

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8803010337 DOC.DATE: 88/02/25 NOTARIZED: NO DOCKET #  
 FACIL:50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha 05000410  
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 LEMPGES,T.E. Niagara Mohawk Power Corp.  
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-005-00: on 880126, noncompliance w/Tech Specs & 10CFR50.73 due to motor failure & failure to submit LER. R  
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ltr.

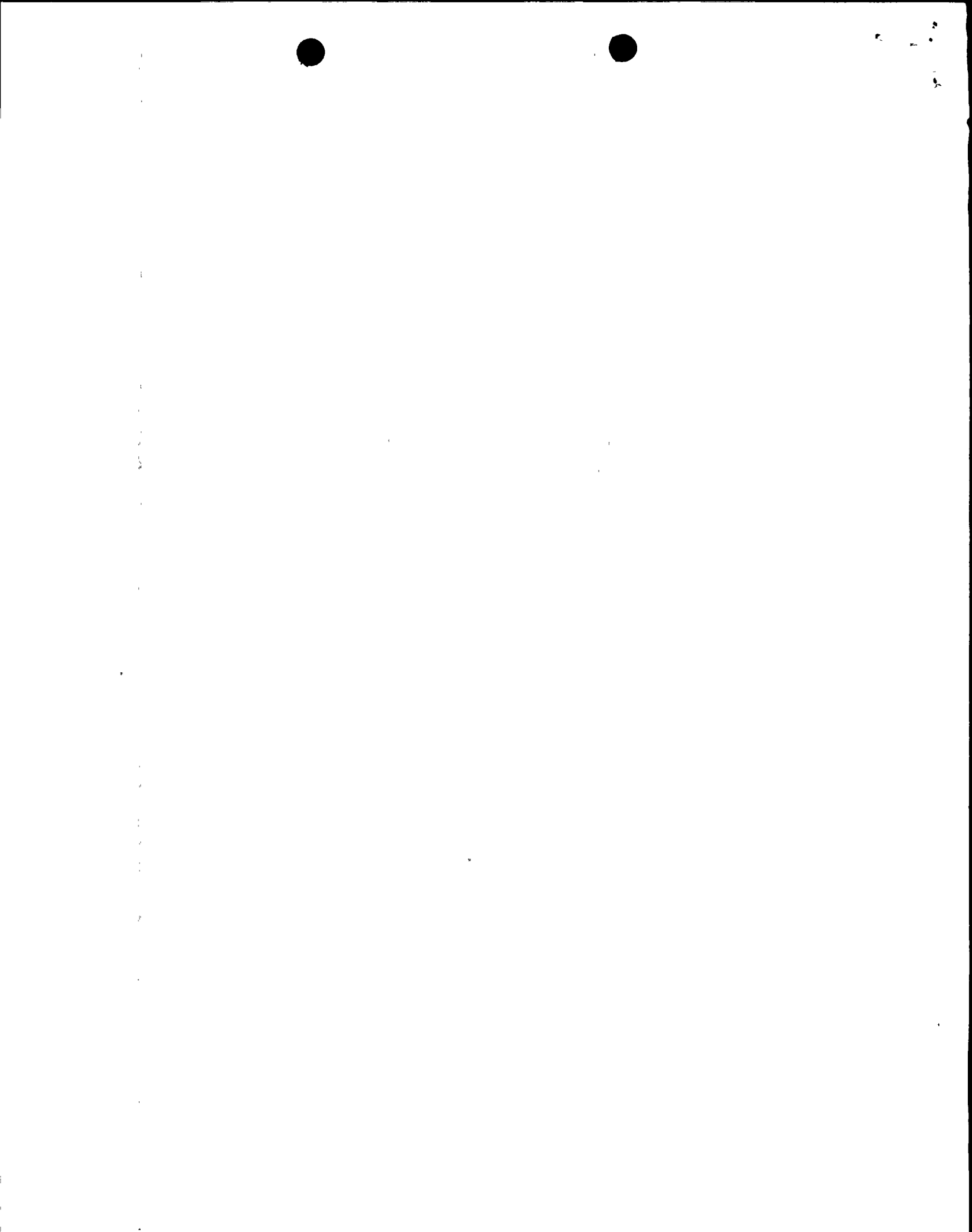
DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 7 D  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 21 05000410 S

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	<del>REG FILE</del> 02	1 1	RES TELFORD, J	1 1	
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EXTERNAL:	EG&G GROH, M	5 5	FORD BLDG HOY, A	1 1	R
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	NSIC MAYS, G	1 1			S

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Nine Mile Point Unit 2						DOCKET NUMBER (2) 0 5 0 0 0 4 1 0			PAGE (3) 1 OF 06		
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TITLE (4) Non-Compliance with Technical Specifications (TS) and with 10CFR50.73 due to Motor Failure and Failure to Submit an LER - Improper Maintenance/Incorrect TS Interpretation

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		
									N/A		
01	26	88	88	005	00	02	25	88	N/A		
OPERATING MODE (9) 4			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)								

POWER LEVEL (10) 000	20.402(b)	20.406(e)	50.73(a)(2)(iv)	73.71(b)
	20.406(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
	20.406(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Robert E. Jenkins, Assistant Supervisor Technical Support	AREA CODE 315 349-4220

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
B	IL	MO	G080	N					
X	IL	MO	G080	N					

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 January, 26, 1988 with the reactor in Cold Shutdown (Operational Condition 4), the Nine Mile Point Unit 2 Chemistry Department reported two incidents (which occurred on November 17, 1987 and on January 12, 1988) where the auxiliary sampling equipment for the Gaseous Effluent Monitoring Systems (GEMS) were inoperable. These incidents constituted a non-compliance with Technical Specification (TS) Section 3.3.7.10. Additionally, these incidents were not reported via 10CFR50.73(a)(2)(i)(B) in a timely manner.

The root causes for these events are; (1) improper equipment maintenance, and (2) an incorrect interpretation of TS Section 3.3.7.10 Action Statement 138.

The corrective actions for these events are:

1. The discharge filter for the auxiliary sampling pumps is being cleaned or replaced on a weekly basis.
2. A Problem Report has been submitted requesting an evaluation of the GEMS auxiliary sampling equipment.
3. A Lessons Learned document has been prepared and will be included in the Chemistry Department's Lessons Learned book.

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		88	005	00	02	OF	06

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

I. DESCRIPTION OF EVENT

On January 26, 1988 at 1400 with the reactor in Cold Shutdown (Operational Condition 4), at a temperature of approximately 120 degrees Fahrenheit and at ambient pressure, the Nine Mile Point Unit 2 (NMP2) Chemistry Department reported two incidents where the auxiliary Particulate/Iodine (PI) sampling equipment for the Gaseous Effluent Monitoring Systems (GEMS) were temporarily inoperable. These incidents occurred on November 17, 1987 and on January 12, 1988 respectively.

The November 17, 1987 event involved the auxiliary sampling equipment for the Main Stack GEMS system (2RMS-CAB170). In this event, a Chemistry technician discovered the auxiliary sampling pump had tripped on a motor overload. This discovery was made at 0500 while the technician was performing a regular (every four hours) flow surveillance on the auxiliary sampling equipment. (The surveillance performed at 0100 on November 17, 1987 did verify that the pump was operable at that time.) The failed pump was replaced and the system was restored to an operable status by 0700 that same day.

It can not be determined exactly how long the auxiliary equipment was out of service between 0100 and 0700 on November 17, 1987; however, the maximum duration this equipment could have been inoperable is 6 hours.

The January 12, 1988 event involved a failure of the auxiliary sampling pump for the Radwaste/Reactor Building Vent GEMS system (2RMS-CAB180). At 0945 that day, the auxiliary sampling pump was shut down by a Chemistry Technician so he could replace the PI sample filter (this is done in accordance with TS Table 4.11.2-1). Upon completion of this task, the technician attempted to restart the pump but the pump failed to start; the pump motor had blown a fuse. The fuse was replaced and the auxiliary sampling equipment was successfully placed back into service by 1145 that same day. The duration for this event was two hours.

