

October 19, 1981

Dockets Nos. 50-269 50-270 and 50-287

> Mr. William O. Parker, Jr. Vice President - Steam Production Duke Power Company P. O. Box 33189 422 South Church Street Charlotte, North Carolina 28242

NO HOT REMOVE osted Amelt. 101 to DPR-47

Dear Mr. Parker:

The Commission has issued the enclosed Amendments Nos.101, 101, and 98 to Licenses Nos. DPR-38, DPR-47 and DPR-55 for the Oconee Nuclear Station, Units Nos. 1, 2 and 3. These amendments consist of changes to the Station's common Technical Specifications (TSs) in response to your request dated June 3, 1981, revised according to verbal agreements with members of your staff.

These amendments revise the TSs to incorporate operability and surveillance requirements for mechanical snubbers and upgrade these requirements for hydraulic snubbers.

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

Sincerely,

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Philip C. Wagner, Project Manager **Operating Reactors Branch #4** Division of Licensing

Enclosures:

- 1. Amendment No.101 to DPR-38
- 2. Amendment No.101 to DPR-47
- 3. Amendment No. 98 to DPR-55
- 4. Safety Evaluation
- 5. Notice

cc w/enclosures: See next page

Duke Power Company

cc w/enclosure(s):

Mr. William L. Porter Duke Power Company P. O. Box 33189 422 South Church Street Charlotte, North Carolina 28242

Oconee County Library 501 West Southbroad Street Walhalla, South Carolina 29691

Honorable James M. Phinney County Supervisor of Oconee County Walhalla, South Carolina 29621 cc w/enclosure(s) & incoming dtd.: 6/3/81

Office of Intergovernmental Relations 116 West Jones Street Raleigh, North Carolina 27603

Regional Radiation Representative EPA Region IV 345 Courtland Street, N.E. Atlanta, Georgia 30308

Mr. William Orders Senior Resident Inspector U.S. Nuclear Regulatory Commission Route 2, Box 610 Seneca, South Carolina 29678

Mr. Robert B. Borsum Babcock & Wilcox Nuclear Power Generation Division Suite 420, 7735 Old Georgetown Road Bethesda, Maryland 20014

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DUKE POWER COMPANY

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 101 License No. DPR-38

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Duke Power Company (the licensee) dated June 3, 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 3.B of Facility Operating License No. DPR-38 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.101 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications. 3. This license amendment becomes effective thirty (30) days following the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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John F. Stolz, Chief Operating Reactors Branch #4 Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: October 19, 1981



DUKE POWER COMPANY

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 101 License No. DPR-47

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Duke Power Company (the licensee) dated June 3, 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 3.B of Facility Operating License No. DPR-47 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 101 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications. 3. This license amendment becomes effective thirty (30) days following the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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John F. Stolz, Chief Operating Reactors Branch #4 Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: October 19, 1981



DUKE POWER COMPANY

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 98 License No. DPR-55

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Duke Power Company (the licensee) dated June 3, 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 3.B of Facility Operating License No. DPR-55 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 98 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications. 3. This license amendment becomes effective thirty (30) days following the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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John F. Stolz, Chief Operating Reactors Branch #4 Division of Licensing

Attachment: Changes to the Technical Specifications

Date of Issuance: October 19, 1981

ATTACHMENT TO LICENSE AMENDMENTS
AMENDMENT NO. 101 TO DPR-38
AMENDMENT NO.101 TO DPR-47
AMENDMENT NO. 98 TO DPR-55
DOCKETS NOS. 50-269, 50-270 AND 50-287

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment numbers and contain vertical lines indicating the area of change.

Remove Pages	Insert Pages
3.14-1	3.14-1
4.18-1	4.18-1
4.18-2	4.18-2
4.18-3	4.18-3
4.18-4	4.18-4
4.18-5	- -
4.18-6	-
4.18-7	-
4.18-8	-
4.18-9	-
4.18-10	-
4.18-11	-
4.18-12	-
4.18-13	-
6.5-1	6.5-1

3.14 SNUBBERS

Applicability

Applies to all modes of operation except cold shutdown and refueling shutdown.

