

PRIORITY 1
(ACCELERATED RIDS PROCESSING)

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9407070328 DOC. DATE: 94/07/01 NOTARIZED: NO DOCKET #
 FACIL: 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
 AUTH. NAME AUTHOR AFFILIATION
 MOREY, D.O. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 BLIND, A.A. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 94-003-00: on 940421, continuous radiation monitor
 SRA 2905 declared inoperable due to condensation buildup in
 sample process lines. Sample plugs reinstalled prior to
 pulling subsequent samples. W/940701 ltr.

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 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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Indiana Michigan
Power Company
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
616 465 5901



July 1, 1994

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852

Operating Licenses DPR-74
Docket No. 50-316

Document Control Manager:

In accordance with the criteria established by
10 CFR 50.73 entitled Licensee Event Report System,
the following report is being submitted:

94-003-00

Sincerely,



A. A. Blind
Plant Manager

/sb
Attachment

c: J. B. Martin, Region III
E. E. Fitzpatrick
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NRC Resident Inspector
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LICENSEE EVENT REPORT (LER)

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

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 (MN88 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.

FACILITY NAME (1) D. C. Cook Nuclear Plant - Unit 2		DOCKET NUMBER (2) 05000 316	PAGE (3) 1 OF 3
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TITLE (4)
Compensatory Samples Invalid Due to Equipment Configuration

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	23	94	94	003	00	07	01	94	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9) 2	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
POWER LEVEL (10) <5%		<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
		<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> OTHER
		<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)
		<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
		<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME D. O. Morey - Chemistry Superintendent	TELEPHONE NUMBER (include Area Code) (616) 465-5901
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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

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

At 0845 on April 21, 1994, during the startup of Unit Two, the continuous Radiation Monitor (IL) SRA 2905 for the Steam Jet Air Ejector (SJAE) vent was declared inoperable due to condensation buildup in the sample process lines. To facilitate its dry out, the sample plugs were removed from the SRA 2900 sample wells. During the time period when the plugs were not installed, three compensatory samples were taken at the SPING unit. The system is configured with the sample point upstream of both the sample wells and the sample pump, therefore the technician was sampling the system at a point where no flow existed. It was determined on June 1, 1994, that Technical Specification 3.3.3.10, Table 3.3-13 requirements for compensatory sampling were not met due to the configuration of the system at the time the samples were taken.

The root cause of the event was ineffective administrative controls concerning the status of the SPING sampling capabilities during compensatory sampling. Contributing factors included lack of procedural guidance for the RP instrument group regarding activities that cause the SPING to be unavailable for grab sampling and a lack of training for the chemistry technicians and the RP Tech Spec technicians that removing the plugs would result in non-representative grab samples.

Corrective actions included reinstallation of the sample plugs prior to pulling subsequent samples. Radiation Protection will revise their SPING system procedure to ensure system integrity whenever compensatory sampling is in effect. Chemistry and RP will evaluate the training received by technicians on the SPING system. A minor modification to the SPING system is scheduled to be completed during the Unit Two 1994 refueling outage, which will alleviate the moisture problem. A similar modification has already been installed on Unit 1.

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-630), 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) D. C. Cook Nuclear Plant Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 1 6	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 4	— 0 0 3	— 0 0	0 2	OF	0 3

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

Conditions Prior to Occurrence:

Unit Two was in Mode Two at less than 5% power, escalating to full power operation.

Description of Event:

At 0845 on April 21, 1994, during the startup of Unit Two, the continuous Radiation Monitor SRA 2905 was declared inoperable due to condensation buildup in the sample process lines. To facilitate its dry out, the sample plugs were removed from the SRA 2900 sample wells, along with Radiation Monitor SRA 2905 to facilitate drying. The SRA 2905 radiation monitor is one channel of the SPING 2900 system for the Steam Jet Air Ejector (SJAЕ) Vent, which is comprised of multiple channels for monitoring noble gas activity in the condenser evacuation system.

During the time period when the plugs were not installed, three compensatory samples for SRA 2905 were taken at the SPING unit. Although the samples were taken within the 8 hours required by Technical Specifications, the results were invalid due to lack of process flow through the sample point.

It was determined on June 1, 1994, during the investigation of this event, that the Technical Specification 3.3.3.10, Table 3.3-13 requirements for compensatory sampling had not been met.

Procedural instructions for sampling require the technician to verify that the flow gauge at the SPING unit reads between 20 and 40 liters/minute. During this event the sample pump developed the required flow but with the sample plugs removed, the suction was from the Turbine Building atmosphere. The system is configured with the sample point upstream of both the sample wells and the sample pump, therefore the technician was sampling the system at a point where no flow existed. The flow gauge reading misled the technician into believing that flow existed throughout the system. With the sample wells open to the Turbine Building atmosphere, the actual flow path was through the open sample wells into the sample pump, all of which are physically downstream of the sample point which was in use.

Cause of Event:

The root cause of the event was ineffective administrative controls concerning the status of the SPING sampling capabilities during compensatory sampling. Contributing factors included lack of procedural guidance for the RP instrument group regarding activities that cause the SPING to be unavailable for grab sampling and a lack of training for the chemistry technicians and the RP Tech Spec technicians that removing the plugs would result in non-representative grab samples.

Analysis of Event:

This event is being reported in accordance with 10CFR50.73(a)(2)(1)(B) as operation prohibited by the plant's Technical Specifications. Technical Specification 3.3.3.10.b requires that with less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels operable, the actions shown in Table 3.3-13 must be taken for the instrumentation that is inoperable. Table 3.3-13 allows effluent releases via the pathway to continue for up to 30 days provided grab samples are taken at least once per 8 hours and analyzed for gross activity within 24 hours.

With Radiation Monitor (IL) SRA 2905 inoperable, compensatory samples were required to be taken to monitor the noble gas activity of the condenser evacuation system. On June 1, 1994, it was determined that the required compensatory samples were invalid.



LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 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) D. C. Cook Nuclear Plant Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 1 6	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 4	- 0 0 3	- 0 0	0 3	OF	0 3

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

The sample plugs were reinstalled prior to further samples being taken. Comparisons were made to previous Unit 2 data, as well as data from Unit 1 during its subsequent startup. Based on those comparisons, the activity results were below the limit specified. Therefore, this event did not represent a threat to the health and safety of the public.

Corrective Actions:

Corrective actions included reinstallation of the sample plugs prior to pulling subsequent samples.

Radiation Protection has revised 12 THP 6010 RPI.803, Operation of the Radiation Monitoring System, to ensure that system integrity is maintained whenever compensatory sampling is in effect. Requirements have also been inserted into the procedure requiring notification of the Radiation Protection Technical Specification group and the Chemistry Department whenever SPING system integrity is degraded.

RP and Chemistry will incorporate the improved SPING system training and a thorough review of this event into continuing and initial training programs.

Previous Similar Events:

- 316/91-003
- 316/93-002