

March 13, 1997

Ms. Irene Johnson, Acting Manager
Nuclear Regulatory Services
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: ENVIRONMENTAL ASSESSMENT; BYRON AND BRAIDWOOD STATIONS - (TAC NOS. M97235, M97236, M97237 AND M97238)

Dear Ms. Johnson:

Enclosed is a copy of an Environmental Assessment and Finding of No Significant Impact related to Commonwealth Edison Company's (ComEd) application for amendments dated November 5, 1996, for Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2. The proposed amendments would amend the technical specifications to permit ComEd to take credit, on a temporary basis, for soluble boron in the spent fuel storage pool water in maintaining an acceptable margin of subcriticality.

This assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by:

George F. Dick, Jr., Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

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

Enclosure: Notice

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UNITED STATES NUCLEAR REGULATORY COMMISSIONCOMMONWEALTH EDISON COMPANYDOCKET NOS. STN 50-454, STN 50-455, STN 50-456 AND 50-457BYRON STATION, UNITS 1 AND 2BRAIDWOOD STATION, UNITS 1 AND 2ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment 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 Byron Station, Units 1 and 2, located in Ogle County, Illinois and Braidwood Station, Units 1 and 2, located in Will County, Illinois.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The proposed action would revise the technical specifications (TS) to take credit for soluble boron in the spent fuel pool in maintaining an acceptable margin of subcriticality. The proposed change would remain in effect until December 31, 1997, at which time the licensee is expected to implement long-term corrective actions.

The Need for the Proposed Action:

The proposed action is required in order for the licensee to be in compliance with its TS. Heretofore, the compliance with the requirement to maintain criticality (k_{eff}) in the spent fuel pool to less than 0.95 with unborated water was accomplished through the use of Boraflex, a neutron absorber. However, recent tests have indicated that the Boraflex is showing

degradation induced by gamma radiation. Maintaining boron concentration of 2000 parts per million in the spent fuel pool is more than sufficient to ensure that the k_{eff} is maintained below 0.95.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed action and concludes that the licensee's proposal to take credit for soluble boron in the spent fuel pool water to maintain k_{eff} less than or equal to 0.95 is acceptable.

The change will not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure. Accordingly, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological impacts, the proposed action involves features located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Accordingly, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

Since the Commission has concluded there is no measurable environmental impact associated with the proposed action, any alternatives with equal or greater environmental impact need not be evaluated. As an alternative to the proposed action, the staff considered denial of the proposed action. Denial

of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2.

Agencies and Persons Consulted:

In accordance with its stated policy, on February 11, 1997, the staff consulted with Frank Niziolek of the Illinois Department of Nuclear Safety, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

Based upon the environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated November 5, 1996, 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 rooms located at: for Byron, the Byron Public Library District, 109 N. Franklin, P. O. Box 434, Byron, Illinois 61010; for Braidwood, the Wilmington Public Library, 201 S. Kankakee Street, Wilmington, Illinois 60481.

Dated at Rockville, Maryland, this 13th day of March 1997.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script, reading "Robert A. Capra".

Robert A. Capra, Director
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation