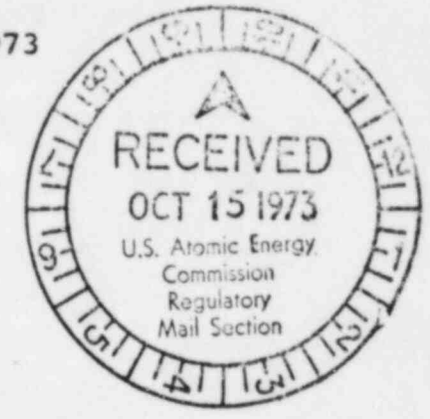
Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

October 11, 1973



Mr. D. J. Skovholt
Assistant Director for
Operating Reactors
Directorate of Licensing
Office of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Subject: Dresden Units 2 and 3, Quad-Cities Units 1 and 2 - Inverted Control Rod Tubes - AEC Dkts 50-237, 50-249, 50-254 and 50-265

Dear Mr. Skovholt:

In response to your letter dated September 5, 1973, the following information concerning our program for possible inverted control rod tubes is supplied. Your letter indicated six specific items of concern. Our response to Items 4 and 5 is attached. Completed answers to Questions 1, 2, 3 and 6 are currently in preparation and are expected to be submitted by October 31, 1973.

Questions 1 and 2 of your letter involved information concerning possible extent and effect of loss of negative reactivity due to inverted control rod tubes. These questions are addressed in a report submitted on the Millstone Unit 1 docket and the answers in that report are generally applicable to the Dresden and Quad-Cities units. The specific answers for Dresden and Quad-Cities, expected to be submitted by October 31, 1973, will include consideration of the higher shutdown margins which exist at our plants compared to Millstone.

One signed original and 39 copies of this letter are provided for your use.

Very truly yours,

J. S. Abel
Nuclear Licensing Administrator -
Boiling Water Reactors

Att.

ATTACHMENT

Control Blade - Response to the AEC

(4) Surveillance requirements to maintain adequate shutdown reactivity margins and monitor changes in poison distribution.

A significant amount of operation allowing for compaction of boron has accrued, and in addition, a recent demonstration of 1% $\Delta K/K$ margin for each control blade was performed on all 4-800 MW BWR's. A monthly equivalent reactivity anomaly check is performed and a planned check of all blades during the forthcoming refueling outages obviate the need for an extensive amount of surveillance.

However, in order to provide additional assurance during the remainder of the present operating cycles, a 1% $\Delta K/K$ margin check for two or more selected rods and a local critical check will be performed for any unit (D2, D3, QC1, QC2) in the cold Xenon free condition (72 hour or longer outage). Additionally, for each startup following a 72 hour outage during the remainder of the present operating cycles, the control rod pattern at the time of achieving criticality will be recorded and evaluated. Anomalies of 1% $\Delta K/K$ or more will be reported as an abnormal occurrence and significant deviations of less than 1% $\Delta K/K$ will be reported as an unusual event (30 day letter).

(5) Plans and schedules for changeout of control rods.

Commonwealth Edison Company will check all of the control blades in Dresden 2 and 3 and Quad Cities 1 and 2 by using a detector (probably an eddy current device used by General Electric) to check for the steel wood packing in the tubes which should be at the bottom of the tubes. Any blades, sheaths or tubes found to be inverted will be reported to the AEC at the completion of the checking program for each unit. Any control blade with a significant number of inverted tubes will be replaced. Commonwealth Edison Company plans to accomplish the checking and any necessary replacement of blades during the forthcoming scheduled refueling outage for each unit and in any event within two refueling outages.