



**CENTERION
ENERGY**

PERRY NUCLEAR POWER PLANT

10 CENTER ROAD
PERRY, OHIO 44081
(216) 259-3737

Mail Address:
P.O. BOX 97
PERRY, OHIO 44081

Robert A. Stratman
VICE PRESIDENT - NUCLEAR

January 8, 1993
PY-CEI/NRR-1595 L

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

Perry Nuclear Power Plant
Docket No. 50-440
Reply to Notice of Violation


Gentlemen:

This letter acknowledges receipt of the Notice of Violation contained within Inspection Report 50-440/92022 dated December 10, 1992. The report identifies areas examined by Region III Inspectors from October 20 through November 20, 1992.

Our response to the Notice of Violation, which specifically documented a failure to enter Technical Specification 3.0.3 and take the necessary action within one hour, is provided in Attachment 1. Additionally, because significant activities and communications between Perry Organization and the NRC transpired following the initial failure to enter TS 3.0.3, further analysis of all aspects of this event was documented in LER 92-022, which is provided as Attachment 2.

If you have any questions, please feel free to call.

Sincerely,


Robert A. Stratman

RAS:TSH:ss

120091

Attachments

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

Operating Companies
Cleveland Electric Illuminating
Intertec Edison

9301130032 930108
PDR ADDCK 05000440
G PDR

Handwritten initials/signature

RESPONSE TO NOTICE OF VIOLATION

50-440/92022-01

Restatement of Violation

Technical Specification 3.0.3 requires, in part, that when a limiting condition for operation is not met, except as provided in the associated action requirements, action shall be initiated within 1 hour to place the unit in an operational condition in which the specification does not apply.

Contrary to the above, on November 5, 1992, upon not being able to comply with the limiting condition for operation action requirements of Technical Specification 3.6.1.2, action was not initiated within 1 hour to place the unit in Operational Condition 4, COLD SHUTDOWN, where TS 3.6.1.2 does not apply.

Reason for the Violation

On November 5, 1992, Surveillance Instruction (SVI-M14-T9313) "Type C Local Leak Rate Test (LLRT) of 1M14 Penetration V313" was being performed pursuant to Technical Specification 4.6.1.8.4. When the measured leakage rate was added to the existing total combined Secondary Containment bypass leakage, the allowable leakage rate defined by Technical Specification (TS) 3.6.1.2 was exceeded. Control Room personnel recognized that Secondary Containment Bypass leakage exceeded the value specified in TS 3.6.1.2; however, because Surveillance Requirement 4.6.1.2.i referred to 4.6.1.8, Operators considered it appropriate to enter the ACTION requirements for TS 3.6.1.8, which required the valve to be restored to OPERABLE with 24 hours or be in HOT SHUTDOWN with the next 12 hours and COLD SHUTDOWN within 24 hours. Application of the ACTION requirements of TS 3.6.1.8 in lieu of the ACTION requirements of TS 3.6.1.2 resulted in the failure to initiate shutdown activities within one hour as required by TS 3.0.3.

The failure to apply Technical Specification 3.0.3 was attributed to inadequate knowledge of Technical Specification requirements and inattention to detail. A factor contributing to the confusion and misinterpretation of the Technical Specification was the lack of an applicable action statement for Operational Condition 1 in Technical Specification 3.6.1.2.

Corrective Actions Taken and Results Achieved

The sealing material of the Containment Purge Supply inboard isolation valve was tightened to the valve disc. By approximately 2230 the penetration leakage was substantially reduced and the total combined Secondary Containment bypass leakage rate was restored to within allowable Technical Specification 3.6.1.2 limits. At 0605 on November 6, the containment isolation valves were declared operable.

Actions to Avoid Further Violations

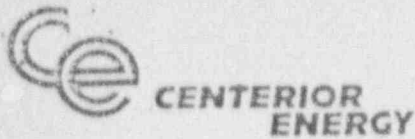
All parties involved in the Technical Specification evaluation have been counseled with respect to verbatim compliance with Technical Specifications. Operations Section Management issued a directive on December 3, 1992,

explaining the correct application of TS 3.6.1.2 and its relationship to TS 3.6.1.8 and TS 3.0.3. All personnel involved in the event have been made aware of the correct actions that should have been taken in this situation.

As part of the operator requalification program, all licensed operators will be trained regarding the application of Technical Specification ACTION requirements, the use of TS 3.0.3, and the specific details of this event. As a result of a Human Performance Enhancement System (HPES) evaluation performed for this event, Surveillance Instruction (SVI M14-T9313) will be revised to reflect more clearly that the leakage results must be evaluated for compliance with TS 3.6.1.2 as well as TS 3.6.1.8. Additionally, changes to Technical Specification 3.6.1.2 are being evaluated to clarify the action to be taken for leakage exceeding the specified limits during Operational Conditions 1, 2, and 3.

Date When Full Compliance Will Be Achieved

Full compliance with the requirements cited in this violation was achieved at 0605 on November 6, 1992 when the affected containment isolation valves were declared operable and the Limiting Condition for Operation for Technical Specification 3.6.1.2 was met.



PERRY NUCLEAR POWER PLANT

10 CENTER ROAD
PERRY, OHIO 44081
(216) 259-3737

Mail Address:
PO. BOX 97
PERRY, OHIO 44081

Michael D. Lyster
VICE PRESIDENT - NUCLEAR

December 4, 1992
PY-CEI/NRR-1585 L

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

Perry Nuclear Power Plant
Docket No. 50-440
LER 92-022

Dear Sir:

Enclosed is Licensee Event Report 92-022 for the Perry Nuclear Power Plant.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Steven F. Lyster for MDL'.

Michael D. Lyster

MDL:TSH:ss

Enclosure: LER 92-022

cc: NRC Project Manager
NRC Resident Inspector
NRC Region III

92-12070373
781

NRC FORM 366A
15-921

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95LICENSEE EVENT REPORT (LER)
TEXT CONTINUATIONESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS
INFORMATION COLLECTION REQUEST: 30.0 HRS. FORWARD
COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION
AND RECORDS MANAGEMENT BRANCH (INRMB 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.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Perry Nuclear Power Plant, Unit 1	05000 440	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 6
		92	- 022 -	00	

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

I. Introduction

On November 5, 1992, at 1600, the Secondary Containment Bypass Leakage exceeded the requirements stated in Technical Specification (TS) 3.6.1.2, and action requirements of Technical Specifications were subsequently exceeded. At the time of the event, the plant was in Operational Condition 1 at 95 percent of rated thermal power. The reactor pressure vessel (RPV) was at 1015 psig and saturated conditions. This event is being reported under the requirements of 10CFR50.73(a)(2)(i)(B).

II. Event Description

At 600 on November 5, 1992, Surveillance Instruction (SVI-M14-T9313) "Type C Local Leak Rate Test (LLRT) of 1M14 Penetration V313", was performed pursuant to Technical Specification 4.6.1.8.4. When the as found leak rate of 3130 standard cubic centimeters per minute (sccm) was added to existing leakage, the total combined allowable Secondary Containment bypass leakage rate as defined by Technical Specification 3.6.1.2 (0.0504 La) was exceeded. The Control Room was notified by testing personnel and troubleshooting of the excessive leakage began immediately.

The penetration leakage rate did not exceed the limitations for containment purge valves with resilient material seals, as specified in Technical Specification 4.6.1.8.4. However, because Containment Leakage TS Surveillance Requirements referred to Surveillance Requirements 4.6.1.8.3 and 4.6.1.8.4, operators applied the ACTION statement of 3.6.1.8. These ACTION requirements provide 24 hours to restore the inoperable valve to OPERABLE status or require the plant be in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. The failure to recognize the applicability of the ACTION requirements of TS 3.6.1.2 resulted in the failure to initiate shutdown activities within one hour as required by TS 3.0.3.

