



Commonwealth Edison  
1400 Opus Place  
Downers Grove, Illinois 60515

May 13, 1993

Dr. Thomas E. Murley, Director  
Office Of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attn: Document Control Desk

Subject: Byron Station Units 1 and 2  
Braidwood Station Units 1 and 2  
Application for Amendment to  
Facility Operating Licensing NPF-37, NPF-66  
NPF-72 and NPF-77  
Appendix A, Technical Specifications  
NRC Docket Nos. 50-454, 50-455, 50-456 and 50-457

Dear Dr. Murley:

Pursuant to 10 CFR 50.90, Commonwealth Edison proposes to amend Appendix A Technical Specifications, of Facility Operating License NPF-37, NPF-66, NPF-72 and NPF-77. The proposed amendment requests changes to Technical Specification 3/4.6.1.7, Containment Purge Ventilation System, to allow the simultaneous opening of the eight (8) inch miniflow purge supply and exhaust valves to ensure the containment atmosphere is conducive to human occupants and to maintain their dose as low as reasonably achievable.

The description and summary of the proposed changes is presented in Attachment A. The revised Technical Specification pages are contained in Attachment B. Attachment C includes a safety evaluation pertaining to the proposed change.

The proposed changes have been reviewed and approved by both on-site and off-site review in accordance with Commonwealth Edison procedures. Commonwealth Edison has reviewed this proposed amendment in accordance with 10 CFR 50.92(c) and has determined that no significant hazards consideration exists. This evaluation is documented in Attachment D. An Environmental Assessment has been completed and is contained in Attachment E. Attachments F and G present simplified drawings of the Containment Purge system and Mini-Purge subsystem, respectively.

Commonwealth Edison is notifying the State of Illinois of our application for this amendment by transmitting a copy of this letter and its attachments to the designated State Official.

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May 13, 1993

To the best of my knowledge and belief the statements contained herein are true and correct. In some respects, these statements are not based on my personal knowledge but upon information received from other Commonwealth Edison and contractor employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

Please direct any questions you may have concerning this matter to this office.

Sincerely

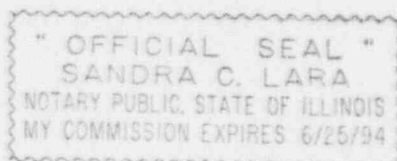
*Terrence W. Simpkin*

T.W. Simpkin  
Nuclear Licensing Administrator

Attachments (A): Description and Summary  
(B): Proposed Technical Specification Changes  
(C): Safety Evaluation  
(D): Evaluation of Significant Hazards Consideration  
(E): Environmental Assessment Statement  
(F): Simplified Drawing-Containment Purge System  
(G): Simplified Drawing-Mini Purge Subsystem

cc: H. Peterson-Resident Inspector, Byron  
S. Dupont-Resident Inspector, Braidwood  
J. Hickman-Project Manager (Byron), NRR  
R. Assa-Project Manager (Braidwood), NRR  
B. Clayton-Branch Chief, Region III  
Office of Nuclear Facility Safety-IDNS

State of Ill, County of DuPage  
Signed before me on this 13th day  
of May, 1993 by TWS  
Notary Public: [Signature]



## ATTACHMENT A

### DETAILED DESCRIPTION OF THE PROPOSED CHANGES

#### **Description of the Current Operating License (OL) Requirements:**

The current specification 3/4.6.1.7 states that the 8-inch containment purge (mini-purge) supply and exhaust isolation valve(s) may be open for up to 1000 hours during a calendar year provided no more than one line is open at one time.

#### **Bases for the Current OL Requirements:**

The current requirements are intended to ensure that containment releases following an accident are maintained within the limits of the safety analyses. The existing analyses assume that only one mini-purge supply or exhaust line would be open at the time of the accident. The 1000 hour limit is intended to restrict operation to reduce the potential of having a mini-purge supply or exhaust line open at the time of an accident.