Objective

To assure piping integrity in the event of a severe transient or seismic disturbance.

Specification

- 3.14.1 Except as permitted by 3.14.2 and 3.14.3, the reactor shall not be heated above 200°F unless all hydraulic and mechanical snubbers specified in the appropriate Station Procedure are operable.
 - 3.14.2 If a snubber is determined to be inoperable, continued operation is permitted for a period not to exceed 72 hours, unless the snubber is sooner made operable.
 - 3.14.3 If the requirements of 3.14.1 and 3.14.2 cannot be met, the reactor shall be in a cold shutdown condition within 36 hours.

Bases

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of a seismic or other event initiating dynamic loads. It is therefore required that all snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

Since the snubber protection is required only during low probability events, a period of 72 hours is allowed for repairs or replacements. In case a shutdown is required, the allowance of 36 hours to reach a cold shutdown condition will permit an orderly shutdown consistent with standard operating procedures. Since plant startup should not commence with knowingly defective safety-related equipment, Specification 3.14.1 prohibits startup with inoperable snubbers.

4.18 SNUBBERS

Applicability

Applies to hydraulic and mechanical snubbers used to protect the Reactor Coolant System and other safety-related systems.

Objective

To verify that the required hydraulic and mechanical snubbers are operable.

Specification

- 4.18.1 Each snubber associated with the Reactor Coolant System and other safety-related systems, as specified in the appropriate Station Procedure shall be visually inspected. Visual inspections shall verify:
 - (1) that there are no visible indications of damage or impaired OPERABILITY,
 - (2) attachments to the foundation or supporting structure are secure, and
 - (3) in those locations where mechanical snubber movement can be manually induced, the snubbers shall be inspected as follows:
 - (a) At each refueling, the inaccessible snubbers shall be inspected near the beginning and the end of the outage.
 - (b) In the event of a severe dynamic event, snubbers in that system which experienced the event shall be inspected during the refueling outage to assure that the snubbers have freedom of movement and are not frozen up. The inspection shall consist of verifying freedom of motion using one of the following: (i) Manually induced snubber movement, (ii) evaluation of in place snubber piston setting; (iii) stroking the mechanical snubber through its full range of travel. If one or more mechanical snubbers are found to be frozen up during this inspection, those snubbers shall be replaced (or overhauled) before returning to power. Re-inspection shall subsequently be performed according to the schedule listed below.

Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.18.4. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be tested by starting with the piston at the as found setting and extending the piston rod in the tension mode direction. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers. Snubber operability will be verified in accordance with the following schedule:

No. Inoperable Snubbers per Inspection Period	Subsequent Visual Inspection Period
0 1 2	18 months <u>+</u> 25% 12 months <u>+</u> 25% 6 months <u>+</u> 25%
2 3,4 5,6,7 <u>></u> 8	$ \begin{array}{r} b months + 25% \\ 4 months + 25% \\ 2 months + 25% \\ 1 month + 25% \\ \hline $

Note: (1) The required inspection interval shall not be lengthened more than two steps per inspection.

- (2) Snubbers may be categorized in two groups, "accessible" or "inaccessible," based on their accessibility during reactor operation. These two groups may be inspected independently according to the above schedule.
- (3) Hydraulic and mechanical snubber inspection schedules are independent.

4.18.2 The seal service life of hydraulic snubbers shall be monitored to ensure that the seals do not exceed their expected service life by more than 10% between surveillance inspections. The maximum expected service life for the various seals, seal materials, and applications shall be estimated based on engineering information, and the seals shall be replaced so that the maximum expected service life is not exceeded by more than 10% during a period when the snubber is required to be OPERABLE. The seal replacements shall be documented and the documentation shall be retained in accordance with Specification 6.5.1.m.

