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Dmb

August 16, 1984

Mr. James G. Keppler
Regional Administrator
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Braidwood Station Units 1 and 2
10 CFR 50.55(e) Final Report
Recycle Holdup Tank Leak
NRC Docket Nos. 50-456/457

Reference (a): E. D. Swartz letter to J. G. Keppler
dated May 10, 1984

Dear Mr. Keppler:

On April 13, 1984, the Commonwealth Edison Company notified your office of a deficiency reportable pursuant to 10 CFR 50.55(e) regarding a leak in the Recycle Holdup Tanks OAB01TA and OAB01TB at our Braidwood Station. Reference (a) provided information concerning this matter to fulfill the thirty day reporting requirements. For your tracking purposes, this deficiency was assigned Number 84-06.

The purpose of this letter is to provide your office with the final report concerning this matter.

FINAL RESOLUTION

Since the submittal of our Reference (a) report, Chicago Bridge and Iron, in consultation with Parker Labs, have completed their analysis to determine the cause of our Recycle Holdup Tank leakage. The results of this analysis indicate that bacteria-accelerated corrosion of weld metal from the tank exterior was the primary failure mechanism.

A unique set of circumstances associated with the Recycle Holdup Tank design and their location resulted in the corrosion related leaks. The tank bottoms were fabricated using lap joint welds which result in exterior crevices. In addition, the tank foundations consist of a sand bed enclosed by a ring wall. Groundwater seepage into the vault area where the tanks are

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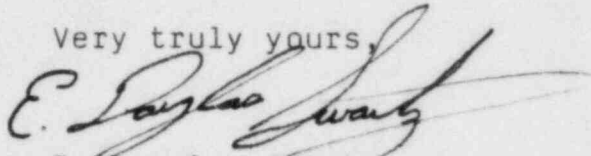
located wetted the foundation sand, which along with the weld crevices, provided an environment which promoted bacteria growth leading to accelerated corrosion.

Chicago Bridge and Iron is currently revising their tank design procedures to utilize butt weld construction for tank bottoms, and to eliminate the use of sand in foundation construction.

The installation of new bottoms on the affected Braidwood Station tanks and foundation modification work will commence in mid-September. This work is anticipated to be completed by December 1, 1984. This deficiency is being tracked by the Commonwealth Edison Company NCR #604.

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

Very truly yours,



E. Douglas Swartz
Nuclear Licensing Administrator

cc: NRC Resident Inspector - Braidwood

Director of Inspection and Enforcement
US Nuclear Regulatory Commission
Washington, DC 20555