Commonwealth Edison Company
Braidwood Generating Station
Route #1, Box 84
Braceville, IL 60407-9619
Tel 815-458-2801

ComEd

October 5, 1995
BW/95-0097

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

Gentlemen:

The enclosed Licensee Event Report from Braidwood Generating Station is being transmitted in accordance with the requirements of 10 CFR 50.73(a)(2)(i) and 10 CFR 50.36(c)(2), which require a 30-day written report.

This report is number 95-009-00, Docket No. 50-456.

Yours truly,

T. J. Tulon
Station Manager
Braidwood Nuclear Station

TJT/PS/dla
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Encl: Licensee Event Report
No. 456-95-009-00

cc: NRC Region III Administrator
NRC Resident Inspector
INPO Record Center
CECo Distribution Center
I.D.N.S.
I.D.N.S. Resident Inspector

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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Braidwood 1	05000456	1 OF 6

TITLE (4) Missed Control Room Ventilation one hour LCOAR due to Personnel Error and Equipment Failure.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
09	08	95	95	-- 009 --	00	10	05	95	Braidwood Unit 2	05000457
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)
	20.405(a)(1)(ii)	X	50.36(c)(2)		50.73(a)(2)(vii)		OTHER
	20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)	
	20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		
	20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
P. Studdard, System Engineering	(815)458-2801 x3110

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	IL	O-Ring	GA Tech. Inc.	N						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE).	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

At 1425 on 09/08/95, an extra Nuclear Station Operator (NSO, licensed reactor operator) noted that the 0PR32J (Control Room Air Intake Train A Rad Monitor) was in interlock on the RM-23 (Control/Display Module for safety related rad monitors). The extra NSO notified the Unit 1 Unit Supervisor (licensed senior reactor operator). The Unit 1 Unit Supervisor notified the Shift Engineer (licensed senior reactor operator) and entered LCOAR 3.3.1-1a. A review of the RM-11 Alarm Typer indicated that the 0PR32J skid had been off-line from 1127. At 1433 the 0A Control Room Ventilation (VC) train was placed in makeup with the absorber on line, however the Control Room Ventilation System was not isolated prior to placing the 0B VC train in service. At 1501 the 0A VC Train was shutdown in preparation to shift to the 0B VC Train. At 1511 the 0B VC Train was placed in service. The one hour LCOAR requirements were not met for 3 hours and 44 minutes. Repairs to the 0PR32J skid were completed and the LCOAR exited on 9/13/95. The cause of the event was personnel error. Corrective actions include counseling personnel concerning their performance relating to the event and management's expectations regarding teamwork, standards, and a questioning attitude, as well as enhancements to training concerning teamwork and team building. There have been two previous occurrences of missed LCOARs due to personnel error.

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LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Braidwood 1	05000456	95	-- 009 --	00	2 OF 6

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: Braidwood 1; Event Date: September 8, 1995;
Event Time: 1127;
Mode: 1 - Power Operation; Rx Power: 100%;
RCS [AB] Temperature/Pressure: NOT/NOP

Unit: Braidwood 2; Event Date: September 8, 1995;
Event Time: 1127;
Mode: 1 - Power Operation; Rx Power: 100%;
RCS [AB] Temperature/Pressure: NOT/NOP

B. DESCRIPTION OF EVENT:

There were no systems or components inoperable at the beginning of the event that contributed to the severity of the event.

