

March 23, 1999

Mr. Oliver D. Kingsley, President
Nuclear Generation Group
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1 AND 2 (TAC NOS. MA5020, MA5021, MA5022 AND MA5023)

Dear Mr. Kingsley:

The Commission has forwarded the enclosed "Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination and Opportunity for a Hearing" to the Office of the Federal Register for publication.

This notice relates to your March 22, 1999, submittal to modify the technical specifications to allow the use of the Gamma-Metrics Post Accident Neutron Monitors to provide neutron flux information during Operational Mode 6.

Sincerely,

ORIG. SIGNED BY
John B. Hickman, Project Manager
Project Directorate III-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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PDR ADOCK 05000454
P PDR

Docket Nos. STN 50-454, STN 50-455,
STN 50-456, STN 50-457

Enclosure: Notice

cc w/encl: See next page

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Docket File	PUBLIC	PDIII-2 r/f	J. Zwolinski/S. Black
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DATE	3/23/99	3/23/99		3/23/99				

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

March 23, 1999

Mr. Oliver D. Kingsley, President
Nuclear Generation Group
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION, UNITS 1
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Sincerely,

A handwritten signature in black ink, appearing to read "John B. Hickman".

John B. Hickman, Project Manager
Project Directorate III-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,
STN 50-456, STN 50-457

Enclosure: Notice

cc w/encl: See next page

O. Kingsley
Commonwealth Edison Company

cc:

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O. Kingsley
Commonwealth Edison Company

- 2 -

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Mr. R. M. Krich
Vice President - Regulatory Services
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Downers Grove, Illinois 60515

UNITED STATES NUCLEAR REGULATORY COMMISSIONCOMMONWEALTH EDISON COMPANYDOCKET NOS. STN 50-454, STN 50-455, STN 50-456 AND STN 50-457NOTICE 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-37, NPF-66, NPF-72, and NPF-77 issued to Commonwealth Edison Company (ComEd, the licensee) for operation of the Byron Station, Unit Nos. 1 and 2, located in Ogle County, Illinois, and Braidwood Station, Unit Nos. 1 and 2, located in Will County, Illinois.

The proposed amendments would allow the use of the Gamma-Metrics Post Accident Neutron Monitors (PANMs) to provide neutron flux information during Operational Mode 6 (refueling).

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 amendments requested involve 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 amendments 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:

Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

The installed Westinghouse source range neutron flux monitors are boron trifluoride detectors operating in the proportional region of the gas filled detector characteristic curve. The detectors monitor the neutron flux in counts per second. The instrument range covers six decades (i.e., 1 to 1E06 counts per second (cps)). The installed source range Gamma-Metrics post accident neutron flux monitors (PANMs) are enriched U-235 fission chambers operating in the ion chamber region of the detector characteristic curve. The detectors monitor the neutron flux in counts per second. The instrument range covers six decades (i.e., 0.1 to 1E05 cps). The detectors provide continuous visual indication in the Main Control Room (MCR.) Both the Westinghouse and Gamma-Metrics PANM neutron detectors are designed in accordance with 10CFR50 Appendix A, General Design Criterion (GDC) 13, "Instrumentation and control," and GDC 29, "Protection against anticipated operational occurrences," and are functionally equivalent for this application.

The Technical Specifications Bases state that two operable source range neutron flux monitors are required to provide a signal to alert the operator to unexpected changes in core reactivity such as with a boron dilution accident or an improperly loaded fuel assembly. The use of source range neutron flux monitors, either Gamma-Metrics PANMs or Westinghouse, has no effect on the probability of a dilution accident or an improperly loaded fuel assembly, because the source range neutron flux monitors are not in any way the initiators of or precursor to either accident.

The use of source range neutron flux monitors, either Gamma-Metrics PANMs or Westinghouse, has no effect on the consequences of a dilution accident or an improperly loaded fuel assembly. The need for a safety analysis for an uncontrolled boron dilution accident is eliminated by isolating all unborated water sources as required by LCO 3.9.2, "Unborated Water Source Isolation Valves." Thus boron dilution is not considered a credible accident during refueling.

UFSAR Section 15.4.7 does not credit the source range neutron flux monitors for prevention or detection of the improperly loaded fuel assembly. It instead credits administrative procedures (i.e., nuclear component transfer lists, core inventory verification, etc.) implemented during fuel loading. If a fuel assembly loading error occurred, it would be detected by a flux map, or the perturbations of the power distribution will be sufficiently small to be within the allowable uncertainties.

Therefore this proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change to Technical Specification 3.9.3 does not involve any physical alteration of plant systems, structures, or components, or changes in parameters governing plant operation. This change will not result in a significant reduction in monitoring capability since both the Westinghouse and Gamma-Metrics PANM source range neutron flux monitors are functionally equivalent and both are Safety Category I (Class 1E) systems. These source range instrumentation systems are for monitoring neutron flux and criticality assessment. They are not relied upon to initiate automatic accident mitigation in Operational Mode 6. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

Does the proposed change involve a significant reduction in a margin of safety?

The proposed change will still maintain the requirement for two source range neutron flux monitors for visual monitoring of core reactivity as currently discussed in the Bases for the affected Technical Specifications. The Gamma-Metrics PANMs use fission chambers as detectors that have a sensitivity of 4 cps/neutron-volt (cps/nv) for thermal neutrons and 2 cps/nv for fast neutrons. The Westinghouse source range neutron flux monitors have a sensitivity of 13 cps/nv. The Gamma-Metrics PANMs have a comparable range and accuracy (i.e., range of 0.1 to 1E05 cps with an accuracy of 2% of full scale) to that of the Westinghouse source range neutron flux monitors (i.e., 1 to 1E+6 cps with an accuracy of 3 percent of full scale). The fact that the Gamma-Metrics PANMs do not cover the range of 1E05 to 1E06 cps is insignificant in Operational Mode 6 due to the low count rates expected. Therefore, these changes do not involve a significant reduction in the margin of safety.

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 amendments requested involve 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 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 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 Administrative 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 6D59, 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 April 28, 1999, 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 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 Byron Public Library District, 109 N. Franklin, P.O. Box 434, Byron, Illinois 61010 (for Byron) and the Wilmington Public Library, 201 S. Kankakee Street, Wilmington, Illinois 60481 (for Braidwood). 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 amendments 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 amendments requested involve no significant hazards consideration, the Commission may issue the amendments and make them

immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendments.

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

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 Ms. Pamela B. Stroebel, Senior Vice President and General Counsel, Commonwealth Edison Company, P.O. Box 767, Chicago, Illinois 60690-0767, 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 amendments dated March 22, 1999, 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 Byron Public Library District, 109 N. Franklin, P.O. Box 434, Byron, Illinois 61010 (for Byron) and the Wilmington Public Library, 201 S. Kankakee Street, Wilmington, Illinois 60481 (for Braidwood).

Dated at Rockville, Maryland, this 23rd day of March 1999.

FOR THE NUCLEAR REGULATORY COMMISSION



John B. Hickman, Project Manager
Project Directorate III-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation