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

June 17, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Byron Station Units 1 and 2
Braidwood Station Units 1 and 2
Additional FSAR Information
NRC Docket Nos. 50-454/455 and
50-456/457

Dear Mr. Denton:

The purpose of this letter is to provide our Braidwood Station response to Question No. 423.40 concerning suction conditions for the ESW pumps. Our FSAR will be amended to include the information contained in the Attachment to this letter as appropriate.

Please address any questions that you or your staff may have concerning this matter to this office.

One (1) signed original and fifteen (15) copies of this letter with Attachment are provided for your use.

Very truly yours,

E. Douglas Swartz
Nuclear Licensing Administrator

Attachment

cc: J. G. Keppler - RIII
RIII Inspector - Braidwood

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1/1

QUESTION 423.40

"Verify that sources of water used for long-term core cooling are tested to demonstrate adequate NPSH and the absence of vortexing over range of basin level from maximum to the minimum calculated 30 days following LOCA."

RESPONSE

Tests at Byron will demonstrate the adequacy of NPSH and the absence of vortexing over the range of basin levels anticipated in the essential service water cooling towers. Such testing is not feasible at Braidwood because the essential service water is taken from the lake. There is no reason to expect vortexing in the intake bay. The essential service water cooling tower basin at Byron is only 40 feet wide. On the other hand, the Braidwood intake bay is approximately 90 feet by 190 feet. As a result the geometry is not expected to promote vortexing. With the lake at normal water level the essential service water intake is 12 feet 4 inches below the surface. In the event of a failure of the retaining dikes the intake will be 7 feet 4 inches below the surface. NPSH calculations have demonstrated the adequacy of this submergence.