

Docket Nos.: 50-413
and 50-414

2/11/88

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

Dear Mr. Tucker:

Enclosed for your information is a "Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing" related to your February 10, 1988, request concerning the reduction of the required reactor coolant system total flow from 396,100 gpm to 387,600 gpm for Catawba Units 1 and 2.

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

Sincerely,

Kahtan N. Jabbour, Project Manager
Project Directorate II-3
Division of Reactor Projects I/II

Enclosure: As stated

cc w/enclosure:
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Mr. H. B. Tucker
Duke Power Company

Catawba Nuclear Station

cc:

A.V. Carr, Esq.
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

J. Michael McGarry, III, Esq.
Bishop, Liberman, Cook, Purcell
and Reynolds
1200 Seventeenth Street, N.W.
Washington, D. C. 20036

North Carolina MPA-1
Suite 600
3100 Smoketree Ct.
P.O. Box 29513
Raleigh, North Carolina 27626-0513

S. S. Kilborn
Area Manager, Mid-South Area
ESSD Projects
Westinghouse Electric Corp.
MNC West Tower - Bay 239
P.O. Box 355
Pittsburgh, Pennsylvania 15230

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

Richard P. Wilson, Esq.
Assistant Attorney General
S.C. Attorney General's Office
P.O. Box 11549
Columbia, South Carolina 29211

Piedmont Municipal Power Agency
100 Memorial Drive
Greer, South Carolina 29651

Mr. Michael Hirsch
Federal Emergency Management Agency
Office of the General Counsel
Room 840
500 C Street, S.W.
Washington, D. C. 20472

Brian P. Cassidy, Regional Counsel
Federal Emergency Management Agency,
Region I
J. W. McCormach POCH
Boston, Massachusetts 02109

North Carolina Electric Membership
Corp.
3400 Summer Boulevard
P.O. Box 27306
Raleigh, North Carolina 27611

Saluda River Electric Cooperative,
Inc.
P.O. Box 929
Laurens, South Carolina 29360

Senior Resident Inspector
Route 2, Box 179N
York, South Carolina 29745

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission,
101 Marietta Street, NW, 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

Karen E. Long
Assistant Attorney General
N.C. Department of Justice
P.O. Box 629
Raleigh, North Carolina 27602

Spence Perry, Esquire
General Counsel
Federal Emergency Management Agency
Room 840
500 C Street
Washington, D. C. 20472

UNITED STATES NUCLEAR REGULATORY COMMISSIONDUKE POWER COMPANY, ET AL.DOCKET NOS. 50-413 AND 50-414NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO
FACILITY OPERATING LICENSES AND PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION AND OPPORTUNITY TO HEARING

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF-35 and NPF-52, issued to Duke Power Company, et al., (the licensee), for operation of the Catawba Nuclear Station, Units 1 and 2, located in York County, South Carolina.

The proposed amendments would revise Table 2.2-1, Technical Specification (TS) 3/4.2.3, and Figure 3.2-3, and would reduce the required Reactor Coolant System (RCS) total flow from 396,100 gpm to 387,600 gpm.

The licensee stated in its submittal, requesting the TS changes, dated February 10, 1988, that on January 13, 1988, following Catawba Unit 1 second refueling outage, a precision calorimetric test was conducted as required by TS surveillance requirement 4.2.3.5. This test resulted in the lowering of the RCS elbow tap flow coefficients which are used to convert elbow tap pressure drops to RCS flow rates. Upon insertion of the new constants into the operator aid computer, indicated RCS flow decreased to between 99.9% and 100.1% of the required flow. Because RCS flow was not consistently above 100% of the required flow, power was limited to 98% of the licensed power level of the unit in accordance with TS Figure 3.2-3. The fact that the RCS flow rate had remained constant throughout the past cycle and had returned to the same value (100.3%) following startup indicates that there is no degradation in

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actual RCS flow rate but that there is an amount of uncertainty attributable to the RCS flow measurement.

An investigation into the indicated decrease in RCS flow rate is being pursued by the licensee's and Westinghouse's personnel. One of the areas being investigated is the possibility that changes in RCS thermal streaming is causing a change in indicated hot and cold leg RTD temperatures. The precision heat balance calorimetric test is extremely sensitive to any uncertainty in this parameter.

All applicable FSAR postulated accidents and transients that have been analyzed used an assumed flow which is equal to, or conservative with respect to, the proposed TS flow of 387,600 gpm.

