**Commonwealth Edison**
Zion Generating Station
101 Shiloh Blvd.
Zion, Illinois 60099
Telephone 312/746-2084

December 4, 1989

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

Dear Sir:

The enclosed Licensee Event Report number 89-021-00, Docket No. 50-295/DPR-39 from Zion Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(iv), which requires a 30 day written report when any event or condition occurs that results in manual or automatic actuation of any Engineered Safety Feature.

Very truly yours,

W. P. Kuch

for T. P. Joyce
Station Manager
Zion Generating Station

TPJ/nd

Enclosure: Licensee Event Report

cc: NRC Region III Administrator
NRC Resident Inspector
INPO Record Center
CECo Distribution List

IE27
1/1

LICENSEE EVENT REPORT (LER) Form Rev 2.0

| Facility Name (1) | Docket Number (2) | Page (3) |
|---|---|---|
| Zion Unit 1 | 0 5 0 0 0 2 9 5 | 1 of 0 2 |

Title (4)

1C Service Water Pump Auto Start Due To Personnel Error

| 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) |
| 1 1 | 0 2 | 8 9 | 8 9 | --- | 0 2 1 | --- | 0 0 | 1 2 | 0 4 | 8 9 | N/A | |

| OPERATING MODE (9) | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11) | | | |
|---|---|---|---|---|---|
| 6 | ___ 20.402(b) | ___ 20.405(c) | X 50.73(a)(2)(iv) | ___ 73.71(b) | |
| POWER LEVEL (10) 0 0 0 | ___ 20.405(a)(1)(i) | ___ 50.36(c)(1) | ___ 50.73(a)(2)(v) | ___ 73.71(c) | |
| | ___ 20.405(a)(1)(ii) | ___ 50.36(c)(2) | ___ 50.73(a)(2)(vii) | ___ Other (Specify | |
| | ___ 20.405(a)(1)(iii) | ___ 50.73(a)(2)(i) | ___ 50.73(a)(2)(viii)(A) | in Abstract | |
| | ___ 20.405(a)(1)(iv) | ___ 50.73(a)(2)(ii) | ___ 50.73(a)(2)(viii)(B) | below and in | |
| | ___ 20.405(a)(1)(v) | ___ 50.73(a)(2)(iii) | ___ 50.73(a)(2)(x) | Text) | |

LICENSEE CONTACT FOR THIS LER (12)

| Name | TELEPHONE NUMBER |
|---|---|
| | AREA CODE |
| Paul Geddes, LER Coordinator ext. 201 | 7 0 8 7 4 6 - 2 0 8 4 |

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 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 fifteen single-space typewritten lines) (16)

Unit 1 was in Mode 6, Refueling. Engineered Safety Features (ESF) Bus 149 had been deenergized for maintenance. Deenergizing the bus generated the equivalent of a second level undervoltage condition, which resulted in the second level undervoltage actuation relay UVL-9 being energized. This was expected. Bus 149 was being reenergized following completion of the maintenance. The control switches for the equipment that would be started by the second level undervoltage relay UVL-9 (which would still be latched at this point in the procedure), are placed in the Pull to Lock position to prevent autostart. After Bus 149 had been reenergized, and at the point in the procedure where the Nuclear Station Operator (NSO) directed the Electrical A-Man to "Verify relay UVL-9 unlatched", the A-man instead verified that the UVL-9 was latched. At 2210 on 11/02/89, the control switch for 1C Service Water Pump was taken from the Pull to Lock position to the After Trip position, at which point the pump autostarted. This was due to the UVL-9 relay still being latched. Subsequent to the autostart the A-man was dispatched and the UVL-9 relay properly unlatched.

The cause of this event is personnel error in the poor communication between the Nuclear Station Operator (NSO), and the Electrical A-man.

There was no safety significance in that the equipment operated as designed.

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) Year | Sequential Number | Revision Number | Page (3) |
|---|---|---|---|---|---|
| Zion Unit 2 | 0 5 0 0 0 2 9 5 | 8 9 | - 0 2 1 | - 0 0 | 0 2 OF 0 2 |

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

A. CONDITION PRIOR TO EVENT

MODE 6 - Refueling RX Power 0 RCS [AB] Temperature/ Pressure -- °F/ -- psig

B. DESCRIPTION OF EVENT

Unit 1 was in Mode 6, Refueling. Engineered Safety Features (ESF) Bus 149 had been taken Out Of Service and deenergized for maintenance. Deenergizing the bus generated the equivalent of a second level undervoltage condition, which resulted in the second level undervoltage actuation relay UVL-9 being energized. This was expected. The UVL-9 relay is a latching type relay. During a genuine second level undervoltage condition, this relay provides the start signal for various equipment required for Safe Shutdown. The maintenance on the bus had been completed, the Out Of Service had been cleared, and Bus 149 was being reenergized. System Operating Instruction (SOI) 63 is the procedure governing this evolution. The control switches for the equipment that would be started by the second level undervoltage relay UVL-9 (which would still be latched at this point in the procedure), are placed in the Pull to Lock position to prevent autostart. Once the bus is reenergized, the UVL-9 relay is manually unlatched by the Electrical A-man, and control switches that were placed in the Pull to Lock position can be returned to normal. At the point in the procedure where the NSO directed the Electrical A-man to "Verify relay UVL-9 unlatched", the A-man misunderstood, and heard instead "Verify relay UVL-9 latched". Thus the A-man went and verified that the UVL-9 relay was latched. At 2210 on 11/02/89, the control switch for 1C Service Water Pump was taken from the Pull to Lock position to the After Trip position, at which point the pump autostarted. This was due to the UVL-9 relay still being latched. An investigation was performed, and the latched relay was found. At that time the UVL-9 relay was manually unlatched as required by the procedure. Equipment autostart was limited to the 1C Service Water Pump because the Control Switches for all other equipment were still in Pull to Lock.

C. APPARENT CAUSE OF EVENT

This event was caused by personnel error in the poor communication between the NSO and the Electrical A-man.

D. SAFETY ANALYSIS OF EVENT

Equipment operated as designed. The Service Water Pump was to be started anyway. Thus there was no safety impact.

E. CORRECTIVE ACTIONS

The immediate corrective action was to manually unlatch the UVL-9 relay. Personnel involved were counseled by an operating engineer as to the importance of proper communications, and particularly the importance of repeat back communication was re-emphasized. The Assistant Superintendent of Operating will review the importance of clear, concise communications during shift operations and turnover with all operating crews during their training weeks.

F. PREVIOUS EVENTS

These have been two previous events where poor communication caused or contributed to an ESF actuation. Part of the corrective actions for those events was to implement improved procedures emphasizing clear comunications and verbatim repeat backs where necessary. These corrective actions should have prevented this event.

G. COMPONENT FAILURE DATA

None