

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Clinton Power Station	DOCKET NUMBER (2) 0 5 0 0 0 4 6 1	PAGE (3) 1 OF 0 4
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TITLE (4) Unknown Plugged Inlet Lines Cause Drywell Air Coolers' Condensate Flow Monitoring System to be Inoperable Resulting in Missed Drywell Atmosphere Grab Samples

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)		
0 3	1 1	8 8	8 8	0 1 1	0 0 0	5	0 6	8 8	NONE		0 5 0 0 0		
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THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

OPERATING MODE (9) 1	20.402(b)	20.405(a)(1)(i)	20.405(a)(1)(ii)	20.405(a)(1)(iii)	20.405(a)(1)(iv)	20.405(a)(1)(v)	20.408(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 9 1 5	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	50.36(c)(1)	50.73(a)(2)(iv)	73.71(c)
	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 305A)
	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	50.73(a)(2)(iii)	50.73(a)(2)(viii)(A)	
	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	50.73(a)(2)(iv)	50.73(a)(2)(viii)(B)	
	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	20.405(a)(1)(ii)	50.73(a)(2)(vii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME R. T. Kerestes, Director - Field Engineering - Nuclear Station Engineering Department, X 3983	TELEPHONE NUMBER 2 1 7 9 3 5 - 8 8 8 1
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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
X	I J	F T	I 2 0 4	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)

ABSTRACT

On April 7, 1988, with the plant in Mode 4 (COLD SHUTDOWN), technicians identified that two drywell air coolers' condensate flow rate turbine meters were inoperable because their inlet lines were clogged with debris. Prior to this identification on April 7, these meters had been inoperable for an indeterminate period of time. On March 11, 1988, with the plant in Mode 1 (POWER OPERATION), the drywell atmosphere gaseous radioactivity monitoring system was removed from service due to the gas channel reading low during calibration. Technical Specification 3.4.3.1 requires grab samples of drywell atmosphere to be taken and analyzed when both the drywell air coolers' condensate flow rate and drywell atmosphere gaseous radioactivity monitoring systems are inoperable. Since the turbine meters were not known to be clogged and inoperable until April 7, grab sampling was not initiated on March 11. The cause of this event is attributed to foreign material entering the system during plant construction, operation or maintenance and causing the turbine meters to fail. Corrective action involved cleaning the inlet lines and the turbine meters and removing obstructions. The drywell air coolers' condensate drain line flow detection system is being evaluated to determine what enhancements could be made to prevent recurrence of this event.

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

DESCRIPTION OF EVENT

On April 7, 1988, at approximately 1800 hours, with the plant in Mode 4 (COLD SHUTDOWN), at approximately 160 degrees Fahrenheit and atmospheric pressure, mechanical maintenance technicians identified that drywell air coolers' condensate [LJ] flow rate turbine meters [FT] 1E31-N033A and 1E31-N021 were inoperable because their inlet lines were clogged with debris (one small piece of tape, one small piece of plastic bag and mud). This condition was discovered when the drain lines for drywell air coolers' drain pans [COL] were flushed to remove dirt that was observed in the pans. Prior to discovery of this condition on April 7, the meters had been inoperable for an indeterminate period of time.

On March 11, 1988, at approximately 1930 hours with the plant in Mode 1 (POWER OPERATION) at approximately 95% reactor [RCT] power, the drywell atmosphere gaseous radioactivity monitoring system [LJ] was taken out of service due to the gas channel reading low during performance of its calibration surveillance. This gaseous radioactivity monitoring system was inoperable until April 25, 1988 at 1255 hours.

Plant Technical Specification 3.4.3.1 requires grab samples of drywell atmosphere to be taken and analyzed periodically when the drywell air coolers' condensate flow rate turbine meters are inoperable and the drywell atmosphere gaseous radioactivity monitoring system is out of service. This Technical Specification is applicable only in Modes 1, 2 (STARTUP), and 3 (HOT SHUTDOWN). Since the drywell air coolers' condensate flow rate turbine meters were not known to be clogged and inoperable until April 7, grab sampling was not initiated on March 11. As a result, the plant was in violation of Technical Specification 3.4.3.1 from March 11 until March 19, 1988, at 2045 hours when it entered Mode 4 for the planned spring 1988 outage. Technical Specification 3.4.3.1 does not require drywell air coolers' condensate flow rate and atmosphere gaseous radioactivity monitoring systems to be operable in Mode 4.

