

February 19, 2003

10 CFR 50.73

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

PALISADES NUCLEAR PLANT
DOCKET 50-255
LICENSE NO. DPR-20
LICENSEE EVENT REPORT 02-003, INOPERABLE CONTAINMENT HYDROGEN
MONITORS

Licensee Event Report (LER) 02-003 is attached. The LER describes the discovery of containment hydrogen monitors being inoperable for a period of time in excess of the Technical Specification allowed outage time. This occurrence is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

SUMMARY OF COMMITMENTS

This letter contains no new commitments and no revisions to existing commitments.



Douglas E. Cooper
Site Vice-President, Palisades

CC Regional Administrator, USNRC, Region III
Project Manager, USNRC, NRR
NRC Resident Inspector, Palisades

Attachment

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME PALISADES NUCLEAR PLANT	2. DOCKET NUMBER 05000255	3. PAGE 1 OF 4
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4. TITLE
INOPERABLE CONTAINMENT HYDROGEN MONITORS

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
12	21	2002	2002	003	00	02	19	2003	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)			
	20 2201(b)	20 2203(a)(3)(ii)	50 73(a)(2)(ii)(B)	50 73(a)(2)(ix)(A)
10. POWER LEVEL 100	20 2201(d)	20.2203(a)(4)	50 73(a)(2)(iii)	50 73(a)(2)(x)
	20 2203(a)(1)	50.36(c)(1)(i)(A)	50 73(a)(2)(iv)(A)	73.71(a)(4)
	20 2203(a)(2)(i)	50 36(c)(1)(ii)(A)	50 73(a)(2)(v)(A)	73.71(a)(5)
	20 2203(a)(2)(ii)	50 36(c)(2)	50 73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A
	20 2203(a)(2)(iii)	50 46(a)(3)(ii)	50 73(a)(2)(v)(C)	
	20.2203(a)(2)(iv)	50 73(a)(2)(i)(A)	50 73(a)(2)(v)(D)	
	20.2203(a)(2)(v)	X 50 73(a)(2)(i)(B)	50 73(a)(2)(vii)	
	20 2203(a)(2)(vi)	50 73(a)(2)(i)(C)	50 73(a)(2)(viii)(A)	
20 2203(a)(3)(i)	50 73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)		

12. LICENSEE CONTACT FOR THIS LER

NAME Barb Dotson, Regulatory Analyst	TELEPHONE NUMBER (Include Area Code) (269) 764-2265
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
YES (if yes, complete EXPECTED SUBMISSION DATE) X NO				

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

On December 21, 2002, it was discovered during surveillance testing, that the pipe caps for two test taps on the right channel containment hydrogen monitor instrument lines were not installed. The open test taps rendered the right channel containment hydrogen monitor inoperable. The right channel containment hydrogen monitor is believed to have been in this condition for approximately 20 months, exceeding the 30-day completion time of Technical Specification 3.3.7.A for restoring an inoperable channel of containment hydrogen monitoring to operable status. A review of the status of the left channel containment hydrogen monitor during the 20-month period that the right channel was inoperable revealed one occasion, in November 2002, during which the left channel was inoperable for approximately 9 days, exceeding the 72-hour completion time of Technical Specification 3.3.7.D for restoring one of two channels of containment hydrogen monitoring to operable status.

Upon discovery, the test tap pipe caps were reinstalled and the right channel containment hydrogen monitor was declared operable.

This occurrence is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

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

EVENT DESCRIPTION

On December 21, 2002, at approximately 2355 hours, with the plant in Mode 1, operating at 100% power, it was discovered during surveillance testing, that the pipe caps for two test taps on the right channel containment hydrogen monitor [IK] instrument lines were not installed. The open test taps would have precluded the ability of the right channel containment hydrogen monitor to obtain a representative post-accident containment atmospheric sample, rendering the right channel containment hydrogen monitor inoperable. The right channel containment hydrogen monitor is believed to have been in this condition for approximately 20 months, exceeding the 30-day completion time of Technical Specification 3.3.7.A for restoring an inoperable channel of containment hydrogen monitoring to operable status.

A review of the status of the left channel containment hydrogen monitor during the 20-month period that the right channel was inoperable revealed one occasion, in November 2002, during which the left channel was inoperable for approximately 9 days, exceeding the 72-hour completion time of Technical Specification 3.3.7.D for restoring one of two channels of containment hydrogen monitoring to operable status. All other occasions of left channel containment hydrogen monitor inoperability during the 20-month period were of durations less than the allowed 72 hours.

This occurrence is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

Upon discovery, the test tap pipe caps were reinstalled and the right channel containment hydrogen monitor was declared operable.

CAUSE OF THE EVENT

The right channel test tap pipe caps were apparently not reinstalled during the restoration portion of the containment integrated leak rate test, occurring during the 2001 refueling outage in May 2001. The cause of the failure to reinstall the test tap pipe caps is attributable to human performance individual failures involving inadequacies in procedure compliance, self-checking and independent verification. Contributing causes were that the subject test tap pipe caps were not labeled and not included on the system checklist.

The left channel containment hydrogen monitor was removed from service in November 2002 for maintenance and calibration under the assumption that the right channel containment hydrogen monitor was operable.

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

CORRECTIVE ACTIONS

Operator performance expectations for procedure compliance, self-checking and independent verification will be reinforced. The subject test tap pipe caps will be labeled and added to the system checklist.

SAFETY SIGNIFICANCE

The containment hydrogen monitors are used to detect the buildup of hydrogen in the containment following an accident. This is accomplished by placing in service at least one of the two containment hydrogen monitoring channels (left channel procedurally preferred). If measured hydrogen concentration in the containment reaches between 1% and 3%, then procedures direct at least one hydrogen recombiner to be placed in service.

The analysis of record does not credit a hydrogen recombiner to be in service until 24 hours after event initiation. Given that in an applicable accident, there would be concurrent challenged indications for containment pressure, containment temperature, reactor core temperature, and/or reactor vessel water level, it is reasonable to assume that a hydrogen recombiner would be placed in service within 24 hours regardless of the existence of a valid containment hydrogen concentration indication from the containment hydrogen monitors. Rising radiation levels in the auxiliary building would also provide the operators an opportunity to identify the inoperable containment hydrogen monitor.

Additionally, recent analysis supporting proposed rulemaking for risk informed changes to 10 CFR 50.44, "Standards for combustible gas control in light-water-cooled power reactors," (Reference SECY-00-198 and SECY-02-0080) demonstrates that hydrogen recombiners serve little or no safety function in plants with large, dry containments. Since Palisades has a large, dry containment, this generic analysis is judged to be applicable.

The uninstalled test tap pipe caps also represented a potential radiological release path if the right channel containment hydrogen monitor had been placed in service following an accident involving an in-containment release of radioactive iodines. The calculated radiological release results for this condition are bounded by the integrated release in the existing analysis of record, given the expectation that the release path through the open test taps would be recognized and isolated within 12.5 hours of event initiation.

Based on the above, the safety significance of this event was minimal.

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

PREVIOUS SIMILAR EVENTS

None

NUCLEAR MANAGEMENT COMPANY
PALISADES NUCLEAR PLANT Fax Cover Sheet

Date: 2/20/03

Pages + Cover: 5

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Company: U. S. Nuclear Regulatory Commission

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From: Palisades Licensing

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Message: LICENSEE EVENT REPORT 02-003, INOPERABLE
CONTAINMENT HYDROGEN MONITORS