Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

June 9, 1977

50-237

BBS Ltr: 77-514

Mr. James G. Keppler, Regional Director
Directorate of Regulatory Operations-Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinios 60137

Dear Mr. Keppler:

This report is furnished pursuant to section 6.6.C.3 of the Dresden Unit 2 Technical Specifications which requires an evaluation of main steam line process radiation monitoring system relative to detecting fuel leakage.

The high radiation monitors in the main steam line tunnel are designed to detect gross fuel failures. Gross fuel failures would result in an increased radiation level at the detector location and provide an automatic isolation of Group 1 valves when radiation levels reached a set point three times full power background radiation levels.

The performance of this type of radiation monitoring system has been evaluated. No gross fuel failures have occurred on Dresden Unit 2. The most significant incident of fuel failure that occurred at Dresden occurred on Unit 3 on October 31, 1974, when a control rod withdrawal error resulted in localized fuel leakage. This fuel leakage was detected by the main steam line high radiation monitors which increased by a factor of approximately 1.3. Thus this type of monitoring system will detect fuel failures.

Out experience indicates that the air ejector off gas monitors, located at the beginning of the off gas hold pipe, are a more sensitive means of detecting fuel failures. During the Unit 3 October 31, 1974, incident these monitors increased by a factor of approximately 8.

Sincerely,

Arthur M Roberts

for B.B. Stephenson
Station Superintendent
Dresden Nuclear Power Station

BBS:av

cc: File/NRC
M.S. Turbak

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