground fog induced by plant operation, particularly at the nearby residential community and municipal airport described above, using comparisons of the results of the preoperational and operational monitoring programs; and
- a discussion of the need for continued monitoring and/or mitigating actions to lessen the atmospheric impact of plant operation.

## 5.0 Administrative Procedures

### 5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

### 5.2 Records Retention

Records and logs relative to the environmental aspects of station operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications to station structures, systems and components determined to potentially affect the continued protection of the environment shall be retained for the life of the station. All other records, data and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

### 5.3 Changes in Environmental Protection Plan

Requests for changes in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation



of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the EPP.

#### 5.4 Plant Reporting Requirements

##### 5.4.1 Routine Reports

An Annual Environmental Operating Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following issuance of the operating license. The period of the first report shall begin with the date of issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Subsection 4.2 of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of mitigating action.

The Annual Environmental Operating Report shall also include:

- (1) A list of EPP noncompliances and the corrective actions taken to remedy them.
- (2) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental question.
- (3) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.
- (4) A summary list of NPDES permit-related reports sent to the South Carolina Department of Health and Environmental Control during the report period which relate to matters identified in Subsection 2.1.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

#### 5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of a nonroutine event. The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact, and plant operating

characteristics, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State or local agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this subsection. The NRC shall be provided a copy of such report at the same time it is submitted to the other agency.

Appendix C

Antitrust Conditions

Pursuant to an Order by the Atomic Safety and Licensing Board, dated April 23, 1975, the Nuclear Regulatory Commission incorporates in Operating License NPF-35 the following antitrust conditions:

- a. The licensee makes the commitments contained herein, recognizing that bulk power supply arrangements between neighboring entities normally tend to serve the public interest. In addition, where there are net benefits to all participants such arrangements also serve the best interests of each of the participants. Among the benefits of such transactions are increased electric system reliability, a reduction in the cost of electric power, and minimization of the environmental effects of the production and sale of electricity.

Any particular bulk power supply transaction may afford greater benefits to one participant than to another. The benefits realized by a small system may be proportionately greater than those realized by a larger system. The relative benefits to be derived by the parties from a proposed transaction, however, should not be controlling upon a decision with respect to the desirability of participating in the transaction. Accordingly, the licensee will enter into proposed bulk power transactions of the types hereinafter described which, on balance, provide net benefits to the licensee. There are net benefits in a transaction if the licensee recovers the cost of the transaction (as defined in subparagraph (1)(d) hereof) and there is no demonstrable net detriment to the licensee arising from the transaction.

(1) As used herein:

- (a) "Bulk Power" means electric power and any attendant energy, supplied or made available at transmission or sub-transmission voltage by one electric system to another.
- (b) "Neighboring Entity" means a private or public corporation, a governmental agency or authority, a municipality, a cooperative, or a lawful association of any of the foregoing owning or operating, or proposing to own or operate, facilities for the generation and transmission of electricity which meets each of the following criteria: (1) its existing or proposed facilities are economically and technically feasible of interconnection with those of the licensee and (2) with the exception of municipalities, cooperatives, governmental agencies or

authorities, and associations, it is, or upon commencement of operations will be, a public utility and subject to regulation with respect to rates and service under the laws of North Carolina or South Carolina or under the Federal Power Act; provided, however, that as to associations, each member of such association is either a public utility as discussed in this clause (2) or a municipality, a cooperative or a governmental agency or authority.

- (c) Where the phrase "neighboring entity" is intended to include entities engaging or proposing to engage only in the distribution of electricity, this is indicated by adding the phrase "including distribution systems."
  - (d) "Cost means any appropriate operating and maintenance expenses, together with all other costs, including a reasonable return on the licensee's investment, which are reasonably allocable to a transaction. However, no value shall be included for loss of revenues due to the loss of any wholesale or retail customer as a result of any transaction hereafter described.
- (2) (a) The licensee will interconnect and coordinate reserves by means of the sale and exchange of emergency and scheduled maintenance bulk power with any neighboring entity(ies), when there are net benefits to each party, on terms that will provide for all of the licensee's properly assignable costs as may be determined by the Federal Energy Regulatory Commission and consistent with such cost assignment will allow the other party the fullest possible benefits of such coordination.
- (b) Emergency service and/or scheduled maintenance service to be provided by each party will be furnished to the fullest extent available from the supplying party and desired by the party in need. The licensee and each party will provide to the other emergency service and/or scheduled maintenance service if and when available from its own generation and, in accordance with recognized industry practice, from generation of others to the extent it can do so without impairing service to its customers, including other electric systems to whom it has firm commitments.