On 9/8/95 Instrument Maintenance personnel were performing calibrations on the 2PR27J (Steam Jet Air Ejector Rad Monitor) skid. During the course of events this resulted in numerous alarms being received on the RM-11's (Central Processing Unit for radiation monitors) for both units. At approximately 1115 operating commenced 1BwOS 3.2.1-921 (Unit One ESFAS Instrumentation Slave Relay Surveillance - Train A Turbine Trip - K640). At approximately 1120 the extra Nuclear Station Operator (NSO, licensed reactor operator) performing 1BwOS 3.2.1-921 reported problems with the surveillance to the Unit 1 Unit Supervisor (licensed senior reactor operator). During restoration of the surveillance the local Electro Hydraulic (EH) pressure did not approximate the pressure that was taken before the 20/Emergency Trip (ET) valve was cycled. The Unit 1 Unit Supervisor reviewed the surveillance and associated system drawings. At approximately 1122 the Unit Supervisor reviewed appropriate Technical Specifications and determined that the station had six hours to correct the problem or be in at least hot standby within the next six hours. There was also concern that the problem could cause a unit trip. The Unit 1 Unit Supervisor beeped the Shift Engineer (licensed senior reactor operator) at the 1100 planning meeting. At approximately 1124 the Unit Supervisor called and then paged the System Engineer. At approximately 1126 the System Engineer contacted the Unit Supervisor and discussed the problem and provided recommendations. The Shift Engineer contacted the Unit Supervisor and was informed of the problems encountered during the surveillance. At 1127 the RM-11 alarmed for the 0PR32J skid. An extra NSO (licensed reactor operator) in the Main Control Room acknowledged the alarm and reported it to the Unit 1 Unit Supervisor. The extra NSO was directed to try and restart the skid. Instrument Maintenance personnel involved in the 2PR27J skid calibrations were not in the Main Control Room at this time. The

extra NSO attempted to restart the skid but was unsuccessful and reported this to the Unit 1 Unit Supervisor. The Unit 1 Unit Supervisor acknowledged the extra NSO and the extra NSO then left the Main Control Room. The Unit 1 NSO (licensed reactor operator) was not informed of the RM-11 alarm but did recall overhearing discussions between the extra NSO and the Unit Supervisor. No actions were taken by the Unit 1 Unit Supervisor, NSO, or extra NSO to ensure that the appropriate Technical Specification requirements were carried out for the 0PR32J. The Shift Engineer was not informed of the problem. The unit 2 RM-11 alarm was also acknowledged but the Unit 2 NSO could not recall getting the alarm or acknowledging it. The unit 2 RM-11 audible alarm was acknowledged at 11:27 but the actual skid in alarm was not acknowledged until 11:41. No actions were taken by unit 2 personnel. The Unit 2 Unit Supervisor was not in the control room at the time of the alarm.

The Unit 1 Unit Supervisor and Unit 1 NSO became distracted with the problem associated with 1BwOS 3.2.1-921. At 1145 a HLA briefing was conducted to discuss performing a partial surveillance of 1BwOS TS-R1 (Unit One Turbine Overspeed Trip and Hydraulic Components 18 Month Surveillance) to cycle the 20/ET valve. The partial surveillance did not resolve the EH pressure problem. At 1308 the 1A Safety Injection (SI) pump was started for performance of 1BwVS 5.2.F.2-1 (ASME Surveillance Requirements for the 1A Safety Injection Pump). At 1310 the applicable portions of 1BwOS TS-R1 were performed multiple times to exercise the 20/ET valve. Again this did not resolve the problem and further research and discussions were conducted to attempt to correct the problem. At 1343 1BwVS 5.2.F.2-1 was completed satisfactorily and the 1A SI pump was secured.

At 1425 on 09/08/95, an extra NSO noted that the 0PR32J was in interlock on the RM-23 (Control/Display Module for safety related radiation monitors). The extra NSO notified the Unit 1 Unit Supervisor. The Unit 1 Unit Supervisor entered LCOAR 3.3.1-1a and at 1433 the 0A Control Room Ventilation (VC) train was placed in makeup with the absorber on line but the Control Room Ventilation System was not isolated prior to placing the OB VC Train in service. A review of the RM-11 Alarm Typer indicated that the 0PR32J skid had been off-line from 1127. At 1501 the 0A VC Train was shutdown in preparation to shift to the 0B VC Train. At 1511 the 0B VC Train was placed in service. The one hour LCOAR requirements were not met for 3 hours and 44 minutes.

Repairs to the 0PR32J skid were completed on 9/13/95 and the LCOAR was exited.

This event is being reported pursuant to 10CFR50.36(c)(2) - When a limiting condition for operation of a nuclear reactor is not met and 10CFR50.73(a)(2)(i)(B) - Any operation or condition prohibited by the plant's Technical Specifications.

