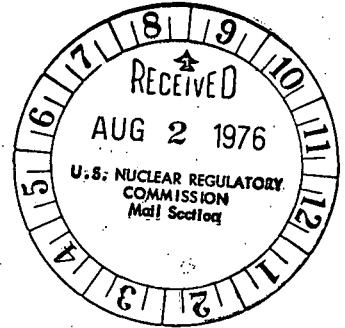




Commonwealth Edison
 One First National Plaza, Chicago, Illinois
 Address Reply to: Post Office Box 767
 Chicago, Illinois 60690



July 30, 1976

Mr. Dennis L. Ziemann, Chief
 Operating Reactors Branch 2
 Division of Operating Reactors
 U.S. Nuclear Regulatory Commission
 Washington, D.C. 20555

**Subject: Dresden and Quad-Cities Stations
 Supplement No. 1 to Dresden Station
 Special Report No. 39 and Quad-Cities
 Station Special Report No. 14,
 Analysis of Hydrogen Generation and
 Control in Primary Containment Following
 Postulated Loss of Coolant Accident
 NRC Docket Nos. 50-237, 50-249,
 50-254, and 50-265.**

Dear Mr. Ziemann:

Enclosed is page 39 of the subject report amended July 1976 to correct the material used in the sensing element of the hydrogen detectors proposed for installation as part of the CAM/ACAD system.

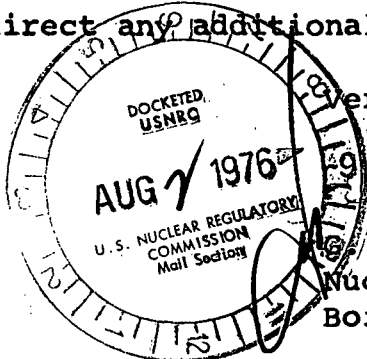
This information was given to your staff during a meeting between representatives of Commonwealth Edison and your staff on April 22, 1976. This fulfills a commitment to correct the subject report.

Enclosed are one (1) signed original and 59 copies for your use.

Please direct any additional questions to this office.

Very truly yours,

[Signature]
 A. Abrell
 Nuclear Licensing Administrator
 Boiling Water Reactors



7698

Enclosures

Regulatory Docket File

VI. INSTRUMENTATION AND CONTROLS

1.0 CONTAINMENT ATMOSPHERE MONITORING SYSTEM

The purpose of the containment atmosphere monitoring system instrumentation and control is to provide the signals necessary to indicate and alarm high hydrogen or high gross gamma radiation in the drywell or containment following a Loss-of-Coolant Accident. The gross gamma monitoring subsystem monitors the dose rate resulting from gross release of fission products from the fuel. The hydrogen and gross gamma monitoring subsystems consist of duplicate channels, each of which is designed to monitor the drywell and suppression chamber under LOCA conditions. Each channel provides a local measurement in both areas and transmits the signal to the control room where a permanent record is provided on recorders.

1.1 Hydrogen Monitoring Initiating Circuits

Two hydrogen sensors are mounted directly in the drywell and two in the suppression chamber. Instead of bringing the sample out of the drywell and suppression chamber, the measurement is made in place and the electrical signal is transmitted through a suitable penetration to the control room. One sensor from each area is coupled to form a single analyzer unit. The volume percent hydrogen is recorded by the 2-channel strip chart recorders in the control room. The milliamp signals generated by the sensors are suitably conditioned and amplified by solid-state electronic modules for transmission to the control room. Once at the control room the total pressure transducer signal is used to divide the partial pressure signal from the sensors with the resultant volume percent hydrogen then displayed on the recorder chart. Two such units make up the total analyzer package.

The hydrogen monitoring system utilizes a partial sensor design concept. The active sensing element is a platinum black which generates an electrical current that is directly proportional to the hydrogen partial pressure in the drywell and suppression chamber atmosphere.