

July 19 , 1993

Docket Nos. 50-369  
and 50-370

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Mr. T. C. McMeekin  
Vice President, McGuire Site  
Duke Power Company  
12700 Hagers Ferry Road  
Huntersville, North Carolina 28078-8985

Dear Mr. McMeekin:

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS - MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 (TAC NOS. **M86969 AND M86970**)

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing." This notice relates to your application for amendments dated July 13, 1993, which would revise the boron concentration limits within the refueling Water Storage Tank and within the Cold Leg Accumulators in order to support the safe operation of McGuire Unit 2 Cycle 9 and subsequent cycles.

Sincerely,

/s/

Victor Nerses, Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Notice

cc w/enclosure:  
See next page

OFFICE	PDII-3/LA	PDII-3/PM	PDII-3/D		
NAME	L. BERRY	V. NERSES	D. MATTHEWS		
DATE	7/16/93	7/16/93	7/19/93		

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 19, 1993

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Mr. T. C. McMeekin  
Vice President, McGuire Site  
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Sincerely,

A handwritten signature in cursive script, appearing to read "Victor Nerses".

Victor Nerses, Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Notice

cc w/enclosure:  
See next page

Mr. T. C. McMeekin  
Duke Power Company

McGuire Nuclear Station

cc:

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Charlotte, North Carolina 28232

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Mecklenberg County  
Department of Environmental  
Protection  
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Charlotte, North Carolina 28202

UNITED STATES NUCLEAR REGULATORY COMMISSIONDUKE POWER COMPANYDOCKET NOS. 50-369 AND 50-370NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO  
FACILITY OPERATING LICENSES, PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF-9 and NPF-17 issued to Duke Power Company for operation of the McGuire Nuclear Station, Units 1 and 2, located in Mecklenburg County, North Carolina.

The proposed amendments would revise the boron concentration limits within the refueling Water Storage Tank and within the Cold Leg Accumulators in order to support the safe operation of McGuire Unit 2 Cycle 9 and subsequent cycles.

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 amendment request 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 has listed the amendment changes into three categories. The first category identifies changes to the TS numbering scheme and adds a designation to the top and bottom of each TS

page that is only applicable to Unit 1 or Unit 2. The second category relates to changes to the Cold Leg Accumulator (CLA) and the Refueling Water Storage Tank (RWST) boron concentration limits. The changes are: an increase in the maximum boron concentration limit for the Unit 1 CLA; an increase in the maximum and the minimum boron concentration limits for Unit 2 CLA; an increase in the minimum boron concentration limit for the Unit 2 RWST while in modes 5 and 6; an increase in the maximum boron concentration limit for the Unit 1 RWST while in modes 1 through 4; and an increase in the maximum and minimum boron concentration limits for Unit 2 RWST while in modes 1 through 4. The third category proposes changes to the boron concentration limits during refueling operations which are as follows: an increase in the minimum boron concentration limit for the Unit 2 refueling canal; and an increase in the minimum boron concentration limit for Unit 2 spent fuel pool water. The Bases pages are also revised to reflect the above changes. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

(Amendment would not) involve a significant increase in the probability or consequences of an accident previously evaluated.

CATEGORY 1:

The changes within this category are administrative in nature and only involve how the TS are structured. These particular changes are not considered to be initiators of any previously evaluated accident. As such, the probability of accidents previously evaluated would not change as a result of the proposed changes within this category. The proposed changes do not contribute in any way to the outcome of an accident that has been previously evaluated, nor do they play a role in the mitigation of any previously evaluated accident because the changes associated with this category only concern how the TSs are structured. Accordingly, the consequences of previously evaluated accidents is not altered by the proposed changes from this category.

CATEGORY 2:

The proposed amendments provided by this category primarily involve changes to the boron concentration limits for the RWST and the CLA for a particular unit. The changes to the boron concentration limits of the

RWST and the CLA are necessary to support the safe operation of McGuire Unit 2 Cycle 9. The minimum boron concentration limits ensure the reactor will remain subcritical during a LOCA [loss of coolant accident] and the limits are determined by the NRC approved methodology described in the Duke Power Topical Report DPC-NF-2010A.

For modes 5 and 6, the minimum RWST boron concentration limits ensure that negative reactivity control is available when the plant is [in] a cold shutdown condition. The requirements are based on ensuring that a 1% delta K/k shutdown margin is maintained at all times during the cycle. The required boron concentration limits are determined by the NRC approved methodology discussed in DPC-NF-2010A.

The maximum RWST and CLA boron concentration limits are necessary to provide adequate operating margin, given the increase in the minimum boron concentration limits. In addition, the maximum boron concentration limits ensure that boron precipitation is precluded following a LOCA. The methods and assumptions utilized to perform the boron precipitation analysis is described in a Westinghouse letter CLC-NS-309 dated April 1, 1975 and is consistent with previous reload submittal approved by the NRC for McGuire.

