

CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9910060343 DOC. DATE: 99/09/27 NOTARIZED: NO DOCKET #
 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moho 05000410
 AUTH. NAME AUTHOR AFFILIATION
 WILLIS, D. Niagara Mohawk Power Corp.
 PALEOLOGOS, N. Niagara Mohawk Power Corp.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 99-017-00: on 990902, drywell floor equipment drain tank fill rate monitoring sts were inoperable. Caused by equipment failure. Replaced & calibrated input analog module. With 990927 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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Niagara  Mohawk

September 27, 1999
NMP2L 1899

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Docket No. 50-410
LER 99-17

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i), we are submitting LER 99-17, "Drywell Floor and Equipment Drain Tank Fill Rate Monitoring Systems Inoperable Due to Equipment Failure."

Very truly yours,

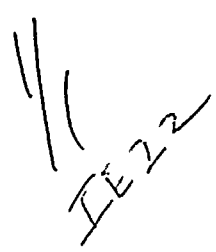


Nick Paleologos
Plant Manager - NMP2

NCP/CES/kap
Attachment

xc: Mr. H. J. Miller, Regional Administrator, Region I
Mr. G. K. Hunegs, NRC Senior Resident Inspector
Records Management

9910060343 990927
PDR ADOCK 05000410
S PDR





LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

FACILITY NAME (1)

Nine Mile Point Unit 2

DOCKET NUMBER (2)

05000410

PAGE (3)

01 OF 04

TITLE (4)

Drywell Floor and Equipment Drain Tank Fill Rate Monitoring Systems Inoperable Due to 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 NAMES	DOCKET NUMBER(S)	
09	02	99	99	017	00	09	27	99	N/A		
									N/A		

OPERATING MODE (9)

1

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

POWER LEVEL (10) 100%	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 73.71
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	(Specify in Abstract below and in Text, NRC Form 365A)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

Demetrius Willis - Manager Maintenance

TELEPHONE NUMBER

(315) 349-7035

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPD	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPD
X	U	IMOD	AEG-MODICON	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)

NO

EXPECTED SUBMISSION DATE (15)

MONTH

DAY

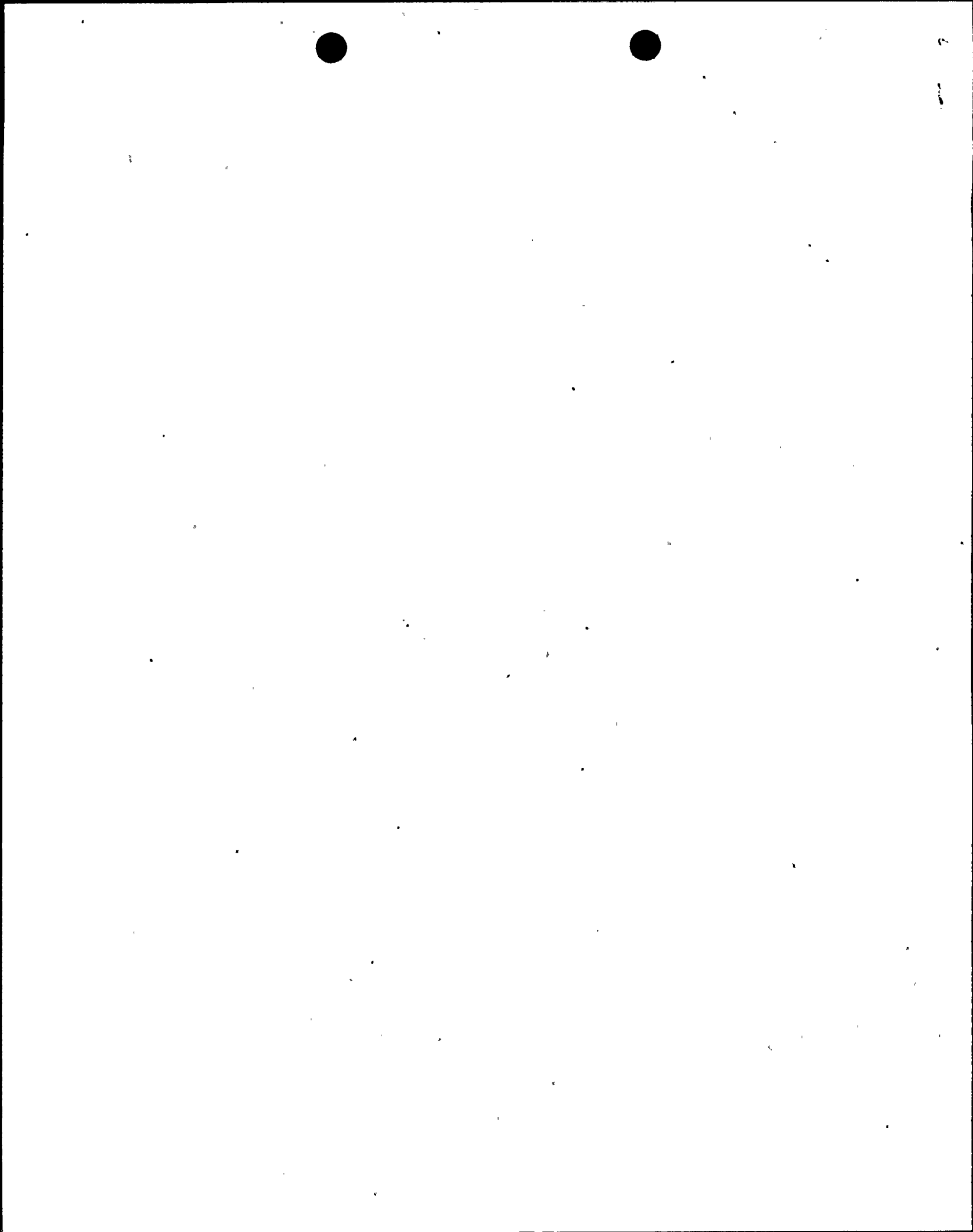
YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

On September 2, 1999, while at 100 percent power, Nine Mile point Unit 2 operators identified that the drywell floor and equipment drain tank fill rate monitoring systems were inoperable due to recorder spiking and entered Technical Specification 3.4.3.1 (24-hour shutdown action statement). Due to the short duration of the action statement, Niagara Mohawk Power Corporation requested and was granted enforcement discretion that allowed additional time to return the drywell floor and equipment drain tank fill rate monitoring systems to an operable status. Based on the enforcement discretion, the action statement for Technical Specification 3.4.3.1 was not met.

The cause of the drywell floor and equipment drain tank fill rate monitoring system recorder spiking was a failure of the input analog module of the programmable controller which is common to both systems.

Corrective actions include: replacing and calibrating the input analog module, monitoring the new input analog module for a twelve-hour period, and performing a failure analysis on the failed input analog module. Additional corrective actions based on the results of the failure analysis will be developed, if appropriate.



LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 30.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Nine Mile Point Unit 2	05000410	99	17	00		02 OF 04

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

I. DESCRIPTION OF EVENT

On September 2, 1999, while at 100 percent power, Nine Mile Point Unit 2 operators identified that the drywell floor and equipment drain tank fill rate monitoring systems were inoperable due to the recorders spiking.

Technical Specification 3.4.3.1, Action Statement d was entered. Technical Specification 3.4.3.1, Action Statement d, requires that with both drywell floor and equipment drain tank fill rate monitoring systems inoperable, restore either system to operable status within 24-hours or be in hot shutdown within the next 12-hours, and in cold shutdown within the following 24-hours.

Niagara Mohawk Power Corporation (NMPC) determined that a common input analog module had failed. On September 3, NMPC requested enforcement discretion to delay the actions of Technical Specification 3.4.3.1, Action Statement d for an additional 24 hours. The Nuclear Regulatory Commission granted enforcement discretion on September 3. After the new input analog module was installed, calibrated, and monitored for a twelve-hour period, the drywell floor and equipment drain tank fill rate monitoring systems were declared operable on September 4. The total out-of-service time was 31 hours and 35 minutes.

NMPC completed the review of the deviation/event reports and maintenance word orders as described in the NMPC letter requesting enforcement discretion dated September 3, 1999, and found one related deviation/event report. Deviation/Event Report 2-1999-2776 was written on August 24, 1999, to address a drywell floor drain leak rate high alarm that annunciated while the pump was lowering the tank level. The cause of the alarm is unknown due to the alarm resetting before troubleshooting could be started.

II. CAUSE OF EVENT

The cause of the drywell floor and equipment drain tank fill rate monitoring system recorders spiking was a failure of an input analog module of the programmable controller which is common to both systems. The input analog module was sent to the manufacturer to determine why the module failed.

