



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20545

July 25, 1989

JUL 31 1989

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

Mr. Thomas J. Kovach  
Nuclear Licensing Manager  
Commonwealth Edison Company  
Post Office Box 767  
Chicago, IL 60690

Dear Mr. Kovach:

SUBJECT: DESIGN OF CONTAINMENT HYDROGEN MONITORING SYSTEM

Appendix E, page E.30-7 of the Byron/Braidwood Updated Final Safety Report (UFSAR) discusses the design of the containment hydrogen monitoring system. It states that "separate piping penetrations of the containment system are utilized by each train of this system. Each train is powered from a separate AC power source."

In our original Safety Evaluation Report (SER) NUREG-0876, dated February 1982, we accepted this design on pages 5-17, 6-22 and 7-26. On page 6-22, we stated that the hydrogen monitoring system meets the single failure criterion.

However, on July 20, 1989, the Senior Resident Inspector at Byron Station notified us that the actual plant configuration in one area does not agree with your UFSAR or our SER. Each of the two containment piping penetrations for the suction of the hydrogen monitors has two isolation valves in series. One valve on each line is powered from DC Bus E11 and the other valve on each line is powered from DC Bus E12. Thus, a single failure, the loss of either Bus E11 or Bus E12, could result in the loss of both containment piping penetrations and a loss of the hydrogen monitoring system.

Please provide a response to this letter within 30 days of receipt. Your response should propose a design change to the system, with a schedule for implementing the change, or a justification for the existing configuration.

Sincerely,

Leonard N. Olshan, Project Manager  
Project Directorate III-2  
Division of Reactor Projects III,  
IV, V, and Special Projects