

December 15, 1998

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: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT  
IMPACT - BYRON STATION, UNITS 1 AND 2, AND BRAIDWOOD STATION,  
UNITS 1 AND 2 (TAC NOS. M97546, M97547, M97548 AND M97549)

Dear Mr. Kingsley:

Enclosed is a copy of an Environmental Assessment and Finding of No Significant Impact related to your application for amendments dated December 13, 1996, as supplemented by letters dated February 24, September 2, October 10, October 28 and December 8, 1997, and January 27, January 29, February 6, February 13, February 24, February 26, April 13, April 16, June 1, June 2, July 2, July 8, July 30, July 31, August 11, August 12, September 21, September 25, October 1, October 2, October 5, October 15, October 23, November 6, November 19, November 23, November 30, and December 14, 1998. The proposed amendments would revise the Byron and Braidwood Technical Specifications to be consistent with the Improved Standard Technical Specifications conveyed by NUREG-1431 (April 1995.)

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

Sincerely,

ORIG. SIGNED BY

Ramin R. Assa, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

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

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Enclosure: Environmental Assessment

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Sincerely,

Ramin R. Assa, Project Manager  
Project Directorate III-2  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

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Enclosure: Environmental Assessment

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

December 15, 1998

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Sincerely,

A handwritten signature in black ink, appearing to read "Ramin R. Assa", is written over a horizontal line.

Ramin R. Assa, 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: Environmental Assessment

cc w/encl: See next page

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Commonwealth Edison Company

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**UNITED STATES NUCLEAR REGULATORY COMMISSION****COMMONWEALTH EDISON COMPANY****DOCKET NOS. STN 50-454, STN 50-455, STN 50-456, STN 50-457****BYRON AND BRAIDWOOD STATIONS, UNITS 1 AND 2****ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT**

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of amendments to Facility Operating License Nos. NPF-37 and NPF-66, issued to Commonwealth Edison Company (ComEd, the licensee) for operation of Byron Station, Units 1 and 2, located in Ogle County, Illinois and to Facility Operating License Nos. NPF-72 and NPF-77, issued to ComEd for operation of Braidwood Station, Units 1 and 2, located in Will County, Illinois.

**ENVIRONMENTAL ASSESSMENT****Identification of the Proposed Action:**

The proposed action would amend the Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2, Facility Operating Licenses (FOLs) and revise the Technical Specifications (TSs) to be consistent with the Improved Standard Technical Specifications (ITS) conveyed by NUREG-1431, "Standard Technical Specifications for Westinghouse Plants," Revision 1 (April 1995).

The proposed action is in accordance with the licensee's application for amendments dated December 13, 1996, as supplemented by letters dated February 24, September 2, October 10, October 28 and December 8, 1997, and January 27, January 29, February 6, February 13, February 24, February 26, April 13, April 16, June 1, June 2, July 2, July 8, July 30, July 31, August 11, August 12, September 21, September 25, October 1, October 2, October 5, October 15, October 23, November 6, November 19, November 23, November 30, and December 14, 1998.

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**The Need for the Proposed Action:**

It has been recognized that nuclear safety in all plants would benefit from improvement and standardization of the TSs. The Commission's "NRC Interim Policy Statement on Technical Specification Improvements for Nuclear Power Reactors" (52 FR 3788, February 6, 1987) and later the Commission's "Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors" (58 FR 39132, July 22, 1993) documented this need. To facilitate the development of individual improved TSs, each reactor vendor owners' group (OG) and the NRC staff developed standard TS (STS). For Westinghouse plants, the STS are contained in NUREG-1431, and this document was the basis for the new Byron and Braidwood, Units 1 and 2, TSs. The NRC Committee to Review Generic Requirements reviewed the STS and made note of the safety merits of the STS and indicated its support of conversion to the STS by operating plants.

**Description of the Proposed Change:**

The proposed revision to the TSs is based on NUREG-1431 and on guidance provided in the 1993 Final Policy Statement. ComEd's objective was to completely rewrite, reformat, and streamline the existing TSs at the Byron and Braidwood Stations. Emphasis was placed on human factors principles to improve clarity and understanding. The Bases section has been significantly expanded to clarify and better explain the purpose and foundation of each specification. In addition to NUREG-1431, portions of the existing TSs were also used as the basis for the ITS. Plant-specific issues (unique design features, requirements and operating practices) were discussed at length with ComEd, and generic matters with the OG.

