Commonwealth Edison Company
LaSalle Generating Station
2601 North 21st Road
Marseilles, IL 61341-9757
Tel 815-357-6761

ComEd

May 15, 1995

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

Licensee Event Report #95-008-00, Docket #050-374 is being submitted to your office in accordance with 10CFR50.73 (a)(2)(iv).

Sincerely,

D. J. Ray
Station Manager
LaSalle County Station

DJR/WJB/lja

Enclosure

cc: NRC Region III Administrator
NRC Senior Resident Inspector
INPO - Records Center
IDNS Resident Inspector
IDNS Senior Reactor Analyst
Nuclear Licensing Administrator
Nuclear Safety Review

IE22

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 2	05000374	1 OF 4

TITLE (4)

Reactor Scram from High Scram Discharge Volume Water Level Due to Management Deficiency

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
04	15	95	95	-- 008 --	00	05	15	95	None	
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	5
POWER LEVEL (10)	000

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

	20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)		73.71(b)
	20.2203(a)(1)		20.2203(a)(3)(ii)	X	50.73(a)(2)(iv)		73.71(c)
	20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)		OTHER
	20.2203(a)(2)(ii)		50.36(c)(1)		50.73(a)(2)(vii)		(Specify in Abstract below and in Text, NRC Form 366A)
	20.2203(a)(2)(iii)		50.36(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)
William Bejlovec, Instrument Maintenance Staff, Ext. 2673	(815) 357-6761

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
E				N						

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 15 single-spaced typewritten lines) (16)

On April 15, 1995, LaSalle Unit 2 was in Operational Condition 5 (Refuel). At the time of the event, the Instrument Maintenance Department (IMD) was testing the Anticipated Transient Without Scram/Alternate Rod Insertion (ATWS/ARI) power supplies within the guidelines of a work request. At 0455 hours, trip signals were received from Reactor Water Level and Reactor Pressure Channels "A" and "C" of ATWS/ARI. This actuation resulted in the Scram Air Header depressurizing. At 0456 hours, a full Scram signal was received from high Scram Discharge Volume (SDV) level. At the time of the trip of the Reactor Protection System (RPS), all control rods were already fully inserted.

The root cause was management deficiency due to insufficient job scoping. Immediate corrective actions included stopping the work and restoring the electrical lineup. At 0517 hours, the ATWS/ARI power supplies were returned to normal, and the trip logic was reset.

This event is being reported to the Nuclear Regulatory Commission as a Licensee Event Report in accordance with 10CFR50.73(a)(2)(iv) as an actuation of a Engineered Safety Feature.

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): 2 Event Date: 4/15/95 Event Time: 0455 Hours

Reactor Mode(s): 5 Modes(s) Name: Refuel Power Level(s): 0%

B. DESCRIPTION OF EVENT

On April 15, 1995, LaSalle Unit 2 was in Operational Condition 5 (Refuel). At 0455 hours, trip signals were received from Reactor Water Level and Reactor Pressure Channels "A" and "C" of Anticipated Transient Without Scram/Alternate Rod Insertion (ATWS/ARI, RD)[AA] Instruments. Prior to the event, Instrument Maintenance Department (IMD) activities were in progress concerning the ATWS/ARI 25Vdc power supplies. The Division I power supplies (2C22-K601A and 2C22-K601C) were recently subjected to an input DC over-voltage transient. The testing was intended to verify that the equipment performed within manufacturer's specifications. This was the second attempt to obtain accurate results. Initial testing was performed under normal operating conditions which did not meet specified manufacturer's tolerances.

The work package was revised to test the power supplies while isolated from normal plant loads. The power supplies are configured to provide uninterrupted service in the event one power supply fails. The IM Supervisor and his crew reviewed the package and drawings during their normal pre-job briefing. During the normal pre-job briefing with the Unit Shift Supervisor (USS) in the Control Room, the USS noted the ATWS/ARI Panel gets deenergized periodically during execution of LaSalle Operating Procedure LOP-DC-04, "125 Vdc System Division I Ground Location and Isolation". This procedure states that no trips will occur.

