

December 6, 1994

Mr. D. L. Farrar
Manager, Nuclear Regulatory Services
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING THE USE OF HIGHER
ENRICHED FUEL, BYRON AND BRAIDWOOD STATIONS (TAC NOS. M90831,
M90832, M90833, AND M90834)

Dear Mr. Farrar:

By letter dated November 11, 1994, Commonwealth Edison Company (ComEd)
requested approval of a license amendment to permit the use of higher enriched
fuel.

During our review we identified additional information that is required before
we can complete our activities. Questions 1 through 4 of the enclosed Request
for Additional Information (RAI) have been provided informally to your staff.

Because ComEd requested completion of the review before the February 1995
refueling outage for Byron, Unit 2, we request an expeditious response to this
RAI so that our review remains on schedule.

This requirement affects one respondent and, therefore, is not subject to
Office of Management and Budget review under P.L. 96-511.

If there are questions regarding this request, I may be contacted at (301)
504-3019.

Sincerely,

Original signed by:

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

9412080212 941206
PDR ADOCK 05000454
P PDR

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

Enclosure: Request for Additional Information

cc w/encl: see next page

Distribution:	Docket File	PUBLIC	PDIII-2 r/f (2)
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NAME	CMOORE		GDICK		RASSA		RCAPRA			
DATE	12/1/94		12/06/94		12/6/94		12/01/94		12/ /94	

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D. L. Farrar
Commonwealth Edison Company

cc:

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Chairman, Ogle County Board
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REQUEST FOR ADDITIONAL INFORMATION

USE OF HIGHER ENRICHMENT FUEL

BYRON NUCLEAR POWER STATION, UNITS 1 AND 2

BRAIDWOOD NUCLEAR POWER STATION, UNITS 1 AND 2

COMMONWEALTH EDISON COMPANY

1. Please describe the boral inserts mentioned on page 8 of the criticality analyses in more detail. How and when were these inserted?
2. In determining the Integral Fuel Burnable Absorber requirements as a function of initial enrichment, it is stated that the fuel assembly is modeled at its most reactive point in life. At what point is this?
3. Section 4.2 states that the burnup credit curve shown in Figure 7 on page 36 includes a reactivity uncertainty of $0.015 \Delta k$. The corresponding Technical Specification Figure 5.6-1 appears to include an additional 3 percent penalty factor. What is the reason for this?
4. How do the k-eff values determined with KENO Va compare to those determined with the PHOENIX code?
5. Technical Specification 5.6.1.2 applied only to fresh fuel for the initial core stored dry in the spent fuel storage racks and is no longer applicable. Has the criticality analysis for storage of fresh 5.0 weight percent fuel in the new fuel vault been submitted and reviewed by the NRC?