- (c) Each party to a reserve coordination arrangement will establish its own reserve criteria, but in no event shall the minimum installed reserve on each system be less than 15%, calculated as a percentage of estimated peak load responsibility. Either party, if it has, or has firmly planned, installed reserves in excess of the amount called for by its own reserve criterion, will offer any such excess as may in fact be available at the time for which it is sought and for such period as the selling party shall determine for purchase in accordance with reasonable industry practice by the other party to meet such other party's own reserve requirements. The parties will provide such amounts of spinning reserve as may be adequate to avoid the imposition of unreasonable demands on the other part(ies) in meeting the normal contingencies of operating its (their) system(s). However, in no circumstances shall such spinning reserve requirement exceed the installed reserve requirement.
  - (d) Interconnections will not be limited to low voltages when higher voltages are available from the licensee's installed facilities in the area where interconnection is desired and when the proposed arrangement is found to be technically and economically feasible.
  - (e) Interconnection and reserve coordination agreements will not embody provisions which impose limitations upon the use or resale of power and energy sold or exchanged pursuant to the agreement. Further, such arrangements will not prohibit the participants from entering into other interconnection and coordination arrangements, but may include appropriate provisions to assure that (i) the licensee receives adequate notice of such additional interconnection or coordination, (ii) the parties will jointly consider and agree upon such measures, if any, as are reasonably necessary to protect the reliability of the interconnected systems and to prevent undue burdens from being imposed on any system, and (iii) the licensee will be fully compensated for its costs. Reasonable industry practice as developed in the area from time to time will satisfy this provision.
- (3) The licensee currently has on file, and may hereafter file, with the Federal Energy Regulatory Commission contracts with neighboring entity(ies) providing for the sale and exchange of short-term power and energy, limited term power and energy, economy energy, non-displacement energy, and emergency capacity and energy. The licensee

will enter into contracts providing for the same or for like transactions with any neighboring entity on terms which enable the licensee to recover the full costs allocable to such transaction.

- (4) The licensee currently sells capacity and energy in bulk on a full requirements basis to several entities engaging in the distribution of electric power at retail. In addition, the licensee supplies electricity directly to ultimate users in a number of municipalities. Should any such entity(ies) or municipality(ies) desire to become a neighboring entity as defined in subparagraph (1)(b) hereof (either alone or through combination with others), the licensee will assist in facilitating the necessary transition through the sale of partial requirements firm power and energy to the extent that, except for such transition, the licensee would otherwise be supplying firm power and energy. The provision of such firm partial requirements service shall be under such rates, terms and conditions as shall be found by the Federal Energy Regulatory Commission to provide for the recovery of the licensee's cost. The licensee will sell capacity and energy in bulk on a full requirements basis to any municipality currently served by the licensee when such municipality lawfully engages in the distribution of electric power at retail.
- (5) (a) The licensee will facilitate the exchange of electric power in bulk in wholesale transactions over its transmission facilities (1) between or among two or more neighboring entities including distribution systems with which it is interconnected or may be interconnected in the future, and (2) between any such entity(ies) and any other electric system engaging in bulk power supply between whose facilities the licensee's transmission lines and other transmission lines would form a continuous electric path, provided that permission to utilize such other transmission lines has been obtained. Such transaction shall be undertaken provided that the particular transaction reasonably can be accommodated by the licensee's transmission system from a functional and technical standpoint and does not constitute the wheeling of power to a retail customer. Such transmission shall be on terms that fully compensate the licensee for its cost. Any entity(ies) requesting such transmission arrangements shall give reasonable notice of its (their) schedule and requirements.
- (b) The licensee will include in its planning and construction program sufficient transmission capacity as required for the transactions referred to in subparagraph (a) of this paragraph, provided that (1) the neighboring entity(ies)

gives the licensee sufficient advance notice as may be necessary reasonably to accommodate its (their) requirements from a functional and technical standpoint and (2) that such entity(ies) fully compensate the licensee for its cost. In carrying out this subparagraph (b), however, the licensee shall not be required to construct or add transmission facilities which (a) will be of no demonstrable present or future benefit to the licensee, or (b) which could be constructed by the requesting entity(ies) without duplicating any portion of the licensee's existing transmission lines, or (c) which would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements. Where regulatory or environmental approvals are required for the construction or addition of transmission facilities needed for the transactions referred to in subparagraph (a) of this paragraph it shall be the responsibility of the entity(ies) seeking the transaction to participate in obtaining such approvals, including sharing in the cost thereof.

- (6) To increase the possibility of achieving greater reliability and economy of electric generation and transmission facilities, the licensee will discuss load projections and system development plans with any neighboring entity(ies).
- (7) When the licensee's plans for future nuclear generating units (for which application will hereafter be made to the Nuclear Regulatory Commission) have reached the stage of serious planning, but before firm decisions have been made as to the size and desired completion date of the proposed nuclear units, the licensee will notify all neighboring entities including distribution systems with peak loads smaller than the licensee's that the licensee plans to construct such nuclear units. Neither the timing nor the information provided need be such as to jeopardize obtaining the required site at the lowest possible cost.
- (8) The foregoing commitments shall be implemented in a manner consistent with the provisions of the Federal Power Act and all other lawful local, state and Federal regulation and authority. Nothing in these commitments is intended to determine in advance the resolution of issues which are properly raised at the Federal Energy Regulatory Commission concerning such commitments, including allocation of costs or the rates to be charged. The licensee will negotiate (including the execution of a contingent statement of intent)



with respect to the foregoing commitments with any neighboring entity including distribution systems where applicable engaging in or proposing to engage in bulk power supply transactions, but the licensee shall not be required to enter into any final arrangement prior to resolution of any substantial questions as to the lawful authority of an entity to engage in the transactions.

In addition, the licensee shall not be obligated to enter into a given bulk power supply transaction if: (1) to do so would violate, or incapacitate it from performing, any existing lawful contracts it has with a third party; (2) there is contemporaneously available to it a competing or alternative arrangement which affords it greater benefits which would be mutually exclusive of such arrangement; (3) to do so would adversely affect its system operations or the reliability of power supply to its customers, or (4) if to do so would jeopardize the licensee's ability to finance or construct on reasonable terms facilities needed to meet its own anticipated system requirements.

January 17, 1985

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO FACILITY OPERATING LICENSE NPF-35

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

To be incorporated in SSER No. 5

~~450207004~~

## 5 REACTOR COOLANT SYSTEM AND CONNECTED SYSTEMS

### 5.2 Integrity of Reactor Coolant Pressure Boundary

#### 5.2.4 Reactor Coolant Pressure Boundary Inservice Inspection and Testing

By letter dated January 8, 1985, the licensee submitted Volume 1 of the Inservice Inspection Plan for the Catawba Nuclear Station to address License Condition No. 2.C.(6) in Facility Operating License NPF-31. The licensee indicated the estimated commercial operation date for Unit 1 to be May 1985. The licensee's submittal references Volume 2, "Detailed Inspection Plans for Catawba Unit 1," which is in course of preparation and will be issued at a later date.

