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**DUKE POWER**

February 4, 1997

U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Document Control Desk

Subject: Oconee Nuclear Station  
Docket Numbers 50-269, -270, and -287  
McGuire Nuclear Station  
Docket Numbers 50-369 and -370  
Catawba Nuclear Station  
Docket Numbers 50-413 and -414  
Request for Exemption From the Requirements of 10  
CFR 70.24

Pursuant to 10 CFR 70.14(a) and 70.24(d), Duke Power Company requests an exemption to the requirements of 10 CFR 70.24, regarding criticality accident monitoring. These requirements are considered to be unnecessary, because fuel storage rack design and Technical Specification requirements are sufficient to preclude criticality. This exemption is requested for each of Duke's three nuclear stations.

Justification for this exemption request is contained in the Attachment. If there are any questions regarding this request, please call Scott Gewehr at (704) 382-7581.

Very truly yours,

*M. S. Tuckman*

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Justification for Exemption from the Requirements of 10 CFR  
70.24, Criticality Accident Requirements

Requirements and Basis for Exemption

10 CFR 70.24 establishes requirements for licensees to maintain in each area where special nuclear material is handled, used, or stored, a criticality monitoring system and emergency procedures, and document retention of current or superseded procedures.

Paragraphs 70.14(a) and 70.24(d) anticipate that relief from these requirements is appropriate in some circumstances. A showing of good cause and the determination that relief will not endanger life, property, or the common defense, and is otherwise in the public interest, may entitle a licensee to such relief. For the reasons given below, Duke Power feels that compliance with the requirements of 70.24 is unnecessary, and hereby requests an exemption for Catawba, McGuire and Oconee Nuclear Stations.

Previous Exemptions

Prior to the issuance of Facility Operating Licenses (FOLs) for Catawba and McGuire, each unit received special nuclear material (SNM) under licenses SNM-1920 (Catawba Unit 1), SNM-1949 (Catawba Unit 2), SNM-1773 (McGuire Unit 1) and SNM-1885 (McGuire Unit 2). (The requirements regarding criticality monitoring contained in Section 70.24 came into being after Oconee began commercial operation.) The SNM licenses contained explicit exemptions to the requirements of 10 CFR 70.24. These exemptions were based on analyses performed by Duke and the NRC staff, which concluded that "reasonable and satisfactory precautions" existed to preclude a nuclear criticality accident. (Reference: NRC safety evaluation for revision to SNM-1920, dated January 16, 1984.) These SNM licenses were terminated upon receipt of the respective units' FOLs; the exemptions were not transferred to the FOLs. The administrative and Technical Specification controls on the storage of nuclear fuel remain in effect and continue to provide "reasonable and satisfactory precautions" against a criticality accident. The previous acceptability of this exemption in the SNM licenses forms the basis of this request to include this exemption in the FOLs at McGuire and Catawba; and, by logical extension, Oconee.

### Applicability to Oconee Nuclear Station

Levels of administrative and Technical Specification controls on the storage of nuclear fuel at Oconee Nuclear Station are comparable to those in place at McGuire and Catawba; the "reasonable and satisfactory precautions" to avoid a criticality accident. These controls include, for example, compliance with the stations' Technical Specifications, the geometric spacing of fuel assemblies in the fuel storage areas, burnup/enrichment restrictions which govern spent fuel placement in the spent fuel pool and administrative controls and procedures which are imposed upon fuel handling operations. These requirements are common to all three of Duke's nuclear stations. Therefore, the same logic which indicates that an exemption is appropriate for McGuire and Catawba would also apply to Oconee.

### Criteria to Justify an Exemption

The pertinent part of 10 CFR 70.14(a) provides that the Commission may "grant such exemptions from the requirements of the regulations in this part as it determines are **authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.**" That such an exemption is **authorized by law** is made clear by Paragraph 70.24(d), which specifically acknowledges the option to pursue an exemption "in whole or in part from the requirements of" Section 70.24. It has already been determined by the NRC Staff that the exemption **will not endanger life or property**, as evidenced by the previous granting of the exemption in previous SNM licenses for McGuire and Catawba. Nothing has occurred at the stations which has diminished the "reasonable and satisfactory precautions" which have been demonstrated to be in place to prevent a nuclear criticality accident. Similarly, the controls in place at Oconee are comparable to those at McGuire and Catawba, and provide a consistent degree of confidence that a criticality accident will not occur. The **common defense and security** would not be endangered, because the exemption could not result in an increase in the likelihood of the loss or diversion of SNM; the requirements from which an exemption is requested herein are not intended to detect or prevent such a loss or diversion. Finally, the **public interest** is served in this case by the avoidance of expenditures of resources to meet a requirement which is clearly unnecessary and inappropriate.