

LICENSEE EVENT REPORT (LER)

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| FACILITY NAME (1) LaSalle County Station Unit 1 | DOCKET NUMBER (2) 0 5 0 0 0 3 7 3 | PAGE (3) 1 OF 0 3 |
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TITLE (4)
1B RR Pump Suction Temp. RTD Well Leak

| 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 | 84 | 84 | 075 | 00 | 12 | 05 | 84 | NA | | 0 5 0 0 0 |
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|---------------------------|--|--|------------------|-----------------|--|-----------------|---------------------|--|--|--|--|
| OPERATING MODE (9) 4 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11) | | | | | | | | | | |
| POWER LEVEL (10) 9 0 0 | 20.402(b) | | | 20.408(e) | | | 80.73(a)(2)(iv) | | | 73.71(b) | |
| | 20.408(a)(1)(i) | | | 80.38(a)(1) | | | 80.73(a)(2)(v) | | | 73.71(a) | |
| | 20.408(a)(1)(ii) | | | 80.38(a)(2) | | | 80.73(a)(2)(vi) | | | OTHER (Specify in Abstract below and in Text, NRC Form 305A) | |
| | 20.408(a)(1)(iii) | | | 80.73(a)(2)(i) | | | 80.73(a)(2)(vii)(A) | | | | |
| | 20.408(a)(1)(iv) | | | 80.73(a)(2)(ii) | | | 80.73(a)(2)(vii)(B) | | | | |
| 20.408(a)(1)(v) | | | 80.73(a)(2)(iii) | | | 80.73(a)(2)(ix) | | | | | |

| LICENSEE CONTACT FOR THIS LER (12) | | | | | | | | | |
|------------------------------------|--|--|--|--|--|--|--------------------|--|--|
| NAME Dave Zoloty, extension 421 | | | | | | | TELEPHONE NUMBER | | |
| | | | | | | | AREA CODE 8 1 5 | | |
| | | | | | | | 3 5 7 - 6 7 6 1 | | |

| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | |
|--|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|--|
| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | |
| X | AID | TW | R | 373 | Y | | | | | |
| | | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|-------------------------------------|---|--|--|-------------------------------|-------|-----|------|
| <input checked="" type="checkbox"/> | YES (If yes, complete EXPECTED SUBMISSION DATE) | | | | | | |
| | | | | | 0 | 2 | 85 |

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

During a hydrostatic pressure test of the Unit 1 "B" Reactor Recirculation system, a leak was discovered in the 1B33-N023B thermowell. Visual inspection indicated a 180° circumferential crack in the thermowell body. Station Materials Analysis Department (SMAD) is presently analyzing the failed Rosemount, Inc. thermowell to find the cause of failure. The failed thermowell and RTD assembly were replaced with an identical unit. Further actions taken to prevent reoccurrence of this type of failure will be dependent on SMAD's determination as to the cause of failure.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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|--|-------------------------------------|----------------|-------------------|-----------------|----------|-------|
| FACILITY NAME (1) LaSalle County Station Unit 1 | DOCKET NUMBER (2) 0500037384 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | 84 | 075 | 00 | 02 | OF 03 |

TEXT (If more space is required, use additional NRC Form 266A's) (17)

I. EVENT DESCRIPTION

At 1440 on November 11, 1984, a hydrostatic pressure test at 1122 psig on the Unit 1 "B" Reactor Recirculation (AD) system revealed a leak around the 1B33-N023B thermowell. This instrument monitors the inlet temperature of the "B" Reactor Recirc. Pump. The Rosemount, Inc. thermowell is of a tapered design, consisting of a cylindrical base and a tapered cone shaped tip. The thermowell extends 4" into the reactor coolant flow and is 1 5/8" in diameter at its cylindrical base. The thermowell was subsequently removed and closer inspection revealed a hairline crack extending approximately 180° around the thermowell circumference at its transition from cylinder to cone. A machined 1/4" radius exists at this transition point.

II. CAUSE

The CECO Station Material Analysis Department (SMAD) will determine the mode of failure by applying metallographic examination techniques to the failed thermowell. A supplemental LER will present a full report of SMAD's findings.

III. PROBABLE CONSEQUENCES OF THE OCCURRENCE

The leaking thermowell did not affect the operability of its associated Resistance Temperature Detector (RTD). Although, exposure to a water environment may have caused the eventual failure of this RTD. The consequences of this type of failure would not be severe because an identical RTD arrangement exists on the "A" Reactor Recirc. Loop, and this temperature data is used only as an input for surveillances.

A failure possibility with more severe consequences would be the development of a 360° circumferential through-wall crack in the thermowell during power operation and the eventual separation of the thermowell tip from its welded base. In this case, some leakage would seep through the RTD/thermowell threaded connection and, if significant, would be detected as unidentified leakage by the Primary Containment floor sumps (IJ). A more severe result of the tip/base separation failure during operation would be the introduction of a 7" long piece of stainless steel directly into the Reactor Recirc. Pump impeller. The pump impeller would be severely damaged and pieces of the thermowell or the impeller may be injected into the reactor vessel jet pumps.

An incident of this nature would cause significant unit downtime, and could be detected by the daily jet pump operability surveillance or by the loose parts (II) monitoring system. It is expected, however, that the unidentified leakage monitoring system would have detected the leak long before total failure of the thermowell had occurred.

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TEXT (If more space is required, use additional NRC Form 388A's) (17)

IV. CORRECTIVE ACTIONS

Following the discovery of the cracked thermowell, the thermowell and its associated RTD were promptly replaced with identical units. Prior to installation of the new thermowell, in addition to vendor non-destructive examinations, a penetrant exam was performed on-site for information only. Further action taken to prevent future failures of this nature will be dependent upon SMAD's findings as to the cause of failure. The preventive measures taken will be included in the supplemental LER following SMAD's analysis of the failed thermowell. (AIP 1-84-67181)

V. PREVIOUS OCCURRENCES

No previous thermowell failures of this nature have occurred at LaSalle County Station.

VI. NAME AND TELEPHONE NUMBER OF PREPARER

D. A. Zoloty, 815/357-6761, extension 421.



Commonwealth Edison
LaSalle County Nuclear Station
Rural Route #1, Box 220
Marseilles, Illinois 61341
Telephone 815/357-6761

December 5, 1984

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

Dear Sir:

Reportable Occurrence Report #84-075-00, Docket #050-373 is being submitted to your office in accordance with 10CFR 50.73.

G. J. Diederich
Superintendent
LaSalle County Station

GJD/MLD/kg

Enclosure

xc: NRC, Regional Director
INPO-Records Center
File/NRC

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