Iowa Electric Light and Power Company

September 8, 1982
DAEC-82-625

Mr. James G. Keppler
Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

SUBJECT: Attachments For Licensee Event Report Updates
No. 81-014, 82-031 and 82-032

FILE: A-118a, TE-2

Dear Mr. Keppler:

This letter transmits the attachments for the subject Licensee Event Report Updates (letters DAEC-82-607, DAEC-82-608, and DAEC-82-610 dated September 7, 1982) which were inadvertently omitted from the original transmittals. Enclosed are the attachments for these reports.

Very truly yours,

Daniel L. Mineck
Plant Superintendent-Nuclear
Duane Arnold Energy Center

DLM/WMB/pc

Docket 50-331

Attachments

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

NRC Resident Inspector - DAEC

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DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Report Date: September 2, 1982

Reportable Occurrence No: 81-014

Corrective Action

The relief valves were disassembled, cleaned and reworked. The valves were subsequently retested and performed satisfactorily. The relief valves are Target Rock 67F-6X10 Safety Relief Valves.

The safety valve will be disassembled and reworked prior to retesting. The safety valve is a Dresser Industries model 3800 Spring Safety Valve. The surveillance test frequency will be increased such that this valve will again be tested during the next refueling outage.

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Report Date: September 2, 1982

Reportable Occurrence No.: 82-031

Event Description:

During normal operation while performing surveillance testing, the pressure differential switch which controls reactor building to suppression chamber vacuum breaker CV 4304 tripped at an out of specification value. The switch, PDS 4304, tripped at 0.9 psid. Technical Specification 3.7.A.3.a requires the setpoint to be 0.5 psid. PDS 4305, which controls redundant vacuum breaker CV 4305, was operating properly. There have been six previous similar occurrences (see AO 75-33, RO 77-55, RO 78-32, RO 79-18, RO 80-23, and RO 81-48).

Cause Description:

The cause is attributed to instrument drift. A contributing cause is the relatively large range of the switch, which results in decreased setpoint accuracy and difficulty in calibration. PDS 4304 is a Barton pressure differential switch Model 288A.

Corrective Action:

The switch was recalibrated and functionally tested with satisfactory results. To increase the accuracy or setpoint repeatability and make calibration less difficult, a design change has been initiated to decrease the range of switches PDS 4304 and 4305. This will be accomplished by replacing the bellows unit assembly on each switch. Installation of this design change is planned for the next refueling outage. Increased surveillance testing is continuing.

DUANE ARNOLD ENERGY CENTER

Iowa Electric Light and Power Company

Licensee Event Report - Supplemental Data

Docket No. 050-0331

Licensee Event Report Date: September 2, 1982

Reportable Occurrence No: 82-032

Event Description:

During normal operation, while performing surveillance testing on the "B" residual heat removal service water (RHRSW) subsystem, water was observed leaking from the "D" RHRSW pump air vent AV 4926D. The leakage indicated that discharge check valve V-46-11 for "D" RHRSW pump 1P-22D was leaking. The "D" RHRSW pump was declared inoperable. In accordance with Technical Specification 3.5.C.2 a 30-day Limiting Condition for Operation (LCO) was entered and the remaining subsystems of the RHRSW system were tested for operability. During this required surveillance testing, the "A" RHRSW pump 1P-22A failed to develop the rated discharge pressure at rated flow. Technical Specification 4.5.C.1.a requires a flow of 2400 gpm at 610 ft. TDH (264 psig). The flow for 1P-22A was found to be 2400 gpm at 261 psig. The "A" RHRSW pump was declared inoperable leaving the two redundant pumps, 1P-22B and 1P-22C, operable. The "A" and "C" RHRSW pumps supply cooling water to the "A" RHR heat exchanger while the "B" and "D" RHRSW pumps supply cooling water to the "B" RHR heat exchanger. The 30-day LCO was ended after two days. There have been no previous similar occurrences with RHRSW check valves. There have been four previous similar occurrences of low RHRSW pump discharge pressure. See RO 78-24, 78-34, 81-25 and 81-36.

Cause Description:

The check valve leak was caused by an eroded hinge pin set screw and a fractured tack weld on the hinge pin. The hinge pin worked loose allowing the valve disc to move off its seat, resulting in a poor seal. Low discharge pressure for pump 1P-22A was attributed to normal wear. Normal pump wear had caused excessive clearances to develop between the pump impeller and casing wear rings.

Corrective Action:

The original carbon steel hinge pin set screw on V-46-11 was replaced with a stainless steel set screw to preclude recurrence of set screw erosion. The hinge pin and set screw tack welds were replaced. V-46-11 is a 12 inch Anchor check valve. Discharge pressure was increased on 1P-22A by adjusting the impeller. 1P-22A is a Layne-Bowler model 16EHH centrifugal pump. Both check valve and pump were functionally tested satisfactory. The hinge pins and set screws on the remaining RHRSW pump discharge check valves will be inspected during the next refuel outage.

The Technical Specifications do not address the condition of one inoperable pump in each RHRSW subsystem. Technical Specification 3.5.C.2 addresses the condition of one inoperable pump in an RHRSW subsystem. Technical Specification 3.5.C.3 addresses the condition of one inoperable RHRSW subsystem. A Technical Specification change will be pursued to address the condition of one inoperable pump in each RHRSW subsystem.