The auxiliary PI sampling equipment is required to be continuously operable whenever the associated GEMS system is inoperable per NMP2 Technical Specification (TS) Section 3.3.7.10 Action Statement 138. Therefore, in these two incidents where the auxiliary pumps were inoperable, NMP2 was not in compliance with that TS Action Statement.



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TEXT (If more space is required, use additional NRC Form 306A's) (17)

NMP2 was also not in compliance with 10CFR50.73(a)(2)(i)(B) because a Licensee Event Report (LER) was not issued within 30 days of the event date for these incidents. However, these incidents were not identified as potential reportable events until January 26, 1988.

The incidents were identified as potential reportable events by a Niagara Mohawk (NMPC) Technical Support Engineer during an investigation he was conducting for NMP2 LER 87-84. He contacted the NMP2 Chemistry department and informed them that these events should be reported on Occurrence Reports which were subsequently written. Evaluation of the Occurrence Reports by NMP2 management confirmed that these events were reportable.

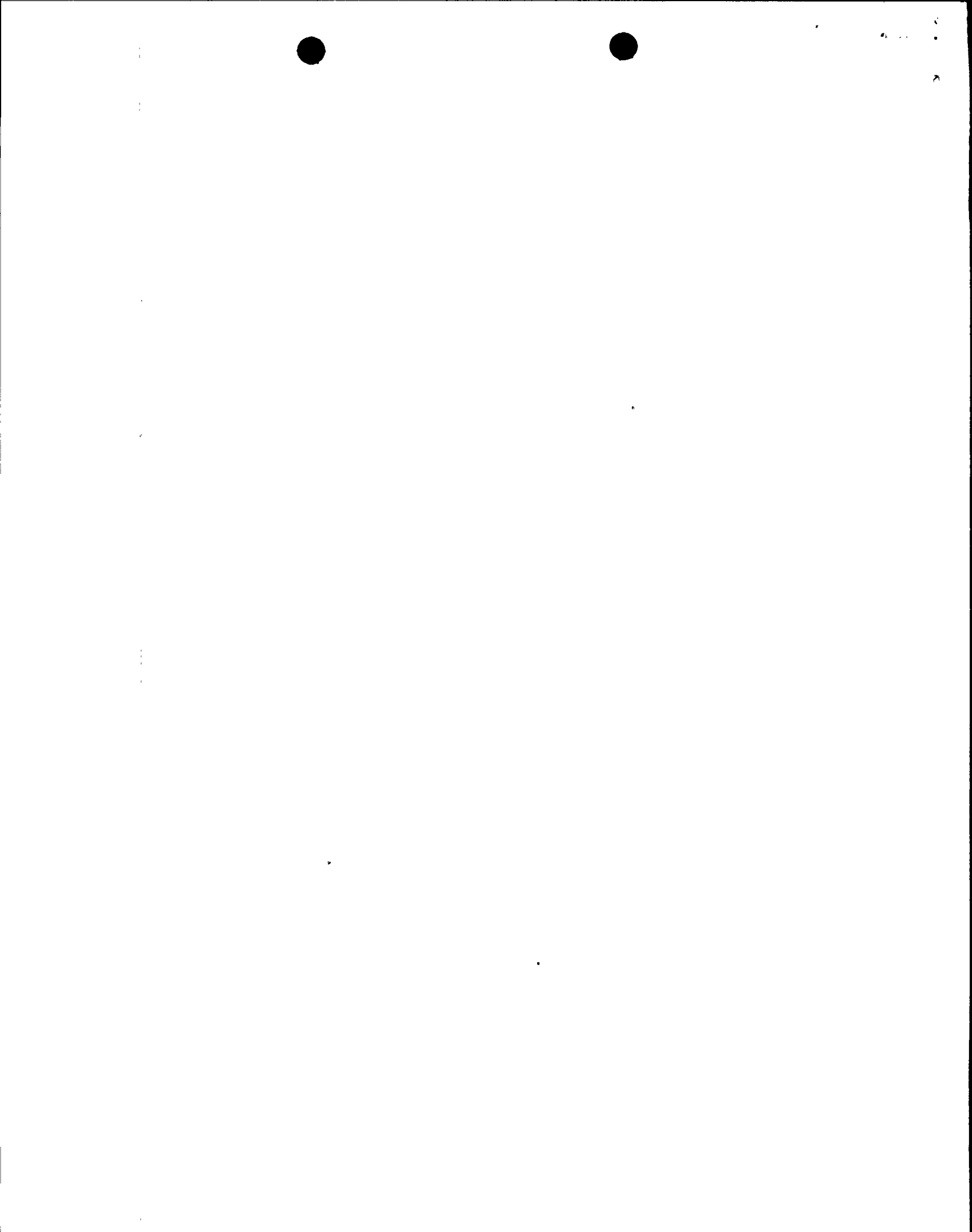
There were no other inoperable systems which contributed to these events. No plant system or component failure (other than the incidents discussed) resulted from these events.

