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ComEd

March 4, 1996

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Licensee Event Report #96-002-00, Docket #050-374 is being submitted to your office in accordance with 10CFR50.73 (a) (2) (iv).

Respectfully,

D. J. Ray
Station Manager
LaSalle County Station

Enclosure

cc: H. J. Miller, NRC Region III Administrator
P. G. Brochman, NRC Senior Resident Inspector - LaSalle
C. Matthews, IDNS Resident Inspector - LaSalle
F. Niziolek, IDNS Senior Reactor Analyst
INPO - Records Center
D. L. Farrar, Nuclear Regulatory Services Manager

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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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 (MNBB 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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
LaSalle County Station Unit Two	05000374	1 of 4

TITLE (4)
Manual Reactor Scram Due To 2E Main Power Transformer High Temperature.

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 NAME	DOCKET NUMBER
									NONE	
02	04	96	96	002	00	03	04	96	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: Degree Check one or more) (11)						
			20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)	73.71(b)
POWER LEVEL (10)	100		20.2203(a)(1)		20.2203(a)(3)(ii)	X	50.73(a)(2)(iv)	73.71 Degree C)
			20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)	OTHER
			20.2203(a)(2)(ii)		50.36 Degree C)(1)		50.73(a)(2)(vii)	(Specify in Abstract below and in Text, NRC Form 366A)
			20.2203(a)(2)(iii)		50.36 Degree C)(2)		50.73(a)(2)(viii)(A)	
			20.2203(a)(2)(iv)		50.73(a)(2)(i)		50.73(a)(2)(viii)(B)	
			20.2203(a)(2)(v)		50.73(a)(2)(ii)		50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Larry Bukantis, System Engineering	(815) 357-6761 x 2576

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)			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)

At 2037 hours, on February 4,1996, Unit 2 was in Operational Condition 1 (Run) at 100 % power when it was manually scrammed per LOA-AP-06 "Actions on Transformer Trouble Alarm". At 2005 hours, the control room received a 2E Main Power Transformer trouble alarm and dispatched an Equipment Operator (EO) to investigate. The EO found no cooling fans or cooling pumps running even though all power supplies and breaker line-ups were normal. The Shift Engineer directed an emergency load reduction per LGP-3-1 "Power Changes". When Transformer cooling could not be restored the unit was manually scrammed.

All systems responded as designed with the exceptions of the 2A Circulating water pump which tripped on the electrical load transfer, and the Electric - Hydraulic control (EHC) system pressure was low for turbine control pressure.

The cause of the event was determined to be the loss of transformer cooling caused by an open circuit in the transformer cooling logic.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

A. CONDITION PRIOR TO EVENT

Unit(s): 1/2 Event Date: 02/04/96 Event Time: 2037 Hours

Reactor Mode(s): 5/1 Modes(s) Name: Refuel/Run Power Level(s): 0% 100%

B. DESCRIPTION OF EVENT

At 2037 hours, on February 4,1996, LaSalle Unit 2 was operating at approximately 100 % power when it was manually scrammed as required per LOA-AP-06 "Actions on Transformer Trouble Alarm".

At 2005 hours, the 2E Main Power Transformer (MPT)[EL] trouble alarm was received in the control room and an Equipment Operator (EO) was dispatched to the transformer. LOA-AP-06 was entered after discovering all cooling fans and pumps were de-energized The EO reported that 2E MPT oil temperature was 92° C and transformer cooling could not be locally restored.

U2 generator MVars were reduced to 0 and, at 2015 hours, the Shift Engineer directed a generator load reduction at 120 Mw/hr. The operators confirmed that normal and alternate cooling feed breakers for transformer were closed. The Shift Engineer ordered core flow reduced to 60 M lbm/hr and ordered an emergency power reduction per LGP-3-1 "Power Changes". At 2037 hours, when transformer cooling could not be restored, the unit was manually scrammed. The Main turbine and generator tripped and all off-site buses fast-transferred successfully.

The 2A CW pump tripped following fast-transfer from Unit Auxiliary Transformer (UAT) to Station Auxiliary Transformer (SAT). The Electric - Hydraulic control (EHC)[JJ] system pressure dropped from 1525 lbs. to 1100 lbs., when several turbine shutoff valves stuck in reset.

C. CAUSE OF EVENT

During trouble shooting, it was discovered that power was not available to the transformer control logic even though all the associated breakers were closed. The cabling between the 2E MPT and the station generator panel (2PL18J) appeared to have severed (electrically open) by ice forming in a section of the cable conduit. The cable is used to energize a contactor at the transformer, which starts the associated transformer oil pumps and fans after the generator field breaker closes.

The Operational Analysis Department (OAD) was able to verify the cable break approximately 25' from the transformer at the point where it enters the underground

cable trough. The generator field breaker contacts which auto-start the cooling fans, will be bypassed as an interim measure until permanent repairs can be made.

The alarm circuitry was reviewed. The loss of oil flow alarm relay did not energize due to the failure mode and thus, no advanced warning of the abnormal condition was available to the control room. The high oil temperature alarm functioned properly and did alarm the control room of the loss of cooling.

Transformer oil samples were analyzed with satisfactory results. No further concerns exist with the 2E MPT.

This event is reportable per 10CFR50.73(a)(2)(iv) due to an automatic actuation of an engineered safety feature (ESF).

D. ASSESSMENT OF SAFETY CONSEQUENCES

The Shift Engineer directed a manual scram of the Unit 2 reactor when it was apparent that the 2 East Main Power Transformer oil temperature could not be maintained within the procedural limits set forth in LOA-AP-06, " Actions on Transformer trouble Alarms". The safety significance of this event was minimal. Off site power was maintained to station equipment via the fast transfer of loads from the UAT to the SAT. All Safety Systems operated as designed.

E. CORRECTIVE ACTIONS

1. Immediate Corrective Actions

   a. Engineering inspected the other conduits associated with 2E, 2W, and Unit Auxiliary Transformers. These conduits were evacuated of water / ice and properly sealed. Continuity of the other cables in the affected conduit was verified by the EMD and OAD.

   b. Engineering installed LAP-240-6, Temporary System Change (TSC) 2-0005-96 to bypass the open circuit in the transformer control logic. Operating submitted a temporary procedure change to LOP-TG-02(Turbine Generator Startup) which reflects the installation of TSC 2-0005-96

   c. EHC pressure switches and the stuck shut off valves were replaced.

2. Long Term Corrective Actions

   a. Repairs to the cabling between the 2E MPT and the station generator panel (2PL18J) will be completed during the next forced outage of sufficient duration.

   b. Work to address the 2 A Circulating Water pump trip (during bus transfer) will be completed by August 10, 1996.

F. PREVIOUS OCCURRENCES

None

G. COMPONENT FAILURE DATA

Since no component failure occurred, this section is not applicable.