The revised work steps of the package directed the lifting of both the positive and negative output leads of the power supply to be tested. An IM Technician identified that the negative lead to the power was electrically wired in series (daisy-chained) to the auctioneered power supply. The IM Technician contacted the IM Supervisor, who reviewed the electrical prints and noted that the ATWS/ARI logic is an energize-to-actuate configuration. The IM Supervisor reasoned that the panel could lose power without adverse effects and would be acceptable for the work to proceed.

B. DESCRIPTION OF EVENT (Continued)

With the positive output lead already lifted, the IM Technician lifted the negative lead. This action interrupted the "daisy-chained" path. This removed the power return reference point, causing the output trip logic to actuate. This actuated both Division I "A" and "C" channels of ATWS/ARI, resulting in the Scram Air Header depressurizing. Accordingly, the scram inlet and outlet valves opened, and the Scram Discharge Volume (SDV) vent and drain valves closed, which are all expected responses. With the valves repositioned, the SDV began filling with water. At 0456 hours, a full Scram signal was received from high SDV level. At the time of the scram all control rods were already fully inserted.

Control Room Personnel recognized from the alarms received that the trips were related to the IMD work in progress. An initial investigation and discussion determined IM Technician actions caused the event. IMD subsequently restored the ATWS/ARI power supply arrangement to normal, and the scram logic was reset.

This event is reportable pursuant to 10CFR 50.73(a)(2)(iv) due to an actuation of an Engineered Safety Feature.

C. CAUSE OF EVENT

The root cause of this event is management deficiency. The primary weakness that led to this event was in the Work Organization/Planning phase. There was insufficient job scoping to identify special circumstances and conditions which may be encountered. The electrical prints were reviewed, but the panel electrical connection points were not physically walked down for the second preparation of the work package steps. Thus, the daisy-chained configuration was not identified nor taken into account during package preparation steps.

A contributing cause precursor to this event was the failure to properly use test equipment. An oscilloscope was used to obtain the peak-to-peak electrical noise level of the power supplies under normal operating conditions. As taken, these values failed to meet manufacturer's specification. This result prompted a revision of the work package instructions. An investigation triggered by this event revealed that the oscilloscope was not properly isolated from plant electrical ground. With the oscilloscope properly isolated, the peak-to-peak electrical noise level readings were well within manufacturer's tolerances and could have been safely obtained without having to disconnect a lead.

D. SAFETY ANALYSIS

The safety consequences of this event were minimal. The affected ATWS/ARI trip logic and the SDV high level trip functioned as designed. No control rod motion occurred, since the unit was in the refuel condition. No other initiations or trips occurred, and no other plant systems or components were affected.

E. CORRECTIVE ACTIONS

Immediate corrective actions included proper response of Operating Personnel to alarm/annunciator conditions and performing their required immediate action. Other corrective actions included the work being stopped, restoration of the ATWS/ARI power supply arrangement to normal, and the scram logic was reset.

LaSalle Nuclear Station Maintenance Department Memorandum 200-09, "Maintenance Practices for Performing Independent Verification for Lifting and Landing Leads and Jumpers", was also revised to add a statement specifying the potential for "daisy-chains" must be reviewed to ensure no unanticipated events will occur.

Training Identification Forms (TIFs) were submitted to enhance oscilloscope training information and for awareness training concerning "daisy-chained" circumstances.

LaSalle Administrative Procedure, LAP-600-9, "General Information Notifications (GIN)", was submitted to appropriate work groups, including Work Analysts and Maintenance Groups, to enhance awareness to "daisy-chained" arrangements.

F. PREVIOUS OCCURRENCES

A previous events search was performed looking for ESF actuations caused by management deficiency.

LER Number	Title
374/95-003	Reactor Scram As a result of High Water Level in Scram Discharge Volume while Hydrolazing (root cause was Management Deficiency)

G. COMPONENT FAILURE DATA

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