

October 17, 1997

Mr. H. B. Barron  
Vice President, McGuire Site  
Duke Energy Corporation  
12700 Hagers Ferry Road  
Huntersville, North Carolina 28078

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SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS -  
MCGUIRE NUCLEAR STATION, UNITS 1 AND 2 (TAC NOS. M97319 AND  
M97320)

Dear Mr. Barron:

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 amendment application dated October 13, 1997, which would revise Technical Specification Table 3.3-4, "Engineered Safety Features [ESF] Actuation System Instrument Trip Setpoints." Specifically, the amendment would support the replacement of the three safety-related wide range level instruments. The ESF trip setpoint for the refueling water automatic switchover to recirculation would be revised to account for the difference in instrument uncertainty associated with wide range level instruments and provide additional operator response time margin.

Sincerely,  
ORIGINAL SIGNED BY:  
Victor Nerses, Senior Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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Docket Nos. 50-369 and 50-370

Enclosure: Notice

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cc w/encl: See next page

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

October 17, 1997

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Vice President, McGuire Site  
Duke Energy Corporation  
12700 Hagers Ferry Road  
Huntersville, North Carolina 28078

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Sincerely,

A handwritten signature in cursive script that reads "Victor Nerses".

Victor Nerses, Senior Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosure: Notice

cc w/encl: See next page

**McGuire Nuclear Station**

**cc:**

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DUKE ENERGY CORPORATION

DOCKET NOS. 50-369 AND 50-370

NOTICE 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 Energy Corporation (the licensee) for operation of the McGuire Nuclear Station, Units 1 and 2, located in Mecklenburg County, North Carolina.

The proposed amendments would revise Technical Specification Table 3.3-4, "Engineered Safety Features [ESF] Actuation System Instrument Trip Setpoints." Specifically, the amendments would support the replacement of the three safety-related wide range level instruments. The ESF trip setpoint for the refueling water automatic switchover to recirculation would be revised to account for the difference in instrument uncertainty associated with wide range level instruments and provide additional operator response time margin.

Before issuance of the proposed license amendment, 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. 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:

#### First Standard

Operation of the facility in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

#### Probability

The FWST [Refueling Water Storage Tank] and its associated instrumentation are not considered accident initiators. The instrumentation change is from a narrow range type instrument to a wide range type instrument. A failure of either type of instrument could result in an undesired switchover or failure to switchover. However, the failure could not initiate any subsequent accident sequences.

#### Consequences

With the switchover to recirculation setpoint change, the system design will still provide enough injected water to ensure that the reactor remains shutdown, as well as provide sufficient water depth within the containment sump to ensure adequate net positive suction head (NPSH) for the ECCS [emergency core cooling system] pumps and protect against vortexing. Also, adequate time is provided to ensure the completion of all operator actions necessary for switchover to cold leg recirculation prior to the loss of all usable FWST inventory and loss of suction to the ECCS pumps.

The change in the FWST LOW level setpoint reduces the FWST volume that is delivered to the primary system in the injection phase of a LOCA [loss-of-coolant

accident]. Thus, this volume reduction affects the containment pressure response during a LOCA. A reanalysis of the containment pressure response using the NRC-approved methodology of DPC-NE-3004 demonstrates that the peak containment pressure remains below the design limit for the proposed FWST LOW level setpoint.

The LOCA blowdown, refill, and reflood phases of the analysis are not affected by the change in switchover setpoint. Therefore, the fuel clad integrity will not be impacted as a result of this change. The containment response was analyzed and found to be within acceptable limits. Therefore, the fission product barriers are unaffected by this change in setpoint.

The radiological calculations include assumptions regarding the start of ECCS recirculation which could be impacted by this change. The impact of the setpoint changes is to shorten the time that is assumed for ECCS recirculation to begin. This would tend to increase the calculated dose from this potential leak path but the impact is so small that the currently reported results remained unchanged (calculation results are the same within roundoff, such that reported results do not change). The change does not significantly impact the radiological consequences of the design basis LOCA.

An analysis was performed at the FWST reduced borated water volume delivered to the primary system during a LOCA. The resulting primary system boron concentrations were compared to boron concentrations required to keep the core subcritical and found to be acceptable.

Therefore, there is no increase in the probability or consequences of an accident previously evaluated.

#### Second Standard

The amendment would not create the possibility of a new or different kind of accident from any kind of accident previously evaluated.

The failure modes of the new level transmitters remain the same. The instrumentation interacts with the same equipment and provides the same function. Therefore, failure of the new instrumentation [cannot] produce a new or different kind of accident previously evaluated. However, some failure modes will be more readily detectable because of the change to wide range instrumentation.

#### Third Standard

The amendment would not involve a significant reduction in a margin of safety.

The change to the FWST instrumentation does not involve a reduction in the margin of safety. Although increased instrument uncertainty is being introduced, the FWST low level setpoint is being adjusted to compensate for this change. The overall analysis results continue to be bounded such that there is no loss of suction from the FWST prior

to ECCS pump switchover to the containment sump. There is adequate FWST inventory injected to maintain the reactor shutdown. There is sufficient water depth within the containment sump to satisfy NPSH and vortex concerns. In addition, the peak containment pressure remains below the design limit for the proposed FWST LOW level setpoint.

The rate of injection and back pressure of the FWST is not affected by the setpoint change. Analysis shows that the peak cladding temperature occurs prior to ECCS pump switchover to the containment sump, and thus is unaffected by this change.

Therefore, the new instrumentation and revised setpoints do not cause a reduction in the margin of safety associated with containment pressure or fuel cladding integrity.

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 Chief, Rules and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D22, Two White Flint North, 11545 Rockville Pike, Rockville, 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.

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

By November 21, 1997, 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, and at the local public document room located at the J. Murrey Atkins Library, University of North Carolina at Charlotte, 9201 University City Boulevard, North Carolina. 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

20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to Mr. Albert Carr, Duke Energy Corporation, 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 October 13, 1997, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the J. Murrey Atkins Library, University of North Carolina at Charlotte, 9201 University City Boulevard, North Carolina.

Dated at Rockville, Maryland, this 17<sup>th</sup> day of October 1997.

FOR THE NUCLEAR REGULATORY COMMISSION



Victor Nerses, Senior Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation