LICENSEE EVENT REPORT

CONTROL BLOCK [ ] (1–6) (PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME	LICENSE NUMBER	LICENSE TYPE	EVENT TYPE
0 1 N J O C P 1 (7–14)	0 0 – 0 0 0 0 0 – 0 0 (15–25)	4 1 1 1 1 (26–30)	0 1 (31–32)

CON'T	CATEGORY	REPORT TYPE	REPORT SOURCE	DOCKET NUMBER	EVENT DATE	REPORT DATE
0 1 (7–8)	(57–58)	T (59)	L (60)	0 5 0 – 0 2 1 9 (61–68)	0 7 0 1 7 6 (69–74)	0 7 1 4 7 6 (75–80)

EVENT DESCRIPTION

The oxygen concentration in the torus was permitted to reach an indicated level of 5.4% which exceeded the Technical Specification limit by 0.4%. Steps were initiated immediately to purge the torus to less than 5% oxygen. (50-219/76-17-1P)

SYSTEM CODE	CAUSE CODE	COMPONENT CODE	PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER	VIOLATION
S B (10)	A (11)	X X X X X X (12–17)	0 (43)	X 9 9 9 (44–47)	Y (48)

CAUSE DESCRIPTION

The event was due to the erratic behavior of the torus oxygen analyzer following calibration. The erratic operation was amplified by a gas sample flow adjustment which caused the indicated oxygen level to drop to 2%. The true oxygen level in the torus was discovered 9 hours later when the analyzer was recalibrated.

FACILITY STATUS	% POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION
E (9)	0 9 2 (10–12)	NA (13–44)	B (45)	Calibration of Torus Oxygen Analyzer (46–80)

FORM OF ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY	LOCATION OF RELEASE
Z (9)	Z (10)	NA (11–44)	NA (45–80)

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION
0 0 0 (9–11)	Z (12)	NA (13–80)

PERSONNEL INJURIES

NUMBER	DESCRIPTION
0 0 0 (9–11)	NA (12–80)

Probable Consequences

NA

LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION
Z (9)	NA (10–80)

PUBLICITY

NA

ADDITIONAL FACTORS - Cause Description - Continued

the torus was discovered 9 hours later when the analyzer was recalibrated.

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MEMBER OF THE General GPU ELECTRIC POWER COMPANIES Public Utilities Corporation SYSTEM

OYSTER CREEK NUCLEAR GENERATING STATION
Forked River, New Jersey 08731

Licensee Event Report
Reportable Occurrence No. 50-219/76-17-1P

Report Date

July 14, 1976

Occurrence Date

July 1, 1976

Identification of Occurrence

Violation of the Technical Specifications, paragraph 3.5.A.5, when the indicated oxygen concentration in the torus exceed the 5% limit. This event is considered to be a reportable occurrence as defined in the Technical Specifications, paragraph 6.9.2.a.2.

Conditions Prior to Occurrence

The major plant parameters at the time of the occurrence were as follows:

Power:	Reactor, 1768 MWt
	Generator, 585 MWe (g)
Flow:	Recirculation, 58.5 x 10^6 lb/hr
	Feedwater, 6.58 x 10^6 lb/hr
Stack Gas:	9500 μci/sec

Description of Occurrence

On Thursday, July 1, 1976, at approximately 0930 hours, following a calibration of the torus oxygen analyzer, it was observed that the torus oxygen concentration as indicated by the analyzer was 5.4%. Steps were initiated immediately to purge the torus to less than 5% and by 1130 hours, the oxygen concentration was reduced to 4.5%. The sequence of events which led to the violation were as follows:

On Wednesday, June 30, 1976, on the 4 to 12 midnight shift, the torus oxygen analyzer failed down scale. Maintenance personnel were contacted and the analyzer was repaired, calibrated and returned to service. On the 12 midnight

to 8 shift, the torus oxygen analyzer began to behave erratically. The Group Shift Supervisor on duty at the time made an adjustment in the gas sample flow rate in an effort to correct the erratic behavior. The flow adjustment caused a change in the calibration of the analyzer and amplified its erratic behavior. The calibration change caused the indicated oxygen concentration to drop to the 2% level. It remained at this level for a nine hour period until 0930 of the 8 a.m. to 4 p.m. shift when another calibration was performed which revealed the high 0_2 concentration.

Apparent Cause of Occurrence

Because of the change in sample flow and the subsequent distorted analyzer operation, the slow ascent over the 5% oxygen limit was not realized.

Analysis of Occurrence

Containment inerting requirements are based upon assumed zirconium metal/water reactions producing hydrogen gas in the containment during a design bases loss of coolant accident. It is postulated that by maintaining less than 5% oxygen in the containment, an explosive mixture of oxygen and hydrogen will not result. The safety significance of this event is considered minimal since any hydrogen produced would be released into the drywell atmosphere which at the time of the occurrence was .3% 0_2. Since during a design bases LOCA all the drywell gases are forced into the torus, an oxygen concentration less than 5% would have resulted in the torus shortly after the start of the LOCA.

Corrective Action

On July 1, 1976, the torus atmosphere was purged with nitgogen until the analyzer indicated a concentration of 3.8%. Periodic torus purging will be continued to maintain acceptable oxygen concentration. The torus 0_2 analyzer was calibrated and returned to service. In addition, the drywell 0_2 analyzer was temporarily connected to the torus sample flow as a cross check with the torus 0_2 analyzer, and both analyzers were in close agreement. A grab sample was obtained and sent to an independent laboratory for analysis. The laboratory analysis indicated correct analyzer calibration. To prevent recurrence, the following recommendations will be put into effect: (1) a caution tag will be affixed to the oxygen analyzer cautioning against changes in sample flow rate; and (2) operation of the analyzer will be reviewed in the Operator Training Program.

Failure Data

N/A