The staff has evaluated the licensee's submittal and determined that the Inservice Inspection Program for Unit 1 is not complete and, therefore, is not sufficient to resolve License Condition No. 2.C.(6). The detailed information required to evaluate compliance with 10 CFR 50.55a(g)(4) will be contained in Volume 2. Therefore, the staff retained license condition No. 2.C.(6) with the scheduled completion date changed to May 31, 1985, as agreed upon by the licensee in his January 10, 1985, letter. The bases for this conclusion are as follows:

1. The licensee's complete Inservice Inspection Program will be available for review about the estimated commercial operation date.
2. The staff does not expect that the licensee will be required to perform inservice inspection of welds before the first refueling outage, which is estimated to occur in May 1986.
3. The staff performed a detailed review of the licensee's Preservice Inspection Program and reported the staff's conclusions in Sections 5.2.4 and 6.6 of SSER 2. When the licensee completes Volume 2 of the Inservice Inspection Program and submits this document for review, the staff expects that the majority of the welds required to be examined during the initial 10-year inspection interval will have been examined during the preservice inspection with similar or equivalent examination techniques.

Therefore, the staff finds that extending the submittal date for the Inservice Inspection Program to May 31, 1985, does not represent a significant safety issue.

## 9 AUXILIARY SYSTEMS

### 9.5.4 Emergency Diesel Engine Fuel Oil Storage and Transfer System

#### 9.5.4.2 Emergency Diesel Engine Fuel Oil Storage and Transfer System

##### 9.5.4.2(3) Internal corrosion protection for the fuel oil storage tanks

By letters dated October 2, and November 21, 1984, the licensee provided additional data and justification for not providing internal corrosion protection in the diesel generator fuel oil storage tanks.

In the November 21, 1984, letter the licensee committed to perform ultrasonic tank wall thickness measurements at the 10 year internal tank cleaning required by the plant technical specifications. By letter dated December 21, 1984, the licensee changed the above commitment to a proposed surveillance requirement to be included in the plant technical specifications (TS). The staff has reviewed the licensee's data, the justification for not providing corrosion protection and the proposed surveillance requirement together with the fuel oil system design described in the SER. The staff agrees with the licensee that internal corrosion protection will not be required at Catawba. The staff has incorporated the licensee's proposed surveillance requirement into the plant TS.

Therefore, the staff finds that the Catawba fuel oil system design is acceptable. Based on the above evaluation, license condition 18 in the SER has been removed.

#### 15.6 Anticipated Transients Without Scram

By letter dated December 31, 1984, the licensee stated that the scheduled implementation date for the component replacement program for the reactor trip breakers (Item 4.2.4) was incorrectly stated as December 31, 1984, in his November 2, 1984, response. Based on timely receipt of the new Westinghouse manual, the licensee expects implementation of the component replacement program by the end of the first scheduled refueling outage. The staff recognizes that Item 4.2.4 is a low-priority pre-implementation review item and agrees with the new implementation schedule as proposed by the licensee. The staff will condition the full power license to reflect the licensee's submittals dated November 2, and December 31, 1984.

## 17 QUALITY ASSURANCE

The Atomic Safety and Licensing Board (ASLB), in a Partial Initial Decision (PID) issued on June 22, 1984, required actions to be performed by Duke Power Company and/or staff concerning several areas at Catawba Unit 1. The staff stated in SSER 4 that: "With the exception of the modifications of procedures relative to harassment, the staff's and the licensee's actions have been complete and adequate."

By letter dated December 17, 1984, the licensee has advised the staff that a revised management procedure "Harassment of Employees," was issued on December 1, 1984. The December 17, 1984, letter stated that the revised procedure will be communicated to employees by December 21, 1984.

The staff has determined by inspection that the licensee has implemented Management Procedure No. 8901-0019, Harassment of Employees, dated December 1, 1984, and that this procedure properly addresses the ASLB concerns, including training of licensee personnel.

This issue has been satisfactorily resolved and is further detailed in Inspection Report Nos. 50-413/84-102 and 50-414/84-47.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-413CATAWBA NUCLEAR STATION, UNIT NO.1NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

Notice is hereby given that the U.S. Nuclear Regulatory Commission (the Commission or NRC), has issued Facility Operating License No. NPF-35 to Duke Power Company, North Carolina Electric Membership Corporation, and Saluda River Electric Cooperative, Inc., (the licensees) which authorizes operation of the Catawba Nuclear Station, Unit 1, at reactor core power levels not in excess of 3411 megawatts thermal in accordance with the provisions of the license, the Technical Specifications, and the Environmental Protection Plan.