II. CAUSE OF EVENT

The root cause for the auxiliary sampling pump failure, which occurred on November 17, 1987, is improper pump maintenance. The auxiliary pump for 2RMS-CAB170 failed on a motor overload due to a clogged discharge filter. The type of pump used in the auxiliary PI sampling rig is a self lubricating unit utilizing carbon vanes. During pump operation the carbon vanes wear, releasing carbon particles into the pump discharge, which are trapped by the pump's discharge filter. To prevent possible motor overloads, the pump vendor recommends periodic filter cleaning or replacement.

In this incident however, the pump for 2RMS-CAB170 ran continuously for approximately 54 days without having the discharge filter cleaned or replaced. As a result the discharge filter became dirty which restricted air flow and caused the pump to trip on a motor overload. If periodic maintenance had been performed on the pump discharge filter, this event could have been avoided.

The root cause for the January 12, 1988 pump failure can not be determined. However, it was observed that the pump motor for 2RMS-CAB180 runs very hot and draws a current approximately 10% greater than its normal rating (during normal operation in its present duty). (These observations indicate that there may be long term reliability concerns for this equipment.) Therefore, it is surmised, when the pump was restarted after being briefly shutdown for routine maintenance (replacement of the PI filter), the startup current for the hot motor caused its fuse to blow.