4.18.3 At least once per refueling outage, a representative sample, a minimum of 10% of the total of hydraulic snubbers in use in the plant, shall be functionally tested either in place or in a bench test. For each hydraulic snubber that does not meet the functional test acceptance criteria of Specification 4.18.4, an additional minimum of 10% of the hydraulic snubbers, shall be functionally tested until none are found inoperative or all have been functionally tested.

> The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of hydraulic snubbers. The representative sample shall be selected randomly from the total population of safety-related hydraulic snubbers.

In addition to the regular sample, hydraulic snubbers which failed the previous functional test shall be retested during the next test period. If a spare hydraulic snubber has been installed in place of a failed hydraulic snubber, then both the failed hydraulic snubber (if it is repaired and installed in another position) and the spare hydraulic snubber shall be retested. Test results of these hydraulic snubbers may not be included for the re-sampling, and failures shall not require additional testing of other snubbers.

If any hydraulic snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, an engineering evaluation will be performed to determine if the mode of failure could effect other snubbers of the same design. If this is determined, then reporting requirements under 10CFR Part 21 will be examined for applicability.

When a snubber is found inoperable, an engineering evaluation will be performed in accordance with appropriate Station Procedure.

4.18.4 The hydraulic snubber functional test shall verify that:

- 1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.
- 2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For hydraulic snubbers specifically required to not displace under continuous load, the ability of the hydraulic snubber to withstand load without displacement shall be verified.
- 4.18.5 The requirements of Specification 4.18.3 shall also apply to mechanical snubbers commencing with the Unit 2 refueling outage for Cycle 7 operation.

The mechanical snubber functional test shall verify that:

- 1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.
- 2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression. (Measuring the time required to travel a known distance, under load, is an acceptable method.)
- 3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

4.18-3

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and, if applicable, snubber life destructive testing was performed to qualify the snubber for the applicable design conditions. Snubbers so exempted shall be listed in a permanent record which references the exemption letter date.

Bases

4.18.6

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety related systems is maintained during and following a seismic or other event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafetyrelated systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval unless so determined, by the engineer, from a previous window of a schedule. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, and verified by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation, and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber.

To provide assurance of snubber functional reliability, a representative sample of the installed hydraulic snubbers will be functionally tested during refueling outages. Observed failures of these sample snubbers shall require functional testing of additional units.

Hydraulic snubbers and mechanical snubbers may each be treated as a different entity for the above surveillance programs.

6.5 STATION OPERATING PECORDS

Specification

- 6.5.1 The following records shall be prepared and permanently retained in a manner convenient for review:
 - a. Records of modifications to the station as described in the FSAR.
 - b. Special nuclear material physical inventory records.
 - c. Special nuclear material isotopic inventory records.
 - d. Radiation monitoring records, including records of radiation and contamination surveys.
 - e. Records of off-site environmental surveys.
 - f. Personnel radiation exposure records as required by 10CFR20.
 - g. Records of radioactive releases and waste disposal.
 - h. Records of reactor coolant system in-service inspections.
 - i. Preoperational testing records.
 - j. Records of special reactor tests or experiments.
 - k. Records of changes to safety-related operating procedures.
 - 1. Records for Environmental Qualification which are covered under the provisions of paragraph 6.7.
 - m. Records of the seal service lives of hydraulic snubbers.
- 6.5.2 The following records shall be prepared and retained for a minimum of six (6) years in a manner convenient for review:
 - a. Switchboard Record.
 - b. Reactor Operations Logbook.
 - c. Shift Supervisor Logbook.
 - d. Maintenance histories for station safety-related structures, systems and components.
 - e. Records of safety-related inspections, other than reactor coolant system in-service inspections.
 - f. Records of reportable occurrences.
 - g. Periodic testing records and records of other periodic checks, calibrations, etc. performed in accordance with surveillance requirements for safety-related parameters, structures, systems and components.



