

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Dresden Nuclear Power Station, Unit 2 DOCKET NUMBER (2) 0 5 | 0 0 | 0 2 | 3 7 PAGE (3) 1 OF 0 4

TITLE (4) Loss of the Unit 2/3 Main Chimney Sample Flow Due to Water Existing in the SPING Filters

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)
11	17	86	86	024	01	05	18	87	Dresden Unit 3		0 5 0 0 0 2 4 9
									N/A		0 5 0 0 0 0

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

OPERATING MODE (9) N	20.402(b)	20.406(a)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 17 4	20.406(a)(1)(i)	50.38(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME S. Merritt Telephone Number 8 1 5 | 9 4 2 | - 2 9 | 2 0
 Technical Staff Engineer (X-421) AREA CODE

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS
X	I L	F L T	G O 4 6	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO X

EXPECTED SUBMISSION DATE (15)

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

On 11/17/86 at 1545 hours, while Unit 2 was at 74 percent power and Unit 3 was at 87 percent power, it was discovered that the Unit 2/3 main chimney Separate Particulate Iodine and Noble Gas (SPING) sampler had experienced a loss of flow condition at approximately 1040 hours. Also, the Unit 2/3 main chimney continuous particulate and iodine sample was not collected from 1040 hours to 1545 hours (approximately 5 hours and 5 minutes) as required by Technical Specification Table 3.2.5. The alternate sample system (General Electric model) was manually started. The loss of flow condition was caused by water in the filters of the SPING and was not immediately known in the Control Room due to the SPING being inadvertently placed in the standby mode which prevented alarm annunciations.

As a corrective action: 1) The Radiation Chemistry Department investigated possible causes of the build-up of condensation in the filters, 2) a training inquiry was initiated to provide training on the SPING, and 3) a review of the event was performed to determine how the SPING was placed in the standby mode.

The safety significance of this event is considered to be minimal. Any change in the radiological condition of the plant would have been detected by other radiation level monitors which were operable at the time of this event.

A similar occurrence was reported on Reportable Occurrence 86-021 on Docket #050237.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Dresden Nuclear Power Station, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 3 7	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 7	— 0 2 4	— 0 1	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 388A's) (17)

PLANT AND SYSTEM IDENTIFICATION:

General Electric Boiling Water Reactor - 2527 MWt rated core thermal power. Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

EVENT IDENTIFICATION:

On 11/17/86 a loss of Unit 2/3 chimney sample flow event occurred due to water existing in the SPING filters. Upon investigating the cause of loss of flow, it was discovered that the SPING had been placed in the "Standby" mode.

A. CONDITIONS PRIOR TO EVENT:

Unit: 2/3 Event Date: 11/17/87 Event Time: 1040 hours
 Reactor Mode: N Mode Name: Run
 Power Level: Unit 2 - 74%; Unit 3 - 87%

B. DESCRIPTION OF EVENT:

On 11/17/86 at 1545 hours, while Unit 2 was at 74 percent power and Unit 3 was at 87 percent power, it was determined that the Unit 2/3 main chimney Separate Particulate Iodine and Noble Gas (SPING) sampler had experienced a loss of flow at approximately 1040 hours. Also, a Unit 2/3 main chimney continuous particulate and iodine sample [IL] was not collected from 1040 hours to 1545 hours, at which time the alternate sample system (supplied by General Electric) was manually started.

In accordance with the Center Desk Operator's Daily Surveillance Log Appendix B, the release rates for the Unit 2/3 Reactor Building vent stack, the Unit 1 and Unit 2/3 main chimneys are obtained from panel 923-7 once per shift per day.

At the beginning of the 1500 to 2300 hour shift on 11/17/86, a Reactor Operator discovered that the release rate for the Unit 2/3 main chimney indicated no flow while completing the surveillance log. The Radiation Chemistry Department was notified immediately. A Radiation Chemistry Technician (RCT) was dispatched to investigate the SPING sampler locally. The RCT was unable to determine the cause of the loss of flow condition.

At approximately 1500 hours, the responsible Health Physicist (H.P.) was dispatched to aid in the investigation. The H.P. discovered that the filters in the SPING sampler were filled with water and that it had been placed in the "Standby" mode.

At approximately 1545 hours, the H.P. manually started the alternate sample system (General Electric Model). Per Technical Specification (T.S.) Table 3.2.5 with less than the minimum channels operable for monitoring particulate and iodine, release via this pathway may continue provided the auxiliary system is continuously collecting a sample. From 1040 hours to 1545 hours continuous monitoring for particulate and iodine was not accomplished.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Dresden Nuclear Power Station, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 3 7	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	— 0 2 4	— 0 1	0 3	OF	0 4

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

Work Request #D59639 was initiated by the H.P. to investigate and repair the SPING sampler. The Instrument Maintenance (I.M.) Department dried out the SPING, replaced the detector mylar (mylar shields the light-sensitive beta detector for the low range particulate monitor in the SPING), calibrated, and verified proper operability of the SPING.