No automatic or manually initiated safety system responses were necessary to place the plant in a safe and stable condition. No other equipment or components were inoperable such that their inoperable condition contributed to this event.

CAUSE OF EVENT

The cause of this event is attributed to foreign material entering the system during plant construction, operation or maintenance and resulting in the failure of the drywell air coolers' condensate flow rate turbine meters.

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

CORRECTIVE ACTION

The drywell air coolers' drain pan drain lines and the turbine meters were cleaned so that flow is not obstructed. Turbine meter 1E31-N033A was replaced because it failed the functional test. These actions were performed in accordance with Maintenance Work Request C46061. The turbine meters were operable by April 18, at approximately 1330 hours.

Illinois Power Company is evaluating the drywell air coolers' condensate drain line flow detection system to determine what enhancements could be made to prevent this condition from recurring. This evaluation is expected to be complete by September 30, 1988.

Further investigation of this event identified that eighteen-month Surveillance Procedure 9443.06, DRYWELL AIR COOLER DRAIN FLOW RATE E31-N021 (N033A) CHANNEL CALIBRATION, did not include the flow rate turbine meters in the channel calibration because the meters do not have any adjustable parameters and are unable to be calibrated. In accordance with the procedure, the channel was tested by disconnecting the meters from the pre-amplifier [AMP] locally and injecting a frequency signal into the pre-amplifier input. Surveillance procedure 9443.06 was revised on April 16, 1988, to required that a functional check of the turbine meters be performed during channel calibration to ensure operability of the channel.

ANALYSIS OF EVENT

This event is reportable under the provisions of 10CFR50.73(a)(2)(i)(B) due to a condition prohibited by the plant's Technical Specifications.

Review of this event indicates that the drywell air coolers' condensate flow rate monitoring system was inoperable for an indeterminate period of time ending at approximately 1330 hours on April 18, 1988, when the flow rate turbine meters were determined operable. The drywell atmosphere gaseous radioactivity monitoring system was out of service from approximately 1930 hours on March 11 until approximately 1255 hours on April 25, 1988.

The drywell coolers' condensate flow rate and the drywell atmosphere gaseous radioactivity monitoring systems provide continuous indication in the main control room and activate alarms in the control room when unidentified reactor coolant leakage exceeds specified limits.

Assessment of the safety consequences and implications of this event indicates that the event was not safety-significant for existing or other plant conditions or modes. At the time of this event, the drywell floor drain sump and drywell equipment drain sump monitoring systems were operable and would have identified unusual reactor coolant leakage.

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TEXT (if more space is required, use additional NRC Form 386A's) (17)

ADDITIONAL INFORMATION

The drywell air coolers' condensate flow rate turbine meters are model number 7183 manufactured by ITT Barton.

LER 86-020-00 discussed an engineered safety feature actuation that resulted from rust particulate inside a level transmitter.

For further information regarding this event, contact R. T. Kerestes, Director - Field Engineering, Nuclear Station Engineering Department, at (217) 935-8881, extension 3983.

U-601182
L45-88(05-06)-LP
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ILLINOIS POWER COMPANY



CLINTON POWER STATION, P.O. BOX 678, CLINTON, ILLINOIS 31727

10CFR50.73

May 6, 1988

Docket No. 50-461

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

Subject: Clinton Power Station - Unit 1
Licensee Event Report No. 88-011-00

Dear Sir:

Please find enclosed Licensee Event Report No. 88-011-00:
Unknown Plugged Inlet Lines Cause Drywell Air Coolers' Condensate Flow
Monitoring System to be Inoperable Resulting in Missed Drywell
Atmosphere Grab Samples. This report is being submitted in accordance
with the requirements of 10CFR50.73.

Sincerely yours,

A handwritten signature in dark ink, appearing to read 'F. A. Spangenberg, III'. The signature is written in a cursive style with a large initial 'F' and 'S'.

F. A. Spangenberg, III
Manager - Licensing and Safety

RSF/krm

Enclosure

cc: NRC Resident Office
NRC Region III, Regional Administrator
INPO Records Center
Illinois Department of Nuclear Safety
NRC Clinton Licensing Project Manager

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