



PERRY NUCLEAR POWER PLANT

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March 8, 1996
PY-CEI/NRR-2035L

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

Perry Nuclear Power Plant
Docket No. 50-440
LER 96-001

Gentlemen:

Enclosed is Licensee Event Report 96-001, Control Room Emergency
Recirculation System Technical Specification Time Limit Exceeded.

If you have questions or require additional information, please contact
Mr. James D. Kloosterman, Manager - Regulatory Affairs at (216) 280-5833.

Very truly yours,

for Donald C. Shelton

JRW:sc

Enclosure: LER 96-001

cc: NRC Project Manager
NRC Resident Inspector Office
NRC Region III

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Operating Companies
Cleveland Electric Illuminating
Toledo Edison

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NRC FORM 366
(4-95)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104

EXPIRES 04/30/98

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION
COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO
THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING
BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (IT-6 F33),
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.

FACILITY NAME (1)

Perry Nuclear Power Plant, Unit 1

DOCKET NUMBER (2)

05000440

PAGE (3)

1 OF 4

TITLE (4)

Control Room Emergency Recirculation System Technical Specification Time Limit Exceeded

| 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 |
| 02 | 09 | 96 | 96 | -- 001 | -- 00 | 03 | 08 | 96 | FACILITY NAME | DOCKET NUMBER 05000 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |

| OPERATING MODE (9) | POWER LEVEL (10) | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11) | | | |
|-----------------------|---------------------|---|-------------------|---|------------------|
| 5 | 000 | 20.2201(b) | 20.2203(a)(2)(v) | x | 50.73(a)(2)(i) |
| | | 20.2203(a)(1) | 20.2203(a)(3)(i) | | 50.73(a)(2)(ii) |
| | | 20.2203(a)(2)(i) | 20.2203(a)(3)(ii) | | 50.73(a)(2)(iii) |
| | | 20.2203(a)(2)(ii) | 20.2203(a)(4) | | 50.73(a)(2)(iv) |
| | | 20.2203(a)(2)(iii) | 50.36(c)(1) | | 50.73(a)(2)(v) |
| | | 20.2203(a)(2)(iv) | 50.36(c)(2) | | 50.73(a)(2)(vii) |
| | | OTHER Specify in Abstract below or in NRC Form 366A | | | |

LICENSEE CONTACT FOR THIS LER (12)

NAME

Keith R. Jury, Supervisor - Compliance

TELEPHONE NUMBER (Include Area Code)

(216) 280-5594

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPROS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPROS |
|-------|--------|-----------|--------------|------------------------|-------|--------|-----------|--------------|------------------------|
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SUPPLEMENTAL REPORT EXPECTED (14)

| YES (If yes, complete EXPECTED SUBMISSION DATE). | x NO | EXPECTED SUBMISSION | MONTH | DAY | YEAR |
|---|------|------------------------|-------|-----|------|
| | | | | | |

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On February 9, 1996, at 1145 hours, the Perry Nuclear Power Plant, Unit 1, was in a refueling outage with core alterations in progress. One of the two trains of the Control Room Emergency Recirculation system had been inoperable for seven days. Operations personnel failed to place the operable train in the Emergency Recirculation mode of operation as required by Technical Specification 3.7.2, Action b.1.

This event was caused by personnel error on the part of the Shift Supervisor and the Unit Supervisor. The Shift Supervisor was aware that additional action would be required at the end of seven days but failed to recognize that the end of the seven day period had been reached. The Unit Supervisor deviated from the normal practice of reviewing the applicable documentation, and as a result, did not recognize that additional action would be required at the end of the seven day period.

The Shift Supervisor and the Unit Supervisor have been counseled on their respective roles in the event. Licensed operators and Shift Technical Advisors will be trained on lessons learned from the event.

This event is being reported in accordance with 10CFR50.73(a)(2)(i)(B), as operation prohibited by Technical Specifications.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

I. Introduction

On February 9, 1996, at 1145 hours, operations personnel failed to place the operable subsystem (i.e., train) of the Control Room Emergency Recirculation system [VI] in the Emergency Recirculation mode of operation in accordance with Technical Specification (TS) 3.7.2, Action b.1. This event is being reported in accordance with 10CFR50.73(a)(2)(i)(B), as operation prohibited by Technical Specifications.

At the time of the event, the plant was in Operational Condition 5 (i.e., Refueling), with the reactor [RCT] at atmospheric pressure, and reactor coolant temperature at approximately 100 degrees Fahrenheit. Core alterations were in progress.

II. Event Description

On February 2, 1996, at 1145 hours, Operations Team 3 removed train A of the Emergency Closed Cooling and the Control Complex Chilled Water systems from service for outage-related maintenance. Removal of these trains from service rendered train A of the Control Room Emergency Recirculation system inoperable. Train B remained operable. With one train of the Control Room Emergency Recirculation system inoperable and the plant in Operational Condition 5, TS 3.7.2, Action b.1 requires that the inoperable train be restored to an operable status within seven days, or that the operable train be placed and maintained operating in the Emergency Recirculation mode.

Accordingly, Operations Team 3 initiated an Active Limiting Condition for Operation (ALCO) tracking sheet in accordance with Operations Administrative Instruction (OAI)-1701, "Tracking of LCOs." These tracking sheets contain a section for recording an "impact time," which is defined as the time and date when the respective LCO Action becomes required. An impact time of 1145 hours on February 9, 1996, was appropriately entered on the ALCO tracking sheet. The Action Requirement section of the tracking sheet indicated that train A of the Control Room Emergency Recirculation system had to be returned to service within seven days, otherwise train B had to be placed in the Emergency Recirculation mode.

