



Nebraska Public Power District

COOPER NUCLEAR STATION
P.O. BOX 96, BROWNVILLE, NEBRASKA 68321
TELEPHONE (402)825-3811
FAX (402)825-5205

NLS960197

October 18, 1996

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

Dear Sir:

Cooper Nuclear Station Licensee Event Report 96-012 is forwarded as an attachment to this letter.

Sincerely,

M. F. Peckham
Plant Manager

/bv

Attachment

cc: Regional Administrator
USNRC - Region IV

Senior Project Manager
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector
USNRC - Cooper Nuclear Station

NPG Distribution

INPO Records Center

W. Turnbull
MidAmerica Energy

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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 (16 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)

COOPER NUCLEAR S ATION

DOCKET NUMBER (2)

05000298

PAGE (3)

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TITLE (4)

Control Room Emergency Filter System Inoperability Due to Inappropriate Actuation Setting.

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
09	18	96	96	-- 012 --	00	10	18	96	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
POWER LEVEL (10)		100	20.2201(b)		20.2203(a)(2)(v)		<input checked="" type="checkbox"/>		50.73(a)(2)(i)	50.73(a)(2)(viii)
			20.2203(a)(1)		20.2203(a)(3)(i)				50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)				50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)		20.2203(a)(4)				50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)		50.36(c)(1)				50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)		50.36(c)(2)				50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

William R. Victor, Licensing and Compliance Specialist

TELEPHONE NUMBER (Include Area Code)

(402) 825-3811

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES
(If yes, complete EXPECTED SUBMISSION DATE).

X NO

EXPECTED
SUBMISSION
DATE (15)

MONTH DAY YEAR

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

On September 18, 1996, it was established that the high radiation actuation setpoint for the Control Room Vent Monitor (CRVM) had been maintained above the Cooper Nuclear Station (CNS) Technical Specification (TS) setting limit. CRVM operability is required to support the operability of the Control Room Emergency Filter System (CREFS) per TS 3.2.D.4 and 3.12.A.1. Despite this inoperability, CREFS was nevertheless determined to have been capable of performing its accident mitigation function.

The cause of this condition was the previous interpretation that the TS setting of 4×10^3 counts per minute (cpm) meant "above background" radiation levels. While this may be a reasonable assumption, no documentation either from or to the Atomic Energy Commission during initial licensing has been found that supports (or refutes) this position. Corrective actions have been taken which: a) reset the CRVM setpoint to below the Technical Specification value, and b) validated that no other TS settings had been similarly set inappropriately. Additionally, the CNS conversion to the Improved Standard Technical Specifications is resolving the ambiguity of the current CRVM setting limit.

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

PLANT STATUS

The plant was operating at power at the time of discovery.

EVENT DESCRIPTION

Cooper Nuclear Station (CNS) Technical Specification (TS) 3.12.A.1 requires that CREFS [EIIS: VI] be operable concurrent with the operability of CRVM [MON] whenever Primary or Secondary Containment [NG] Integrity is required. The Technical Specification requirements for CRVM are in turn found in TS 3/4.2.D.4. The CRVM surveillances include performing quarterly Instrument Calibrations (as defined in TS Definition 1.0.1.2). On September 17, 1996, it was discovered that this calibration did not include a verification of the TS Table 3.2.D CRVM high radiation actuation setpoint (surveilling the TS settings within the calibration surveillance interval is implicit in the CNS TS definition of Instrument Calibration, and explicit in IEEE-338, "Standard Criteria for the Periodic Surveillance Testing of Nuclear Power Generating Station Safety Systems"). CREFS was thereupon placed in its Emergency Bypass safety configuration which restored its operability (although CRVM remained inoperable). It was recognized that an annual non-Technical Specification testing procedure, in fact, verified the CRVM setpoint through an electronic calibration¹. However, on September 18, 1996, while attempting to restore CRVM to operability by performing this calibration, it was established that the instrument setpoints for the three monitored parameters (particulate, iodine, and gaseous radioactivity) were procedurally set above the 4×10^3 cpm setting limit of TS Table 3.2.D. The setpoint was subsequently revised and CRVM was electronically calibrated to actuate below the Technical Specification setting limit. This restored CRVM to operability.

SAFETY SIGNIFICANCE

CREFS is credited with mitigating the consequences of radiological accidents that could otherwise result in Control Room personnel exposures in excess of the limits of 10CFR50 Appendix A Criterion 19. The CNS Current Licensing Basis for Control Room operator dose assumes that the source term release is meteorologically dispersed from the release point, but that the resulting fraction is instantaneously transported to the Control Room. A conservative one minute delay is assumed for CREFS realignment to account for source term detection and completion time for the Emergency Bypass Mode configuration. However, even when adding an additional background radiation level to the TS setpoint, the source term seen at the CRVM will be above these combined levels. Therefore, the one minute CREFS actuation time is still bounding. For this reason, CREFS was still considered capable of performing its credited accident mitigation function. Accordingly, the safety significance of this condition was minimal.

1. It was subsequently observed that the electronic calibration had been successfully performed on June 19, 1996, which was within the current quarterly surveillance interval. While the setpoint periodicity discrepancy is being pursued within the CNS Corrective Action Program, it does not of itself constitute a reportable condition under 10CFR50.73(a)(2)(i)(B).

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

CAUSE

The historical setpoint records have consistently interpreted the CRVM Technical Specification setting as being in addition to background radiation. The CNS draft Technical Specifications were submitted to the Atomic Energy Commission (AEC) on May 10, 1973 for review and comment. This submittal did not include a CRVM setting limit. On January 18, 1974, the AEC issued the CNS Facility Operating License, which included the final Technical Specifications. The approved Technical Specifications included the setting limit of 4×10^3 cpm. No documentation has been found that explains the basis for this particular value. In the absence of traceable clarifying information, it was inappropriate to have judged this setting as exclusive of background radiation levels.

CORRECTIVE ACTION

The CRVM setpoint was adjusted to below the Technical Specification value which returned it to operability. A 100% validation was performed of the other Technical Specification required settings which confirmed that no other examples of excessive setpoints existed. Finally, CNS is converting to the Improved Standard Technical Specifications which will replace the ill-defined 4×10^3 cpm setting with a well-defined plant-specific Allowable Value.

SIMILAR EVENTS

- LER 91-006 4160 Volt Loss of Voltage Relay Setpoint Non-compliance With Incorrectly Stated Technical Specification Requirements Determined During Design Basis Reconstitution Activities.
- LER 94-012 Technical Specification Non-compliance For the HPCI System Due To a Setpoint Discrepancy Associated With the Low Steam Line Isolation Pressure.

The following table identifies those actions committed to by the District in this document. Any other actions discussed in the submittal represent intended or planned actions by the District. They are described to the NRC's information and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

[illegible]