November 2, 1990 BW/90-1089

U. S. Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

Dear Sir:

The enclosed Licensee Event Report from Braidwood Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(iv) which require a 30-day written report.

This report is number 90-019-00; Docket No. 50-456.

Very truly yours,

K. L. Kofron

Station Manager Braidwood Nuclear Station

KLK/JDW/clf (7126z)

Enclosure: Licensee Event Report No. 90-019-00

cc: NRC Region III Administrator

NRC Resident Inspector INPO Record Center CECo Distribution List

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At 0728 on October 6, 1990 the Gas Detector channel of Process Radiation Monitor (PR) OPR31J, Control Room Outside Air Intake A, experienced a spike that resulted in a High Radiation Alarm. This caused a Control Room Ventilation (VC) actuation for the OA Train of VC. As a result the OA VC supply Fan Dampers repositioned to provide flow through charcoal adsorbers, the OA VC Makeup Fan started, and dampers repositioned to provide flow through the OA Makeup Filter Unit. The Reactor Operator verified all automatic actions and confirmed that a High Radiation condition did not exist by trending the OPR31J and the redundant monitor, OPR32J. The monitor was declared inoperable. During the next several weeks the monitor and its associated instrument and control circuit were tested. No problems were identified, nor did any additional spikes occurr. At 0126 on October 20, 1990 after completion of all trouble shooting activities, the OPR031J was declared operable. The cause of the spike is unknown. Discrepancies with Radiation Monitoring components are being trended. This event has been added to that trend. Previous corrective actions are not applicable to this event.

	LICENSEE EVENT REPORT (LER) T	EXT CONTINU	ATION	Form Rev 2	
FACILITY NAME (1)	DOCKET NUMBER (2)	LER MUNE	Page (3)		
		Year 1	Sequential /// Revision		
Braidwood 1	0 1 5 1 0 1 0 1 0 1 41 516		- 01118 - 010		

# A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: Braidwood 1; Event Date: October 6, 1990;

Event Time: 0728;

Mode: 5 - Cold Shutdown:

Rx Power: 0%;

RCS [AB] Temperature/Pressure: 180 degrees F/360 psig.

# B. DESCRIPTION OF EVENT:

There were no systems or component< inoperable at the beginning of the event which contributed to the severity of the event.

At 0728 on October 6, 1990 the Gas Detector channel of Process Radiation Monitor (PR)[IL] 0PR31J, Control Room Outside Air Intake A, experienced a spike that resulted in an High Radiation Alarm Setpoint being exceeded. This caused a Control Room Ventilation actuation for the OA Train of Control Room Ventilation (VC)[VI]. As a result the following occurred:

- 1. The DA VC supply Fan Dampers repositioned to provide flow through charcoal adsorbers.
- 2. The DA VC Makeup Fan started.
- 3. Dampers repositioned to provide flow through the OA Makeup Filter Unit.

The Nuclear Station Operator (NSO) (Licensed Reactor Operator) verified all automatic actions and confirmed that a High Radiation condition did not exist by trending the OPR31J and the redundant monitor, OPR32J. The monitor was declared inoperable and the appropriate Technical Specification Action Statement was entered and complied with.

The appropriate NRC notification via the ENS phone system was made at 0849 pursuant to 10CFR50.72(b)(2)(ii).

During the next several weeks the monitor and its associated instrument and control circuit were tested. No problems were identified, nor did any additional spikes occurr.

At 0126 on October 20, 1990 after completion of all trouble shooting activities, the OPR031J was declared operable and the Technical Specification action statement was exited.

This event is being reported pursuant to 10CFR50.73(a)(2)(iv) - any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature, including the Reactor Protection System.

#### C. CAUSE OF EVENT:

The root cause of this event was a spurious spike of the Gas Channel of OPR31J for unknown reasons. Both the monitor and the detector were tested and all items functioned properly. The monitor was trended for several weeks and the monitor performed satisfactorily.

FACILITY NAME (1)	LICENSEE EVENT REPORT (LER)     DOCKET NUMBER (2)	TEXT CONTINUATION Form Rev 2.  LER NUMBER (6) Page (3)
		Year     Sequential   Revision   Number   Number
Braidwood 1	01510101014151	6 9 9 - 0 1 1 1 9 - 0 1 0 0 13 OF 01

### D. SAFETY ANALYSIS:

This event had no effect on the safety of the plant or the public. There was no radioactivity present. OPR31J operated as designed and generated a Control Room Ventilation Actuation signal for the OA train of VC. The OPR32J was sperable and available for redundant indication of the activity level.

Under more limiting conditions of actual radioactivity, the Control Room Ventilation would have shifted to the ESF safe configuration as was the case in this event.

# E. CORRECTIVE ACTIONS:

All automatic actions were verified.

The NSO verified that a High Radiation condition did not exist using the redundant monitor and trends on the OPR31J.

The detector for the Gas Channel as well as monitor OPR31J were tested and trended for several weeks. No problems were identified and all items functioned as designed.

Discrepancies with Radiation Monitoring components are currently being trended in the Braidwood Station Trend Report program. This event has been added to that trend.

# F. PREVIOUS OCCURRENCES:

There have been previous occurrences of spurious Control Room Ventilation Actuation Signals. In each case corrective actions were implemented addressing both root and contributing causes. Previous corrective actions are not applicable to this event.

### G. Component Failure Data:

This event was not the result of component failure, nor did any components fail as a result of this event.