The proposed changes from the existing TSs can be grouped into four general categories, as follows:

1. Nontechnical (administrative) changes that were intended to make the ITS easier to use for plant operations personnel. They are purely editorial in nature or involve the movement or reformatting of requirements without affecting technical content. Every section of the Byron and Braidwood TSs has undergone these types of changes. In order to ensure consistency, the NRC staff and ComEd have used NUREG-1431 as guidance to reformat and make other administrative changes.
2. Relocated requirements, including items that were in the existing Byron and Braidwood TSs. Pursuant to the criteria of 10 CFR 50.36, the TSs that are being relocated to licensee-controlled documents are not required to be in the TSs. The bases of the four criteria of 10 CFR 50.36 are discussed in the Commission's Final Policy Statement. The relocated requirements are not needed to obviate the possibility that an abnormal situation or event will give rise to an immediate threat to public health and safety. The NRC staff has concluded that appropriate controls have been established for all of the current specifications, information and requirements that are being moved to licensee-controlled documents. In general, the proposed relocation of items in the Byron and Braidwood TSs to the Updated Final Safety Analysis Report, appropriate plant-specific programs, procedures and ITS Bases follows the guidance of NUREG-1431. Once these items have been relocated by removing them from the TSs to licensee-controlled documents, the licensee may revise them under the provisions of 10 CFR 50.59 or other NRC staff-approved control mechanisms that provide appropriate procedural means to control changes.
3. More restrictive requirements that consist of proposed Byron and Braidwood ITS items that are either more conservative than corresponding requirements in the current Byron and Braidwood TSs, or are additional restrictions that are not in the existing Byron and



Braidwood TSs, but are contained in NUREG-1431. Examples of more restrictive requirements include: placing a limiting condition for operation on plant equipment that is not required by the present TS to be operable; more restrictive requirements to restore inoperable equipment; and more restrictive surveillance requirements.

4. Less restrictive requirements that are relaxations of corresponding requirements in the existing Byron and Braidwood TSs, that provide little or no safety benefit and place unnecessary burdens on the licensee. These relaxations were the result of generic NRC actions or other analyses, and have been justified on a case-by-case basis for Byron and Braidwood. These relaxations will be described in the staff's Safety Evaluation, to be issued when the review of the proposed license amendments is completed.

In addition to the changes previously described, the licensee proposed certain changes to the existing TSs that deviated from the STS in NUREG-1431. These additional proposed changes are described in the licensee's application and in the staff's Notices of Consideration of Issuance of Amendments to Facility Operating Licenses and Opportunity for a Hearing (October 28, 1998 (63 FR 57710) and November 2, 1998 (63 FR 58794)). Where these changes represent a change to the current licensing basis for Byron and Braidwood, they have been justified by ComEd on a case-by-case basis, and will be described in the staff's Safety Evaluation.

#### Environmental Impacts of the Proposed Action:

The Commission has completed its environmental evaluation of the proposed action and concludes that the proposed TS conversion would not increase the probability or consequences of accidents previously analyzed and would not affect facility radiation levels or facility radiological effluents.

The proposed action will not increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not involve any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the Commission concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). 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 Byron Station, Units 1 and 2, and Braidwood Station, Units 1 and 2.

Agencies and Persons Consulted:

In accordance with its stated policy, on December 15, 1998, the staff consulted with the Illinois State official, Mr. Frank Niziolek, of the Illinois Department of Nuclear Safety, regarding the environmental impact of the proposed action. The State official had no comments.

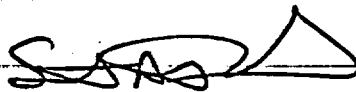
**FINDING OF NO SIGNIFICANT IMPACT**

On the basis of 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 December 13, 1996, as supplemented by letters dated February 24, September 2, October 10, October 28 and December 8, 1997, and January 27, January 29, February 6, February 13, February 24, February 26, April 13, April 16, June 1, June 2, July 2, July 8, July 30, July 31, August 11, August 12, September 21, September 25, October 1, October 2, October 5, October 15, October 23, November 6, November 19, November 23, November 30, and December 14, 1998, which are 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 15<sup>th</sup> day of December 1998

FOR THE NUCLEAR REGULATORY COMMISSION



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