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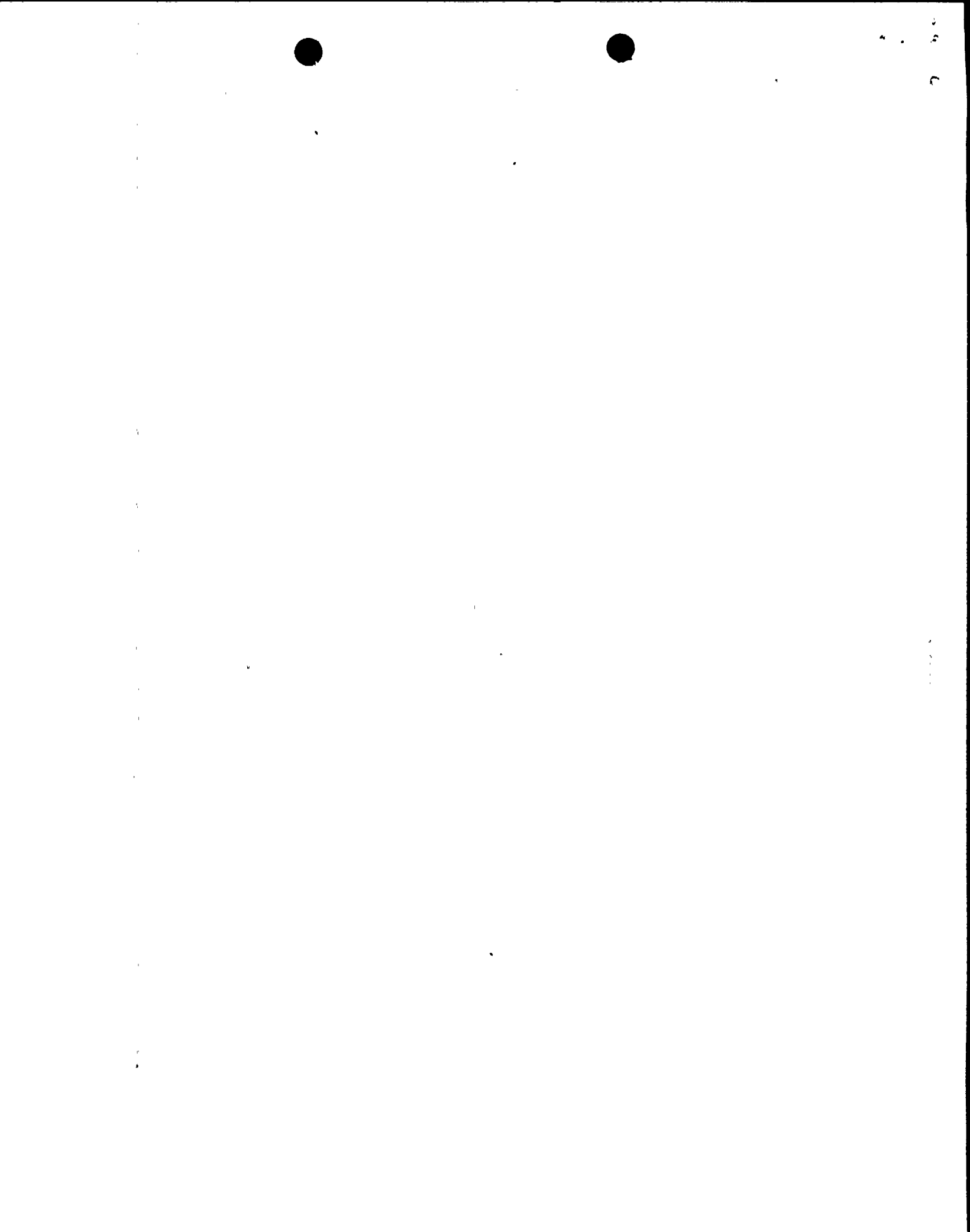
As discussed in the "Description of Event" section of this report, an LER was not submitted within the 30 day time period required by 10CFR50.73(a)(2)(i)(B) for either of the two events. The root cause for this non-compliance with 10CFR50.73(a)(2)(i)(B) is an improper interpretation of the NMP2 Technical Specifications.

TS Section 3.3.7.10 Action Statement 138 states:

With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided samples are continuously collected starting within 8 hours of discovery, using auxiliary sampling equipment as required in Table 4.11.2-1.

This TS action statement provides an 8 hour "grace" period to get the auxiliary sampling equipment in operation whenever the associated GEMS system is declared inoperable. However, the NMP2 Chemistry Department incorrectly interpreted that the 8 hour grace period was also applicable to the auxiliary sampling equipment. Specifically, it was interpreted if the auxiliary sampling equipment became inoperable, the TS action statement would have allowed an 8 hour grace period to get that equipment back in operation (or another auxiliary system in operation) before a TS non-compliance occurred. Since neither one of the events discussed in this report exceeded this 8 hour grace period, the NMP2 Chemistry supervision determined that these events were not reportable via the NMP2 Occurrence Report process. Thus, these events were not reported in a timely manner.

Since the 8 hour grace period is not considered to apply to the auxiliary sampling equipment, any time this equipment is inoperable (other than for routine maintenance or surveillance) NMP2 is not in compliance with TS Section 3.3.7.10. Had this been the interpretation of TS Section 3.3.7.10, an Occurrence Report would have been immediately initiated for each event. This action would have initiated a timely administrative review of these events for reportability requirements, which could have avoided a non-compliance with 10CFR50.73(a)(2)(i)(B).