III. ANALYSIS OF EVENT

This event is considered reportable under 10 CFR 50.73(a)(2)(i), "Any operation or condition prohibited by the plant's Technical Specifications."

There are a number of systems that monitor and detect leakage from the reactor coolant pressure boundary within primary containment. These systems include: the primary containment airborne particulate radioactivity monitoring system, the primary containment airborne gaseous radioactivity monitoring system, the drywell floor drain tank fill rate monitoring system, and the drywell equipment drain tank fill rate monitoring system.



LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 30.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-330), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Nine Mile Point Unit 2	05000410	99	- 17	- 00	03 OF 04

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

III. ANALYSIS OF EVENT (Cont'd)

NMPC determined that the drywell floor and equipment drain tank fill rate monitoring systems, with the exception of the control room indicators and alarms, were capable of performing their intended safety function. Compensatory actions, in accordance with plant procedures, included recording instrumentation sensor data from the drywell floor and equipment drain tank fill rate monitoring systems and calculating fill rate data. This action was performed at a 4-hour frequency.

The primary containment airborne particulate and the primary containment airborne gaseous systems remained operable for the duration of this event. Even though these systems cannot quantify leakage rates, the systems can detect a sudden increase of radioactivity and are sensitive enough to indicate increased leakage rates of 1 gpm within an hour. Larger changes in leakage rates are detected in proportionally shorter times.

The Improved Standard Technical Specifications Limiting Condition for Operation 3.4.7, titled "RCS [Reactor Coolant System] Leakage Detection Instrumentation" (considering Nine Mile Point Unit 2 plant specific design), requires the drywell floor drain tank fill rate monitoring system and one channel of either the drywell atmospheric particulate or atmospheric gaseous radiation monitoring system to be operable. This Limiting Condition for Operation does not contain any operability requirements for the equipment drain tank fill rate monitoring system. If the required radiation monitoring channel is operable but the required floor drain tank fill rate monitoring system is inoperable, the Improved Standard Technical Specifications Limiting Condition for Operation 3.4.7, Condition A, requires the restoration of the floor drain tank fill rate monitoring system operability within 30 days. Otherwise the plant would be required to be in Mode 3 in 12 hours, and Mode 4 in 36 hours. Nine Mile Point Unit 2 is currently in the process of converting to the Improved Standard Technical Specifications.

The probabilistic risk assessment model does not model the drywell floor and equipment drain tank fill rate monitoring systems with respect to leak before break or loss-of-coolant accident frequency. An analysis was performed that postulated a tenfold increase in the total loss-of-coolant accident frequency from $9.7E-7$ /year to $9.7E-6$ /year. This is a relatively small increase over the baseline core damage frequency of $5.4E-5$ /year. Based on this, the out of service time could be extended and would still be non-risk significant.

Based on the facts listed above, the failure of the drywell floor and equipment drain tank fill rate monitoring systems did not adversely affect the health and safety of the general public or plant personnel.



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LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION. REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (0150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Nine Mile Point Unit 2	05000410	99	17	00	04 OF 04

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

IV. CORRECTIVE ACTIONS

- The input analog module was replaced, calibrated, and monitored satisfactorily for a twelve-hour period.
- The failed input analog module was sent to the manufacturer for failure analysis, which is scheduled to be completed by November 15, 1999.
- After the manufacturer completes the failure analysis, and if appropriate, NMPC will develop additional corrective actions based on the results of this failure analysis by November 30, 1999.

V. ADDITIONAL INFORMATION**A. Failed components:**

The input analog module for the drywell floor and equipment drain tank fill rate monitoring systems failed on September 2, 1999, during full power operation.

B. Previous similar events: none.**C. Identification of components referred to in this Licensee Event Report:**

Components	IEEE 803A Function	IEEE 805 System ID
Primary Containment Airborne Particulate Radioactivity Monitoring System	MON	IJ
Primary Containment Airborne Gaseous Radioactivity Monitoring System	MON	IJ
Drywell Floor Drain Tank Fill Rate Monitoring System	MON	IJ
Input Analog Module	IMOD	IJ
Drywell Equipment Drain Tank Fill Rate Monitoring System	MON	IJ
Recorders	FR	IJ
Control Room Indicators	TI, PI	IB
Control Room Alarms	LA	IB, IJ

