

June 1, 1988

Docket Nos.: 50-269, 50-270
and 50-287

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

Dear Mr. Tucker:

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS
(TACS 68064/68065/68066)

Re: Oconee Nuclear Station, Units 1, 2 and 3

Enclosed for your information is a "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses and Opportunity for Hearing" related to your January 22, 1988, request for amendments to the operating licenses for Oconee Nuclear Station, Units 1, 2 and 3. The proposed amendments would revise the Technical Specifications to update the LOCA - Limited Maximum Allowable Linear Heat Rate. The notice has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

Helen N. Pastis, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II

Enclosures:
Federal Register Notice

cc:
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Mr. H. B. Tucker
Duke Power Company

Oconee Nuclear Station
Units Nos. 1, 2 and 3

cc:

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

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323

Mr. Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

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

Honorable James M. Phinney
County Supervisor of Oconee County
Walhalla, South Carolina 29621

UNITED STATES NUCLEAR REGULATORY COMMISSIONDUKE POWER COMPANYDOCKET NOS. 50-269, 50-270, AND 50-287NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTSTO FACILITY OPERATING LICENSES ANDOPPORTUNITY FOR HEARING

The United States Nuclear Regulatory Commission (the Commission) is considering issuance of amendments Facility Operating Licenses Nos. DPR-38, DPR-47, and DPR-55 issued to Duke Power Company (the licensee), for operation of the Oconee Nuclear Station, Units 1, 2, and 3, located in Oconee County, South Carolina.

The amendments would revise the Technical Specifications (TS) of the operating licenses to update the LOCA - Limited Maximum Allowable Linear Heat Rate, (Figure 3.5.2-16) to reflect the B&W Owners Group Topical Report, BAW-2001P, "Low Pre-Pressure Fuel Rod Program." BAW-2001P presents the results of a series of analyses concerning low pre-pressure fuel rods. These fuel rods are the standard Mark-B design in which the pre-pressure (fill gas pressure) has been reduced. This reduction will extend burnup capabilities. The overall burnup limit would be extended by 4,000 MWD/MTU. LOCA margins were improved enough that the two-foot core elevation peak power limit can be raised from 14.0 to 14.5 KW/ft for the generic lowered loop configuration plant. BAW-2001P is currently under staff review.

Changes in the LOCA margin were evaluated by analyzing the most restrictive LOCA case. This is the peak power at the two-foot level of core elevation at beginning-of-life (BOC) conditions. This analysis performed generically for the lowered-loop configuration plants has resulted in

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an LHR of 14.0 KW/ft for the standard Mark-B design. When redone for the reduced pre-pressure design, this analysis verified that a limit of 14.5 KW/ft was achievable. Power histories used in both types of analyses were more realistic (i.e. less conservative) than those used previously for similar studies. This analysis has been reported to result in an LHR of 14.0 KW/ft with a peak cladding temperature in conformance with the acceptance criteria of 10 CFR Part 50.46.

The design change of some psi reduction in the fuel rod pre-pressure will result in a reduction to the internal pin pressure during plant operation. A two-fold effect will be realized; the reduced internal pin pressure will: (1) allow for longer burnup periods (fuel cycles), and (2) delay rupture during a LOCA. A preliminary evaluation indicated that the pin pre-pressure reduction would delay rupture by a time increment, equal to a rise in the LHR of 0.5 KW/ft. There are direct relationships between the LHR (fuel stored energy), the internal pin pressure, the cladding rupture time and the cladding temperature response. An increase in the LHR will shorten the time to rupture, thereby increasing the peak cladding temperature. A decrease in internal pin pressure lengthens the time to rupture, effectively decreasing the peak cladding temperature. Therefore, the reduced pin pressure design should allow for an increase in the LHR while maintaining acceptable cladding temperature results. The LOCA analysis, therefore, utilized a LHR of 14.5 KW/ft as compared to the 14.0 KW/ft current generic LOCA limit at the two-foot core elevation. This analysis is described in the Topical Report.

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The proposed revisions are in accordance with the licensee's application dated January 22, 1988. The licensee states that this application supplements the June 1, 1987 submittal. However, the staff considers the two applications to deal with separate issues and is reviewing them separately. The June 1, 1987 letter proposed to update Figure 3.5.2-16 to reflect NUREG-0630, "Cladding Swelling and Rupture Models for LOCA Analysis" and BAW-1915P, "Bounding Analytical Assessment of NUREG-0630 Models of LOCA KW/ft Limits With Use of FLECSET."

By _____, the licensee may file a request for a hearing with respect to issuance of the amendments to the subject facility operating licenses and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for hearing and a petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition, and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR § 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature

of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

A request for a hearing or a petition for leave to intervene shall be filed with the Secretary of the Commission, United States Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street,

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N.W., Washington, D.C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is required that the petitioner or representative for the petitioner promptly so inform the Commission by a toll-free telephone call to Western Unit at 1-800-325-6000 (in Missouri 1-800-342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to David B. Matthews, Director, Project Directorate II-3; (petitioner's name and telephone number); (date Petition was mailed); (plant name); and (publication date and page number of this FEDERAL REGISTER notice). A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to J. Michael McGarry, III, Bishop, Lieberman, Cook, Purcell and Reynolds, 1200 17th Street, N.W. Washington, D.C. 20036.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board, that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

If a request for hearing is received, the Commission's staff may issue the amendment after it completes its technical review and prior to the completion of any required hearing if it publishes a further notice for public comment of its proposed finding of no significant hazards consideration in accordance with 10 CFR 50.91 and 50.92.

For further details with respect to this action, see the application for amendment dated January 22, 1988, which is 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 South Broad Street, Walhalla, South Carolina 29691.

Dated at Rockville, Maryland, this 25th day of May 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects - I/II

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May 25, 1988

DOCKET NO.s. 50-269/270/287

MEMORANDUM FOR: Rules and Procedures Branch
Division of Rules and Records
Office of Administration

FROM: Office of Nuclear Reactor Regulation

SUBJECT: Oconee Nuclear Station, Units 1, 2, and 3 (Duke Power Company)

One signed original of the *Federal Register* Notice identified below is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies (5) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Consideration of Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
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- Exemption.
- Notice of Granting Exemption.
- Environmental Assessment.
- Notice of Preparation of Environmental Assessment.
- Other: _____

~~NOTE: Please insert a date (30 days from publication) on page 3 of notice and call M. Rood at 21487 with the date.~~

Office of Nuclear Reactor Regulation

Enclosure:
As stated

Contact: Marilee Rood
Phone: 21487

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| NAME | MRood | | | | | |
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May 25, 1988

DOCKET NO.s. 50-269/270/287

MEMORANDUM FOR: Rules and Procedures Branch
Division of Rules and Records
Office of Administration

FROM: Office of Nuclear Reactor Regulation

SUBJECT: Oconee Nuclear Station, Units 1, 2, and 3 (Duke Power Company)

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Office of Nuclear Reactor Regulation

Enclosure:
As stated

Contact: Marilee Rood
Phone: 21487

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| SURNAME ▶ | MRood | | | | | | |
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