CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9609110271 DOC.DATE: 96/09/03 NOTARIZED: NO DOCKET #
FACIL:50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylva 05000387
AUTH.NAME AUTHOR AFFILIATION
KICHLINE,R.D. Pennsylvania Power & Light Co.
KUCZYNSKI,G.J. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 96-008-00:on 960802,Unit 1 Turbine Bldg & Reactor Bldg sys particulate,I & noble gas alternate sampling was not performed.Caused by failure of personnel to respond to alarms.Training was provided to personnel.W/960903 ltr.

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

NOTES: 05000387

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	NRR/DE/ECGB	1	1	NRR/DE/EELB	1	1
	NRR/DE/EMEB	1	1	NRR/DRCH/HHFB	1	1
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	RES/DSIR/EIB	1	1	RGN1 FILE 01	1	1
EXTERNAL:	L ST LOBBY WARD	1	1	LITCO BRYCE,J H	2	2
	NOAC MURPHY,G.A	1	1	NOAC POORE,W.	1	1
	NRC PDR	1	1	NUDOCS FULL TXT	1	1
NOTES:		1	1			

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CATEGORY 1 DOCUMENT

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September 3, 1996

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 50-387/96-008-00
PLAS - 676 FILE R41-2

Docket No. 50-387
License No. NPF-14

Attached is Licensee Event Report 50-387/96-008-00. This report is being made pursuant to 10CFR50.73(a)(2)(i)(B), in that Susquehanna Unit 1 was in a condition prohibited by Technical Specification Table 3.3.7.11, ACTION statement 112, when the Unit 1 Turbine Building SPING and Reactor Building SPING were out of service and the alternate continuous sampling was not promptly established per the Technical Specification LCO.

G. J. Kuczynski
Plant Manager - Susquehanna SES

Attachment

cc: Mr. H. J. Miller
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IE22
1/1

NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92
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), U7.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1): Susquehanna Steam Electric Station - Unit 1

DOCKET NUMBER(2): 0 5 0 0 0 3 8 7

PAGE (3): 1 OF 0 4

TITLE (4): Unit 1 Turbine Building and Reactor Building SPINGS Alternate Sampling Was Not Performed

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 8	0 2	9 6	9 6	— 0 0 8	— 0 0	0 9	0 3	9 6		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9): 3

POWER LEVEL (10): 0 0 0

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

	20.402(b)		20.405(c)		50.73(a)(2)(iv)
	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)
	20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)
	20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)
	20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)
	20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)

	73.71(b)
	73.71(c)
	OTHER (Specify in Abstract below and in Text, NRC Form 366A)

(LICENSEE CONTACT FOR THIS LER (12))

NAME: Robert D. Kichline - Project Licensing Specialist

TELEPHONE NUMBER — AREA CODE: 6 1 0 7 7 4 - 7 7 0 5

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On August 2, 1996, at 1105 hours with Unit 1 in Condition 3 at 0% power, it was determined that the sample flow from the Unit I Turbine Building and Reactor Building vents (System Particulate, Iodine, Noble Gas (SPING)) was lost as a result of the 1A Engineered Safeguard System (ESS) bus being inadvertently deenergized as a result of electrical maintenance work. Alternate continuous sampling began at 1325 hours on August 2,1996, for the Reactor Building vent (SPING) and at 1330 hours on August 2, 1996, for the Turbine Building vent (SPING). This event was determined to be reportable per 10CFR50.73 (a) (2) (i) (B), as a condition prohibited by the plant's Technical Specification Table 3.3.7.11-1 ACTION 112 in that continuous sampling of the Turbine Building and Reactor Building vents was not maintained. The cause of the event was determined to be the failure of personnel to question the effects of alarms that indicate a loss of vent flow, coupled with the priority placed on restoration of the 1A ESS bus. Upon receipt of the initial alarm, a determination was made that the alarm was not due to a radioactive release. The Unit 1 Turbine Building and Reactor Building vent sampling immediately prior to and following the flow interruption were analyzed and showed no measurable activity. Additionally, there were no changes in plant conditions that would indicate that any release occurred. Therefore, it was concluded that no significant release of radioactivity occurred while sampling was lost from these vents. Technical Specification compliance was achieved following the installation of portable continuous sampling. Corrective actions include: training of personnel on expectations relative to SPING and alarm responses, a procedural revision to assure proper response to a loss of vent sampling as a result of a bus outage and evaluating whether clarification to Technical Specification 3.3.7.11-1 ACTION 112 or design changes to the vent sampling system are necessary.