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

III. ANALYSIS OF EVENT

These events are considered reportable via 10CFR50.73(a)(2)(i)(B) because the auxiliary sampling equipment (for either GEMS system) was not continuously operable as required by NMP2 TS Section 3.3.7.10 Action Statement 138. Therefore, NMP2 was not in compliance with TS Section 3.3.7.10.

The maximum duration that the auxiliary sampling equipment was inoperable for the November 17, 1987 and January 12, 1988 events, was six and two hours respectively. Had an abnormal release occurred through the Main Stack or the Radwaste/Reactor Building (RW/RB) vent during the time the equipment (for the associated release path) was inoperable, the particulate activity and the Iodine-131 concentration of the effluent stream would not have been sampled. Therefore, the quantity of particulates and Iodine released could not have been directly determined. However, a review of other operating parameters and radiation monitors would have allowed an estimate of the particulate activity and Iodine concentration.

Since there was not an abnormal release (via the Main Stack or RW/RB vent) during any of the times the auxiliary sampling equipment was inoperable, we can state with confidence that the particulate activity level and Iodine concentrations exhausting via the Main Stack and the RW/RB Vent were well within TS levels.

IV. CORRECTIVE ACTIONS

- To address the concerns of the auxiliary sampling pump inoperability due to clogged discharge filters, these filters are now inspected and cleaned (or replaced) on a weekly basis. This corrective action was implemented after the November 17, 1987 incident.
- A Problem Report (PR #7703) has been submitted requesting an Engineering review of the current auxiliary sampling equipment design. This review will evaluate and will suggest any necessary changes to the present design to maximize equipment reliability. The anticipated completion date for this review is March 15, 1988.
- A Lessons Learned document has been prepared discussing the importance of reporting potential non-compliances with TS Section 3.3.7.10 on an Occurrence Report. This document will be included in the NMP2 Chemistry Department's Lessons Learned book by March 15, 1988.

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V. ADDITIONAL INFORMATION

LER 87-56 discusses the event resulting in the Main Stack and Radwaste/Reactor Building Vent GEMS systems being declared inoperable. The auxiliary sampling systems that failed (as discussed in this report) were placed into service as a result of that previous event. Therefore, the events discussed in this report and in LER 87-56 are considered to be related.

LER 87-84 also discusses an incident where the GEMS auxiliary sampling pump motor had failed due to a motor overload. However, that incident was a result of a blocked discharge line and is not related to the events discussed in this report.

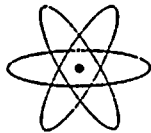
No other NMP2 LERs cover events similar to that discussed in this report.

Failed component identification: General Electric AC Motor Model SKH35GN106CX

Identification of Components Referred to in this LER

Component	IEEE 803 EIIS Funct	IEEE 805 System ID
Main Stack	N/A	VL
Reactor Building Vent	VLR	VL
Gaseous Effluent Monitoring System	N/A	IL
Pump	P	IL
Motor	MO	IL
Particulate/Iodine Filter	FLT	IL
Pump Discharge Filter	FLT	IL
Fuse	FU	IL
Discharge Line (Tubing)	TBG	IL





NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

301 PLAINFIELD ROAD  
SYRACUSE, NY 13212

THOMAS E. LEMPGES  
VICE PRESIDENT—NUCLEAR GENERATION

February 25, 1988

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

RE: Docket No. 50-410  
LER 88-05

Gentlemen:

In accordance with 10 CFR 50.73, we hereby submit the following  
Licensee Event Report:

LER 88-05 Which is being submitted in accordance with 10 CFR 50.73  
(a) (2) (i) (B), "Any operation or condition prohibited  
by the plant's Technical Specifications."

A voluntary telephone call was made to the Nuclear Regulatory  
Commission Operations Center via the Emergency Notification System at 1400  
hours on January 26, 1988.

This report was completed in the format designated in NUREG-1022,  
Supplement No. 2, dated September 1985.

Very truly yours,

Thomas E. Lempges  
Vice President  
Nuclear Generation

TEL/POB/mjd

Attachments

cc: Regional Administrator, Region 1  
Sr. Resident Inspector, W. A. Cook

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