#### **Description of the Need for Amending the Technical Specifications:**

Currently, every operation of the mini-purge system affects containment pressure due to the restrictions imposed by Specifications 3/4.6.1.7. With only one mini-purge supply or exhaust line open at one time, the mass addition or removal from the containment atmosphere causes a corresponding increase or decrease in the containment pressure. Since containment pressure must be maintained within a narrow range prescribed by Specifications 3/4.6.1.4, these restrictions effectively limit the use of the mini-purge system to containment pressure control.

The purpose of this proposed amendment to the Technical Specifications is to permit the opening of the mini-purge supply and exhaust lines concurrently, under certain conditions, to allow the mini-purge system to be effectively used for reasons other than containment pressure control. Concurrent opening of the mini-purge supply and exhaust lines will equalize the mass addition and removal from the containment atmosphere. This will allow containment pressure to remain unchanged during mini-purge system operation. Under these conditions, the mini-purge system can be used effectively for other reasons.

These reasons include the reduction of airborne activity in the containment atmosphere and improved respirable air quality of the containment atmosphere prior to personnel entry into the containment. Other safety-related reasons include the maintaining of limits required by the Technical Specifications, Updated Final Safety Analysis Report (UFSAR), Code of Federal Regulations, Regulatory Guides, Safety Evaluation Reports, and other design basis documentation.

#### **Description of the Proposed Amendment:**

Specification 3.6.1.7 will be revised to delete the limitation of no more than 1000 hours of mini-purge system operation in a calendar year. The prohibition against the concurrent opening of the mini-purge supply and exhaust lines will also be deleted. The reasons for mini-purge system operation will be specified. These reasons are containment pressure control, reduction of airborne activity, respirable air quality considerations for personnel entry, surveillance tests that require the valve(s) to be open, and other safety-related purposes.

Specification 4.6.1.7.2 will be revised to replace the requirement to determine the number of hours that the mini-purge valves have been open during the calendar year with a requirement to verify the valve positions at least once per 31 days.

The Bases of Specifications 3/4.6.1.7 will be revised to reflect requirements of the revised Specifications.

#### **Basis for the Proposed Amendment:**

The proposed amendment to Specification 3.6.1.7 would allow the mini-purge system to be effectively utilized for other reasons in addition to containment pressure control. These other reasons include reduction of airborne activity, respirable air quality considerations for personnel entry, surveillance tests that require the valve(s) to be open, and other safety-related purposes. For the mini-purge system to be effective in performing these other tasks, the supply and exhaust lines must be open concurrently.

Typically, each unit's mini-purge supply and exhaust valves are open in the range of 100-200 hours per calendar year while the unit is in MODES 1, 2, 3, and 4 for the purpose of containment pressure control. Containment pressure control will continue to be the primary reason for mini-purge system operation. The 1000 hour limitation will be unnecessary since mini-purge system operation will be limited to reasons delineated in the revised specification.

The containment isolation function of the mini-purge supply and exhaust valves is not affected by the proposed amendment. The containment ventilation isolation signals which will automatically close the mini-purge supply and exhaust valves are not changed by this proposed amendment. Likewise, the maximum isolation times for the mini-purge supply and exhaust valves required by Specifications 3/4.6.3 are not changed by this proposed amendment.

Operation of the mini-purge system in accordance with the requirements of this proposed amendment causes a slight increase in the potential offsite dose if an accident was initiated during mini-purge system operation with the supply and exhaust lines open concurrently. This is due to an additional release pathway being open from containment. This additional release pathway will be isolated by the same isolation signal and within the same time frame as the one original release pathway previously analyzed. The Westinghouse Electric Corporation has analyzed this scenario for the Commonwealth Edison Company (CECo) and has determined that the slight increase in potential offsite dose is not significant and that all potential releases will remain well within Title 10, Code of Federal Regulations, Part 100 limits. CECo has reviewed the results of this analysis and concurs with the conclusions.

The proposed amendment to Specification 4.6.1.7.2 will ensure that the mini-purge supply and exhaust valves are in their correct position.

The proposed amendment to the Bases of Specifications 3/4.6.1.7 is necessary to properly reflect the requirements and limitations of the new Specifications.

#### **Schedular Requirements:**

There are no schedular requirements associated with this amendment request.