DESCRIPTION OF EVENT

On August 2, 1996, at 1105 hours with Unit 1 in Condition 3 at 0% power, it was determined that the sample flow from the Unit I Turbine Building SPING (EIIS Code: IL) and Reactor Building SPING (EIIS Code: IL) was lost as a result of the 1A Engineered Safeguard System (ESS) bus (EIIS Code: EK) being inadvertently deenergized as a result of electrical maintenance work. At 1135 on August 2, 1996, Chemistry personnel were notified by Operations that ESS Bus 1A had deenergized. This resulted in ventilation losses to Zones I and III, and the initiation of SPING alarms. It was determined on receipt of the initial alarm, that the alarm was not due to a radioactive release. The Chemistry technician contacted believed the SPING alarms to only be the result of loss of ventilation and not a result of loss of sample flow. At 1300 on August 2, 1996, a second Chemistry technician questioned the continuing Turbine Building and Reactor Building SPING alarms even though there was normal vent flow on the Unit 1 Turbine Building vent. Two other Chemistry technicians were then dispatched to the Unit 1 Turbine Building and Reactor Building vent sample pumps. They determined that the sample pumps were inoperable due to lack of power. The Chemistry technicians then started alternate sampling using a separate pump and power supply. Alternate continuous sampling began at 1325 hours on August 2,1996, for the Reactor Building vent (SPING) and at 1330 hours on August 2, 1996, for the Turbine Building vent (SPING). This restored the continuous particulate and iodine sampling in accordance with Technical Specification Table 3.3.7.11-1 ACTION 112.

CAUSE OF EVENT

The cause of the event was the failure of the Chemistry (utility; non-licensed) and Operations (utility; licensed) personnel to properly evaluate and respond to the Turbine Building and Reactor Building SPING alarms. A contributing factor was the failure to recognize the significance of the SPING alarms to the loss of the 1A ESS bus. Chemistry personnel presumed the SPING alarms to be the result of a loss of ventilation and not related to the loss of sample flow, and therefore, took no further action nor entered the Chemistry off-normal procedure. Although Operations personnel informed Chemistry personnel of the SPING alarms they did not initiate the actions of the SPING alarm response procedure. Also, the priority evolution associated with this event (failure to sample) was the restoration of the 1A ESS bus. However, the off-normal procedure utilized to restore the bus did not address the loss of vent sampling or specify operator actions associated with loss of the vent sampling.

During the investigation of this event, it was also identified that Technical Specification 3.3.7.11-1 ACTION 112 is not explicitly clear in providing a time requirement for the establishment of continuous sampling when a loss of sample flow occurs and the vent sampling systems are not designed to automatically maintain continuous sampling.

REPORTABILITY/ANALYSIS

This event was determined to be reportable per 10CFR50.73 (a) (2) (i) (B), as a condition prohibited by the plant's Technical Specifications in that Technical Specification Table 3.3.7.11-1 ACTION 112 was not met when the Unit 1 Turbine Building and Reactor Building SPINGs were out of service and alternate continuous sampling was not established for 2 hours 25 minutes, and 2 hours 20 minutes, respectively. ACTION statement 112 requires continuous sampling of iodine and particulates. Without the continuous alternate sampling, the particulate and iodine releases from the Unit 1 Turbine Building and Reactor Building during the time of lost sampling are not definitely known and would have had to have been estimated if an actual release occurred. However, sampling of the Unit 1 Turbine Building and Reactor Building immediately prior to and following the lost sampling period were analyzed and showed no measurable activity. Since no plant evolutions were in progress which would be indicative of a change in releases, it was concluded that no significant release of radioactivity could have occurred while sampling was lost from these vents. Therefore, this condition did not created a degradation in the station's ability to protect the health and safety of the public and/or plant personnel. Although Technical Specification 3.3.7.11-1 ACTION 112 does not provide a time requirement for establishment of continuous sampling upon loss of sample flow (i.e., ACTION 112 states, "continuously collected with auxiliary sampling equipment"), if corrective action to restore sample flow is initiated without unnecessary delay, and no substantial impact on "continuous" monitoring has occurred, the intent of Technical Specification 3.3.7.11-1 ACTION 112 has been achieved. This interpretation is being substantiated with NRR.

In accordance with the guidance provided in NUREG 1022, Supplement 1 item 14.2 and 10CFR50.4 (d), the required submission date for this report was determined tc be September 3, 1996.

CORRECTIVE ACTIONS

Upon identification of the extended loss of sampling, Technical Specification Table 3.3.7.11-1 LCO's were taken on the Unit 1 Turbine Building and Reactor Building vent monitors (SPINGs). Technical Specification compliance was achieved at 1325 hours on August 2, 1996, when continuous alternate sampling was started on the Reactor Building vent, and at 1330 hours on August 2, 1996, on the Turbine Building vent. Other corrective actions to be taken include:

- Identify and inform Chemistry technicians on management's expectations in response to SPING alarms,

- Provide training to Operations personnel on management's expectations relative to the use of alarm response procedures, and
- Revise the off normal (loss of ESS bus) procedure to identify loss of Turbine Building and Reactor Building vent sampling as a result of the bus outage and to require Operator action (notify Chemistry) to restore sampling.
- An evaluation to determine the necessity of Technical Specification 3.3.7.11-1 ACTION 112 clarification or design changes to the Turbine Building and Reactor Building vent sampling systems.

ADDITIONAL INFORMATION

Failed Component Identification: Not Applicable.

Past Similar Events: LER 50-387/84-039
LER 50-387/85-013
LER 50-387/94-005-00