

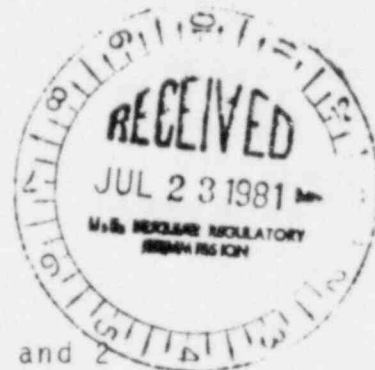


Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

DMB/50.55(e)

July 16, 1981

Mr. James G. Keppler, Director
Directorate of Inspection and
Enforcement - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137



Subject: LaSalle County Station Units 1 and 2
Design Deficiency in the Hydrogen
Recombiner System
NRC Docket Nos. 373/374

Dear Mr. Keppler:

On June 16, 1981, Commonwealth Edison Company LSCS Project Engineering notified Mr. Frank Reimann of your office that the Hydrogen Recombiner System at LaSalle County Station appeared to have a design deficiency reportable pursuant to 10CFR50.55(e). This letter fulfills the thirty (30) day reporting requirements of 50.55(e) regarding this item.

DESCRIPTION OF DEFICIENCY

During preoperational testing at LaSalle County Station, a test engineer discovered that the water level in the suppression pool was above the hydrogen recombiner return line. Since this is contrary to the system design, this problem was reviewed to determine if the suppression pool level could rise above the recombiner discharge line after an accident or transient. The water level was calculated to potentially increase to elevation 706'-11". The recombiner discharge lines are currently attached to primary containment penetrations M-95 and M-102 which are located at elevation 701'-0". The normal suppression pool water level is 699'-11".

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ANALYSIS OF SAFETY IMPLICATIONS

The design flow rate for the hydrogen recombiner is 150 scfm, and the minimum flow rate needed to prevent the formation of a combustible gas mixture in the containment is 127.5 scfm. If the suppression pool level is allowed to rise above the discharge line, the discharge pressure head will increase thus decreasing the flow rate. According to the blower performance curve supplied by the vendor, an increase in the discharge pressure head of only 9 inches of H₂O will drop the flow rate about 25 scfm. Therefore, at the suppression pool water levels postulated to occur after an incident, the hydrogen recombiners would not be able to perform their intended safety related function.

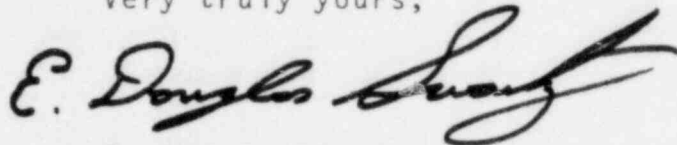
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CORRECTIVE ACTION

The discharge lines will be rerouted and connected to penetrations M-104 and M-106 which are located at elevation 725'6" and are above the maximum suppression pool water level postulated to occur under a LOCA or transient. The applicable design documents have been revised and issued for construction, which is currently in progress. Construction will be completed by fuel load.

Please address any further questions that you may have concerning this matter to this office.

Very truly yours,

A handwritten signature in black ink, appearing to read "E. Douglas Swartz", written in a cursive style.

E. Douglas Swartz
Nuclear Licensing Administrator

cc: Director of Inspection
and Enforcement

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