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 101 TO FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 101 TO FACILITY OPERATING LICENSE NO. DPR-47

AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. DPR-55

DUKE POWER COMPANY

OCONEE NUCLEAR STATION, UNITS NOS. 1, 2 AND 3

DOCKETS NOS. 50-269, 50-270 AND 50-287

Introduction

By letter dated November 20, 1980, the NRC informed all Power Reactor Licensees (except SEP Licensees) of the staff's revised position on inservice surveillance requirements for snubbers. Attached to that letter was guidance on the content of Technical Specifications (TSs) which the staff felt appropriate to provide assurance of the operability of snubbers (both mechanical and hydraulic) during plant operation.

Evaluation

By letter dated June 3, 1981, Duke Power Company (Duke) responded to the November 20, 1980, NRC request and applied for changes to the common Oconee Nuclear Station TSs. This application included operability requirements (Specification 3.14) and visual inspection requirements (Specification 4.18.1) for all appropriate mechanical and hydraulic snubbers. However, functional testing requirements were included for only the hydraulic snubbers (Specifications 4.18.3 and 4.18.4). In the June 3, 1981 application, Duke stated that the mechanical snubber functional testing requirements had been deleted, at the time, because there is no "feasible means available for performing this testing." Duke did, however, commit to incorporate a set of requirements into the Oconee TSs "when such means (for testing mechanical snubbers) become commercially and abundantly available."

We have reviewed Duke's position and agree that the equipment necessary to perform functional testing of mechanical snubbers is not "abundantly" available, but we feel that the equipment is available and the implementation of functional testing should not be postponed indefinitely. Duke was informed of this position, and it was agreed that the TSs which Duke had proposed to incorporate at a later date, and which we found acceptable, would be incorporated into the TSs (as Specification 4.18.5) at this time to be effective following the Oconee Unit 2 refueling outage for Cycle 7 operation. This will allow time for Duke to procure the necessary equipment while adhering to a schedule we accept.

An additional change to Duke's application related to hydraulic snubbers seal life (Specification 4.18.2) was requested by the NRC staff and agreed to by Duke. The change requires the seal service life of hydraulic snubbers to be monitored and recorded so that seals are replaced prior to the expiration of the expected serviceable lifetime.

We have reviewed the revised TSs related to both mechanical and hydraulic snubbers and find them to be in accordance with the latest NRC staff positions. Since the revised TSs will assure a higher degree of reliability for these snubbers, we conclude that the proposed changes, as revised, are acceptable.

Included in Duke's application was a request to extend implementation of these TS changes for 30 days after approval to allow time to fully implement the new procedures and train personnel concerning those new procedures. The staff finds a 30-day grace period to be acceptable and, therefore, the effective date of these amendments has been postponed for thirty days following their issuance.

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, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: October 19, 1981

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-269, 50-270 AND 50-287

DUKE POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendments Nos.101, 101, and 98 to Facility Operating Licenses Nos. DPR-38, DPR-47 and DPR-55, respectively, issued to Duke Power Company, which revised the Technical Specifications (TSs) for operation of the Oconee Nuclear Station, Units Nos. 1, 2 and 3, located in Oconee County, South Carolina. The amendments become effective thirty (30) days following the date of issuance.

These amendments revise the common TSs to incorporate operability and surveillance requirements for mechanical snubbers and upgrade these requirements for hydraulic snubbers.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forthin the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

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

the issuance of these amendments.

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For further details with respect to this action, see (1) the application for amendments dated June 3, 1981, (2) Amendments Nos. 101, 101, and 98 to Licenses Nos. DPR-38, DPR-47 and DPR-55, respectively, and (3) the Commission's related Safety Evaluation. All of 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 Oconee County Library, 501 West Southbroad Street, Walhalla, South Carolina. 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.

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Dated at Bethesda, Maryland, this 19th day of October 1981.

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FOR THE NUCLEAR REGULATORY COMMISSION

John F. Stolz, Chief Operating Reactors Branch #4 Division of Licensing