The control room contacted Licensing personnel at approximately 1730 for assistance in determining the reportability of the event, and continued to apply the ACTION requirements for an inoperable containment purge valve (TS 3.6.1.8). After initially concurring with the Control Room actions, Licensing personnel identified the potential applicability of TS 3.6.1.2, and because of the lack of an appropriate ACTION statement, the need to apply the shutdown requirements of TS 3.0.3. Because of confusion regarding the Technical Specifications, and the potential need for a Temporary Waiver of Compliance, discussions with the NRC Project Manager were initiated at approximately 2015. At approximately 2030, the applicability of the various TS were discussed with Control Room and Operations Management personnel. Prior to implementation of any of the shutdown requirements of TS 3.0.3, Licensing personnel and the NRC Project Manager concluded that immediate shutdown under TS 3.0.3 was not necessary, and that it

NRC FORM 366A
(5-92)

U.S. NUCLEAR REGULATORY COMMISSION

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MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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Perry Nuclear Power Plant, Unit 1	05000440	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 6
		92	022	00	

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was appropriate to continue in the ACTION statements of TS 3.6.1.8. At approximately 2200, the NRC Resident Inspector was notified of the event that had transpired, and of the determinations made. By approximately 2230 troubleshooting activities had reduced the leakage to approximately 200 SCCM, well within Technical Specification limitations.

The leakage was attributed to the Containment Purge [VA] supply inboard isolation valve [ISV]. Correction of the leakage required minor adjustment to the screws securing the sealing material to the valve disc. Performance of SVI-M14-T9313 measured the leakage for Penetration V313 to be 26.53 sccm, and at 0605 on November 6 the containment isolation valves in penetration V313 were declared operable.

During the afternoon of November 6, Region III personnel and the Project Manager notified Plant Management that the Technical Specification Branch (NRR) had reviewed the event and determined that the appropriate action had not been taken. At 1830 on November 6, a courtesy ENS notification was made to the NRC regarding the missed Technical Specification 3.0.3 entry.

III. Cause Analysis

The cause of the LLRT failure was a component malfunction. The containment purge supply penetration is leak tested every 92 days in accordance with Technical Specifications 4.6.1.8.3 and 4.6.1.8.4. The penetration successfully passed LLRT surveillances on May 13, 1992, following maintenance on the supply inboard isolation valve actuator, and again on August 4, 1992. The inboard Containment Purge isolation valve (Henry Pratt Co., Model 1200) remained closed until the containment purge system was operated in refuel ventilation mode during a plant shutdown between October 23 and 29, 1992. Although operating this valve should not have impacted its sealing ability, it is believed that the sealing material loosened from the disc and the valve had been leaking since being closed on October 29, 1992. Additionally, it was noted during troubleshooting that the valve traveled slightly too far into the seat, possibly contributing to the penetration leakage.

The failures to initially apply Technical Specification 3.0.3 entry and the subsequent conclusion that the appropriate course of action had been taken was attributed to multiple personnel errors, related to inadequate knowledge of Technical Specification requirements, inattention to detail, and inadequate communication.

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				92	022
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					00
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1. Control Room personnel recognized that Secondary Containment Bypass leakage exceeded the value specified in TS 3.6.1.2. However, because of the lack of applicable ACTION statements for Operational Condition 1, and because Surveillance Requirement 4.6.1.2.1 referred to 4.6.1.8, ACTION requirements for TS 3.6.1.8 were considered to be appropriate.
2. Although the leakage values were discussed, Control Room and Licensing personnel failed to identify that the leakage did not exceed the value specified for Containment Purge valve leakage in TS 4.6.1.8.4. The perception that the valves were inoperable under TS 4.6.1.8.4, led to the assumption that TS 3.6.1.8 contained the appropriate Technical Specification ACTION statement to apply.
3. All Plant and NRC personnel involved in the November 5 evaluation of Technical Specification applicability improperly concluded that because the actions of TS 3.6.1.8 were being applied to limit plant operation with degraded valve performance, the ACTION requirements of TS 3.6.1.2 did not apply.
4. Licensing personnel improperly contacted only the NRC Project Manager for interpretation of the Technical Specification requirements. Although it was not the intent of the plant staff to exclude Regional personnel from the situation, because a mutually agreeable conclusion was reached following discussions with the Project Manager, the Resident Inspector was only notified after the evaluations were made.