The revision to the minimum allowable value for post-LOCA containment sump pH is necessary due to the proposed increases in the RWST and CLA boron concentration limits. The higher boric acid content could result in a post-LOCA mixed containment sump pH of less than 8.5. As a result the pH band specified within the Bases of the McGuire Tss is revised to be greater than or equal to 7.5 and less than or equal to 10.5 and is consistent with the NRC criteria for sump pH after a LOCA, contained in Branch Technical Position MTEB 6-1.

In summary, all proposed changes associated with this category are a result of analysis that have been performed by analytical methods and techniques that have been accepted by the NRC and whose results are clearly within all NRC acceptance criteria. Accordingly, the proposed changes associated with this category do not significantly increase the probability or consequences of any previously evaluated accidents.

#### CATEGORY 3:

The proposed changes provided by this category primarily involve changes to the boron concentration limits in the Unit 2 refueling canal and the Unit 2 spent fuel pool water. These changes are intended to be consistent with the proposed change to the RWST minimum boron concentration limit. During refueling, the water in the refueling canal and the spent fuel pool can be mixed during fuel transfer. Raising the refueling canal and spent fuel pool minimum boron concentration limits to the RWST minimum boron concentration requirement will prevent the RWST boron concentration from getting out of specification upon post refueling refill. As such, the proposed change would provide additional shutdown margin during refueling operations. Further, the minimum boron concentration limit in these two areas are not considered to be initiators of any accidents that have been previously analyzed.

Therefore, the proposed changes from this category will not increase the probability of a previously evaluated accident or increase the consequences of the accident.

(Amendment would not) create the possibility of a new or different kind of accident from any kind of accident previously evaluated.

CATEGORY 1:

As discussed above, the changes associated with this category are administrative in nature and only affect how the TSs are structured. Systems, structures or components at McGuire are not affected or changed in any way. Procedures and how the plant is operated and maintained will not be changed. Accordingly, a new or different kind of accident from any accident previously evaluated would not be created.

CATEGORY 2:

The proposed changes associated with this category are a result of analysis that have been performed by analytical methods and techniques that have been reviewed and approved by the NRC and the results [from] the analysis are clearly within all NRC acceptance criteria. The changes proposed ensure the safe operation of McGuire 2 Cycle 9 during normal operational situations as well as in response to design base events. The changes also ensure that stress corrosion cracking will not occur for an extended period following a LOCA and iodine retention in the containment sump water is not adversely impacted. Accordingly, the proposed changes of this category will not result in a new or different kind of accident.

CATEGORY 3:

The proposed changes of this category provide additional shutdown margin beyond what [normally] would be required during refueling operations. The increase in the minimum boron concentration within the refueling canal and the spent fuel pool does not result in any additional operational concerns nor adversely impact any systems, structures or components at McGuire. Accordingly, the proposed changes associated with this category will not create any new or different kinds of accidents than those that have been previously evaluated.

([A]mendment would not) involve a significant reduction in a margin of safety.

CATEGORY 1:

The changes associated with this category only affect how the TSs will be structured and are considered to be administrative in nature. No margin of safety are affected in any way by the proposed changes associated with this category. Accordingly, the proposed changes do not involve a reduction in a margin of safety.

CATEGORY 2:

The analytical methods and techniques utilized to determine the proposed changes associated with this category have been reviewed and approved by the NRC. The results of the analyses that were performed confirm that

the proposed changes are well within all NRC acceptance criteria. The proposed TS changes ensure that McGuire 2 Cycle 9 will operate safely and that the consequences of design base events for all modes of operation are within NRC approved acceptance criteria for McGuire. Accordingly, the proposed changes associated with this category will not involve a significant reduction in a margin of safety.

CATEGORY 3:

The proposed changes associated with this category provide an additional shutdown margin beyond what would normally be required. As such, a margin of safety would be enhanced by the changes of this category. Accordingly, there would be no reduction in a margin of safety as a result of the proposed changes associated with this category.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no 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.

Normally, the Commission will not issue the amendment 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 amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER 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.



Written comments may be submitted by mail to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By **August 23, 1993**, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license 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 a hearing and a petition for leave to intervene. Requests for a hearing and a petition 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. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at the Atkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina 28223. 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 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 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. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide

references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. 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 amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

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

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, DC 20555, Attention: Docketing and Services Branch,

or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555, by the above date. Where petitions are filed during the last 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 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to David B. Matthews: 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, DC 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 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).

For further details with respect to this action, see the application for amendment dated July 13, 1993, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at the Atkins Library, University of North Carolina, Charlotte (UNCC Station), North Carolina 28223.

Dated at Rockville, Maryland, this **19th** day of **July 1993**.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "D B Matthews". The signature is written in a cursive, somewhat stylized font.

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