During shift turnover later the same day, this ALCO was reviewed by the oncoming Operations Team 1 Shift Supervisor and Unit Supervisor in accordance with OAI-1701, and Plant Administrative Procedure (PAP)-0126, "Shift Relief and Turnover." The Shift Supervisor immediately recognized that, unless train A of the Control Room Emergency Recirculation system was returned to an operable status in seven days, train B would have to be placed in the Emergency Recirculation mode. The Unit Supervisor recognized that train A of the Control Room Emergency Recirculation system was inoperable, but did not review the Action Requirement section as was his normal practice, and as a result, did not recognize that additional action would be required in seven days.

During the period that this ALCO was in effect, Operations Team 1 rotated to the day shift. On February 9, 1996, when Operations Team 1 reviewed the ALCOs during shift turnover, the Operations Team 1 Shift Supervisor did not recognize that the impact time for TS 3.7.2 Action b.1. would occur during the current shift, and the Operations Team 1 Unit Supervisor still did not recognize that any further action was required for the Control Room Emergency Recirculation system. At approximately 1600 hours while reviewing the ALCO file for other reasons, the Shift Supervisor noted the ALCO pertaining to the Control Room Emergency Recirculation system, and realized that train B should have been placed in the Emergency Recirculation mode no later than 1145 hours. The Shift Supervisor directed that Control Room Emergency Recirculation train B be placed in the Emergency Recirculation mode of operation, which was completed at 1638 hours.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

III. Cause

This event was caused by personnel error on the part of the Shift Supervisor and the Unit Supervisor. The Shift Supervisor was aware that additional action would be required at the end of seven days but failed to recognize that the end of the seven day period had been reached. The Unit Supervisor did not review the Action Requirement section of the ALCO, and as a result, did not recognize that additional action would be required at the end of the seven day period.

There were secondary barriers that could have identified the needed action but did not. Although OAI-1701 assigns responsibility for LCO tracking and compliance to the Shift Supervisor and the Unit Supervisor, the Supervising Operator and Shift Technical Advisor (STA) are also procedurally required to review the ALCOs during shift turnover. The Shift Technical Advisor turnover checklist includes specific provisions for tracking ALCOs and their impact time. However, the initial STA checklist entry for this ALCO was incorrect, in that the LCO entry time was listed rather than the impact time. Although the Supervising Operator's primary responsibility is to assure that Control Room activities do not compromise the operability of redundant equipment, his review of the ALCO did not identify the impact time.

One additional discrepancy was identified that could have contributed to the Unit Supervisor's failure to recognize the need for additional action. The "Equipment Out of Service" section of the Unit Supervisor Turnover Checklist did not specifically identify train A of the Control Room Emergency Recirculation system as being out of service. Only the Emergency Closed Cooling and the Control Complex Chilled Water trains needed to support operation of train A of the Control Room Emergency Recirculation system were identified on the checklist. If the Equipment Out of Service section had included train A of the Control Room Emergency Recirculation system as being out of service, it may have caused the Unit Supervisor to conduct further investigations during the seven days that elapsed prior to exceeding the impact time.

IV. Safety Analysis

The function of the Control Room Heating, Ventilation, and Air Conditioning system is to provide cooling, heating, ventilation, and when required, smoke removal for the control room equipment areas and office. In the Emergency Recirculation mode, the Control Room Emergency Recirculation system provides protection for Control Room personnel against toxic gas, and against airborne radiation hazards in accordance with the requirements of 10 CFR 50 Appendix A, Criterion 19. Operation in the Emergency Recirculation mode is initiated automatically upon receipt of an emergency signal, such as a loss of coolant accident, loss of offsite power, or high airborne radiation levels, or can be initiated manually. Although an automatic initiation will actuate both the A and B trains, only one train is required for adequate protection.

The events described in this LER, resulted in a period of less than five hours during which train B should have been operating in the Emergency Recirculation mode but was not. During this time, train B remained fully operable and was capable of automatically fulfilling its design function of maintaining the control room habitable if a fuel handling accident had occurred. Even if operation in the Emergency Recirculation mode failed to initiate automatically, operators would have been procedurally alerted to the failure and could have initiated Emergency Recirculation manually. Therefore, this event had minimal safety significance.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

V. Similar Events

Similar events were identified in two other LERs.

LER 92-021-00 documents an event in which an Average Power Range Monitor [MON] calibration was not performed within 12 hours after exceeding 25% power, in accordance with Technical Specifications. The event was caused by the temporary misplacement of a Potential LCO tracking sheet combined with poor communication, inattention to detail, and failure to follow procedure. The current event did not result from a lost tracking sheet, but did involve inattention to detail. The corrective action for the current event includes emphasizing the need for thorough reviews.

LER 94-013-00 documents an event in which a containment isolation valve [ISV], which had been closed and deenergized in preparation for core alterations, was subsequently re-energized for testing but was not re-deenergized as required prior to actually starting core alterations. The event was caused by a weakness in the program for tracking LCOs. This differs from the current event which resulted from personnel error rather than from a programmatic weakness. The differences between this event and the current event are such that the previous corrective actions could not reasonably have been expected to prevent the current event.

VI. Corrective Actions

1. The Shift Supervisor has been counseled on the need to thoroughly fulfill his assigned responsibilities without reliance on the Unit Supervisor, even though the Unit Supervisor may have identical responsibilities.
2. The Unit Supervisor has been counseled on the need to thoroughly review and research issues prior to deciding whether additional actions are required, particularly if incomplete or distracting information has been provided.
3. Training on this event will be provided to licensed operators and STAs. The training will emphasize the need to thoroughly review and understand ALCOs and any associated impact times, and the actions needed to assure compliance with Technical Specifications. It will also stress the need to maintain independence when conducting reviews. This training will be incorporated into the next licensed operator requalification training cycle, and will be completed no later than May 31, 1996.

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