A significant contributing factor to all of the above errors is the inadequacy of the ACTION requirements of TS 3.6.1.2. Although the APPLICABILITY of the LCO is OPERATIONAL CONDITIONS 1, 2* and 3 (* indicating Special Test Exceptions), the ACTION statement directs the leakage to be restored to within specified limits "... prior to increasing reactor coolant system temperature above 200 (degrees) F." The lack of an ACTION statement appropriate for power operation prompted the personnel involved to believe that appropriate guidance for the situation was to be found elsewhere in the Technical Specifications. Additionally, the confusion regarding the proper interpretation of TS 3.6.1.2 caused Licensing staff to contact the Project Manager for assistance in understanding the specification, rather than notifying the Resident Inspector for assistance with compliance requirements.

IV. Safety Analysis

Secondary containment is designed to collect the primary containment leakage during and following a postulated design basis accident, delaying release to the environment until after processing through the Annulus Exhaust Gas Treatment system [VC]. This assures that the resultant doses are less than the values set

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<p>forth in 10CFR100 for offsite areas and in 10CFR50, General Design Criterion 19 for the control room. The Technical Specification maximum allowable combined leakage rate from potential secondary containment bypass leakage sources is 0.0504 La (0.75 times the amount assumed in the USAR Chapter 15 accident analysis). The valve identified in this report is part of the Secondary Containment bypass leakage pathway. Although the Technical Specification allowable leakage was exceeded, the leakage rate identified during the performance of this LLRT was not in excess of the USAR analytical assumptions.</p> <p>Additionally, the redundant outboard Containment Purge isolation valve remained closed and leak tight throughout this event. Therefore, this event is considered not to be safety significant. Previous LLRT surveillances were reviewed for similarity to this event and no prior surveillance failures were found to have caused Technical Specification 3.6.1.2 to be exceeded in Operational Conditions 1, 2 or 3.</p> <p>V. Corrective Action</p> <p>In order to reduce Containment Purge isolation valve leakage, the valve disc sealing material was tightened and the leakage reduced to acceptable levels as demonstrated by SVI-M14-T9313. The valve travel will be adjusted when the plant is in an Operational Condition where the valve can be stroked. Additionally, entries were made into the Potential Limiting Condition for Operation tracking system requiring LLRT and stroke time surveillances to be performed prior to handling irradiated fuel or entering Operational Conditions 1, 2 and 3 following shutdown conditions. This additional testing will assure the valve continues to comply with Technical Specifications 3.6.1.8 and 3.6.1.2 and will allow the valve's performance following operation to be evaluated.</p> <p>All parties involved in the Technical Specification evaluation (Control Room staff, Operations management, Licensing personnel) were involved in the follow-up investigation for the event and have been counseled with respect to verbatim compliance with Technical Specifications and the need for detailed communication. Appropriate plant staff members have also been counseled regarding the need for timely notification of the NRC Resident Inspector for all situations requiring NRC assistance in determining Technical Specification compliance requirements. A Human Performance Enhancement System (HPES) evaluation is being performed for this event to identify any additional causes or corrective actions.</p> <p>All licensed operators and appropriate Licensing personnel will be trained regarding the application of Technical Specification ACTION requirements, and the use of TS 3.0.3. The specific details of this event will be reviewed with</p>					

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licensed and non-licensed operators as part of routine operator requalification training. Finally, changes to Technical Specification 3.6.1.2 will be evaluated to clarify the actions to be taken for excessive leakage during Operational Conditions 1, 2, and 3.

Energy Industry Identification System Codes are identified in the test as [XX].