C. CAUSE OF THE EVENT:

The cause of the event was Personnel Error and Equipment Failure. There was a lack of teamwork and a questioning attitude between the Unit Supervisor, Unit 1 NSO, Unit 2 NSO and the extra NSO. This led to corrective actions not being performed in a timely manner and these actions were not adequate in ensuring the action requirements were met within the one hour time frame.

An o-ring on the 0PR32J skid gas channel detector plug was found to be brittle and not making the required seal to atmosphere. This allowed leakage to the atmosphere and produced a low flow condition within the skid.

D. SAFETY ANALYSIS:

This event had no effect on the safety of the plant or the public. The radiation monitor that failed senses the minimum outside air intake for the A Train of the VC system. There are two redundant radiation monitors in the minimum outside air intake for both trains of Control Room Ventilation. Plant safety was not effected during this event because the redundant radiation monitor remained operable and was capable of realigning the VC system if a high radiation level was detected on the 0A VC Train. Public safety was not effected because the VC system does not exhaust air to the atmosphere, therefore there was no chance of an unmonitored release from the VC system.

E. CORRECTIVE ACTIONS:

Personnel involved in the event were counseled concerning their performance relating to the event and management's expectations regarding teamwork, standards, and a questioning attitude.

Each operating crew was briefed on the event.

Teamwork is being stressed during simulator training for Operating Department personnel. This is performed during briefs held prior to the simulator training and during the actual simulator training.

Licensed Operator training is being revised to include more team building. Training will include management's expectations that reactor operators and senior reactor operators are equally responsible in ensuring that the units are in compliance with Technical Specifications. This will be tracked to completion by NTS item #456-180-95-00901.

F. PREVIOUS OCCURRENCES:

There have been two similar incidents of failure to meet LCOAR action requirements due to personnel error at Braidwood Station in the past:

On April 19, 1993, Unit 2 was in Mode 5. Two NSOs performed the task of blocking the Source Range (SR) monitors in tandem. The two NSOs did not clearly communicate their actions to each other. One of the NSOs informed a third, oncoming NSO of the blocking of the SR monitors. The oncoming NSO was given an inaccurate turnover of the SR monitor status. A LCOAR was entered for having the SR monitors blocked. Later, when unblocking the SR monitors, the second NSO unblocked the "Hi Flux at Shutdown" alarm and reset the "Boron Dilution Prevention System" (BDPS) but failed to unblock the "Source Level Hi Reactor Trip" function. The NSO was not aware that the latter function had been blocked. The NSO then exited the LCOAR based on this action. Approximately eight hours later, the blocked trip was identified and unblocked. The cause of this event was personnel error and procedural deficiency. Corrective actions included counseling of the individuals involved, and the development of a procedure for properly blocking the SR monitors.

On August 10, 1995 surveillance 0BwOS 7.6.B-1 was in progress on the 0A VC makeup filter train with the charcoal absorber in bypass. At 0845 the RM-11 alarmed for the 0RE-PR032B. The NSO reported this alarm to the Unit Supervisor precipitating a discussion concerning the status of LCOAR 3.3.1-1a for the 0PR32J calibration. After completing a current task, the Unit Supervisor determined that the LCOAR in question had been exited and entered the LCOAR 3.3.1-1a. This was reported to the Shift Engineer at 0915. The Unit Supervisor determined the action requirements were met by the 0A VC train being in the makeup mode per the surveillance in progress.

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Braidwood 1	05000456	95	-- 009 --	00	6 OF 6

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At 0950 the Unit Supervisor recognized that with the charcoal absorber in bypass it was questionable if the action requirements were being met. The Unit Supervisor informed the Shift Engineer and a discussion between the Shift Engineer and both Unit Supervisors determined the 0B VC train needed to be placed in service to ensure meeting the action requirements. 0BwOS 7.6.b-1 was terminated and the 0B VC train was placed in service. Requirements of the one hour LCOAR were not met for 1 hour and 24 minutes. The cause of this event was personnel error and procedural deficiency. Corrective actions included counseling of personnel involved and procedural changes.

G. COMPONENT FAILURE DATA:

MANUFACTURER	NOMENCLATURE	MODEL	MFG PART NO.
GA Technologies Inc.	O-Ring	N/A	50008228-001