Certain Catawba FSAR Chapter 15 transients, those using the Improved Thermal Design Procedure (ITDP), are analyzed with a nominal flow rate of 387,600 gpm as outlined in the above submittal. The appropriate flow rate assumption for the Catawba FSAR Chapter 15 transients not using ITDP is the proposed TS minimum measured flow, 387,600 gpm, adjusted down by the flow uncertainty, 2.2%, to give 379,073 gpm. All of these transients are currently analyzed, as outlined in the above submittal, with flow rates less than this adjusted value and are therefore conservative.

The thermal hydraulic design analyses for the latest reload cores, Catawba 1 Cycle 3 and Catawba 2 Cycle 2, used the minimum measured flow of 387,600 gpm. It can be seen from this and from the preceding discussion of FSAR Chapter 15 analyses, that all applicable steady-state and transient core thermal-hydraulic analyses have been performed with flows equal to, or conservative with respect to, the proposed TS minimum measured flow.

RCS average temperature will remain unchanged with the change in minimum measured flow. This means that RCS initial fluid and metal stored energy will remain essentially unchanged. Further, a constant PCS average temperature implies that the driving temperature difference for primary-to-secondary heat transfer will remain essentially unchanged. These two parameters, initial energy content and rate of energy transfer across the steam generator tubes, are the means by which mass and energy releases influence containment response for the transients analyzed in Section 6.2.1 of the FSAR. Because the change in RCS flow is being made with a negligible change in RCS average temperature, the mass and energy releases calculated in Sections 6.2.1.3 through 6.2.1.5 of the FSAR will not be affected.

From the above discussions the licensee concluded that the revision to the TSS will not adversely impact the accident analyses documented in Sections 6.2.1 and 15 of the FSAR nor the steady-state thermal-hydraulic reload design analyses discussed in Section 4.4 of the FSAR.

Before issuance of the proposed license amendments, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the request for amendment involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The licensee's submittal dated February 10, 1988, concluded that the requested TS changes do not involve a significant hazards consideration for the reasons set forth below.

(1) The proposed amendments would not involve a significant increase in the probability or consequences of any previously evaluated accident because all applicable accidents have already been revised using the RCS flow which is being proposed. The results of the analyses using the new flow assumptions have been found to be acceptable. Therefore, the current analyses will not be affected by this proposed change.

(2) The proposed amendments would not create the possibility of a new or different kind of accident from any accident previously evaluated because the lower flow rate was accounted for in all applicable accident analyses. The results of the analyses using the new flow assumptions were found to be acceptable. No new modes of operation that have not been analyzed will be introduced.

(3) The proposed amendments would not involve a significant reduction in a margin of safety because all applicable safety analyses were performed using the proposed flow rate or a flow rate which is conservative with respect to the proposed flow rate. All accident analyses results remain within acceptable limits and therefore the proposed change will not significantly impact the margin of safety.

Based on its review, the Commission agrees with the licensee's conclusion.

Accordingly, based on the reasons and conclusions given above, the Commission proposes to determine that the requested TS changes do not involve a significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Rules and Procedures Branch, Division of Rules and Records, Office of Administration, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, and should cite the publication date and page number of the FEDERAL REGISTER notice. Written comments may also be delivered to Room 4000, Maryland National Bank Building, 7735 Old Georgetown Road, Bethesda, Maryland from 8:15 a.m. to 5:00 p.m. Copies of written comments received may be examined at the NRC Public Document Room, 1717 H Street, N.W., Washington, D. C. The filing of requests for hearing and petitions for leave to intervene are discussed below.

By March 18, 1988 , 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 petition for leave to intervene. Request for a hearing and petitions for leave to interview 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 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 amendments 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.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the request for amendments involves no significant hazards consideration, the Commission may issue the amendments and make them effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendments.

If a final determination is that the amendments involve a significant hazards consideration, any hearing held would take place before the issuance of any amendments.

Normally, the Commission will not issue the amendments until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendments before the expiration of the 30-day notice period, provided that its final determination is that the amendments involve no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U. S. 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, 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 requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Jon B. Hopkins: (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-White Flint, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, and to Mr. Albert Carr, Duke Power Company, 422 South Church Street, Charlotte, North Carolina, 28242, attorney for the licensee.

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 Atomic Safety and Licensing Board designated to rule on the petition and/or request, that the petitioner has made a substantial showing of good cause for the granting of a late petition and/or request. That determination will be based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendments dated February 10, 1988 which is available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C., and the York County Library, 138 East Black Street, Rock Hill, South Carolina 29730.

Dated at Rockville, Maryland on this 11th day of February , 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

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Jon B. Hopkins, Acting Director
Project Directorate II-3
Division of Reactor Projects I/II
Office of Nuclear Reactor Regulation

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