The SPING was placed back in service on 12/2/86 at 1330 hours at which time the use of the auxiliary G.E. sampler was discontinued.

A review was conducted to determine how the SPING had been placed in the "Standby" mode without alternate continuous iodine and particulate monitoring being established. The SPING data printout for 11/16/86 and 11/17/86 was examined to determine the time at which the channel number 5 went into the "Standby" mode.

<u>Date</u>	<u>Time</u>	<u>Channel 5 2/3 Chimney Release Rate, $\mu\text{Ci/cc}$</u>	<u>SPING Operational Mode</u>
11/16/86	0000 hrs.	3.8 E -06	Normal
11/16/86	0801 hrs.	3.1 E -06	Normal
11/16/86	1524 hrs.	3.22 E -06	Normal
11/17/86	0039 hrs.	4.06 E -06	Normal
11/17/86	0928 hrs.	4.24 E -06	Normal

The SPING was placed into the "Standby" mode at approximately 1041 hours on 11/17/86. At approximately 1040 hours on 11/17/86, an RCT performing routine daily noble gas sample calculations had contacted the Control Room for flow information from SPING Channel 10. This data was obtained from the Control Room panel 923-7 SPING terminal keyboard by a Nuclear Station Operator (NSO) and given to the RCT.

The "Standby" mode is used during maintenance and/or operational checks. The "Standby" mode is initiated from the panel 923-7 terminal keyboard. However, this mode does not prevent data from being obtained and printed if requested by the NSO. Release rates, stack flow and sample flow information can be obtained from panel 923-7 terminal keyboard in the Control Room. The NSO observed that the SPING was in the normal operational mode at this time and does not recall initiating the "Standby" mode. It is unclear how the "Standby" mode was initiated since the RCT's do not perform any activities at the terminal keyboard.

C. CAUSE OF EVENT:

The root cause of the 5 hour and 5 minute lapse in continuous iodine and particulate monitoring was a build-up of condensation in the SPING filters. During normal

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Dresden Nuclear Power Station, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 3 7	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	— 0 2 4	— 0 1	0 4	OF	0 4

TEXT (If more space is required, use additional NRC Form 368A's) (17)

SPING operation, this would have resulted in the annunciation of a low flow alarm in the Control Room; however, since the SPING was in the "Standby" mode no alarm was received and the problem was not observed until the next shift during performance of routine chimney release rate surveillances. The cause of the condensation is believed to be a change in atmospheric conditions in the area of the SPING sampling components. Investigation by the Health Physics staff has found that this was an isolated event and no further preventative measures are needed.

D. SIGNIFICANCE OF EVENT:

The main steam line radiation monitors and off-gas radiation monitor were operable therefore any Unit 2/3 chimney gaseous effluent would have been detected. Also any significant release would have been detected by an increase of the radiation level in the Reactor Buildings. Had such a transient occurred, Control Room personnel would have utilized the alternate sampling system for continuous chimney monitoring. Therefore, the safety significance of this event was minimal.

E. CORRECTIVE ACTIONS:

In order to help prevent future occurrences involving chimney sampling, a review of Technical Specification requirements and previous events was conducted with all RCT's. This training was completed on January 5, 1987. Additional training on SPING system operation was provided to licensed and non-licensed Operations personnel attending the rotating training schedule of February 23, 1987 to April 3, 1987.

F. PREVIOUS OCCURRENCE:

A similar occurrence was reported on Reportable Occurrence 86-021 on Docket #050237. This event involved a six hour and 19 minute lapse in continuous particulate and iodine monitoring due to a SPING filter changing procedural inadequacy.

G. COMPONENT FAILURE DATA:

Manufacturer: Eberline

Nomenclature: Mylar

Model Number: N/A

Mfg. Part Number: MMY4, MMY5



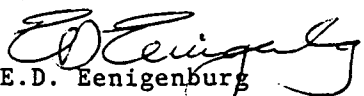
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Telephone 815/942-2920

May 18, 1987

EDE LTR #87-328

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

Licensee Event Report #86-024-1, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(i)(B). This revised report is submitted to provide further information regarding this event.


E.D. Eenigenburg
Station Manager
Dresden Nuclear Power Station

EDE/kjl

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
File/NRC
File/Numerical

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11