On December 6, 1984, the Commission issued Facility Operating License No. NPF-31 to the licensees which authorized operation of Catawba Nuclear Station, Unit 1, to five percent of full power (170 megawatts thermal).

License No. NPF-35 supersedes NPF-31.

The Catawba Nuclear Station, Unit 1, is a pressurized water reactor located in York County, South Carolina, approximately 6 miles north of Rock Hill, South Carolina.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter 1, which are set forth in the license. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the Federal Register on June 25, 1981 (46 FR 32974). The power level authorized by this license and the conditions contained therein are encompassed by that prior notice.

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The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of relief and the issuance of exemptions included in this license will have no significant impact on the environment (49 FR 46966).

For further details with respect to this action, see (1) Facility Operating License NPF-35; (2) Facility Operating License NPF-31; (3) Facility Operating License NPF-24; (4) the Commission's Safety Evaluation Report, dated February 1983 (NUREG-0954), and Supplements 1 through 4; (5) the Final Safety Analysis Report and Amendments thereto; (6) the Environmental Report and supplements thereto; (7) the Final Environmental Statement, dated January 1983 (NUREG-0921); (8) the Partial Initial Decision of the Atomic Safety and Licensing Board, dated June 22, 1984; (9) the Supplemental Partial Initial Decision on Emergency Planning dated September 18, 1984; (10) the Partial Initial Decision Resolving Foreman Override Concerns and Authorizing Issuance of Operating Licenses dated November 27, 1984, and (11) the transcript of the public meeting on the Commission's immediate effectiveness review of the foregoing decisions.

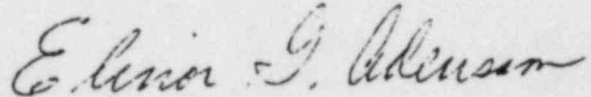
These items are available at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C. 20555, and at the York County Library, 138 East Black Street, Rock Hill, South Carolina 29730. A copy of Facility Operating License NPF-35 may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing. Copies of the Safety Evaluation Report and its Supplements (NUREG-0954) and the Final Environmental Statement (NUREG-0921) may be



purchased at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, and through the NRC GPO sales program by writing to the U.S. Nuclear Regulatory Commission, Attention: Sales Manager, Washington, D. C. 20555. GPO deposit account holders may call (301) 492-9530.

Dated at Bethesda, Maryland, this 17<sup>th</sup> day of January 1985.

FOR THE NUCLEAR REGULATORY COMMISSION



Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing



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

Docket No. 50-413

AMENDMENT TO INDEMNITY AGREEMENT NO. B-100  
AMENDMENT NO. 3

Effective January 17, 1985, Indemnity Agreement No. B-100 between Duke Power Company, North Carolina Municipal Power Agency Number 1, North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc. and the U. S. Nuclear Regulatory Commission, dated January 3, 1984, as amended, is hereby further amended as follows:

Item 3 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 3 - License number or numbers

- SNM-1920 (From 12:01 a.m., January 3, 1984 to 12 midnight July 17, 1984 inclusive)
- NPF-24 (From 12:01 a.m., July 18, 1984 to 12 midnight December 5, 1984 inclusive)
- NPF-31 (From 12:01 a.m., December 6, 1984 to 12 midnight January 16, 1985 inclusive)
- NPF-33 (From 12:01 a.m. January 17, 1985 )

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Jerome Saltzman, Assistant Director  
 State and Licensee Relations  
 Office of State Programs

Accepted \_\_\_\_\_ 1984

Accepted \_\_\_\_\_ 1984

By \_\_\_\_\_  
 DUKE POWER COMPANY

By \_\_\_\_\_  
 NORTH CAROLINA ELECTRIC  
 MEMBERSHIP CORPORATION

Accepted \_\_\_\_\_ 1984

Accepted \_\_\_\_\_ 1984

By \_\_\_\_\_  
 NORTH CAROLINA MUNICIPAL POWER  
 AGENCY NUMBER 1

By \_\_\_\_\_  
 SALUDA RIVER ELECTRIC  
 COOPERATIVE, INC.