

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 05000483	PAGE (3) 1 OF 06
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TITLE (4)
Action Statement Improperly Entered When Fire Barrier Inspections Completed Late

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 NAMES		DOCKET NUMBER(S)
02	12	87	87	001	010	05	04	88			05000483

OPERATING MODE (9) 1

POWER LEVEL (10) 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11):

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(i)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)
<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
<input type="checkbox"/> 20.406(a)(1)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)(A)	
<input type="checkbox"/> 20.406(a)(1)(vi)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.406(a)(1)(vii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME John A. McGraw - Superintendent, Design Control	TELEPHONE NUMBER
	AREA CODE: 314 676-8153

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

CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE): NO

EXPTD SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

This report documents a failure to establish appropriate firewatches as the direct result of not completing the visual inspection of fire barrier penetration seals and fire rated assemblies within the specified time interval of Technical Specification (T/S) Surveillance 4.7.11.1. Precautionary hourly firewatch patrols were in place for an outage. It was assumed these patrols were adequate; however, further review indicated that appropriate firewatches were not established. Additionally, four fire rated assemblies were discovered deficient due to construction errors and the T/S firewatch requirements for these were therefore not met since receipt of the Operating License.

The cause of exceeding the surveillance late finish dates was due to utility non-licensed, management personnel error in the determination that the seals/assemblies were operable until proven inoperable by the surveillance inspection.

Appropriate personnel were counseled on the need to satisfy T/S action statements. Administrative programs were reviewed and enhanced to ensure proper, timely corrective maintenance of breached fire barriers. A review was conducted of other surveillances requiring long-term inspections of a large population of passive equipment.

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TEXT (if more space is required, use additional NRC Form 366A's) (17)

Introduction

This Licensee Event Report documents a failure to establish appropriate firewatches as the direct result of not completing the visual inspection of fire barrier penetration seals and fire rated assemblies within the specified time interval of Technical Specification (T/S) Surveillance 4.7.11.1. Precautionary hourly firewatch patrols were in place for an outage. It was assumed these patrols were adequate; however, further review indicated that appropriate firewatches were not established. Therefore, this incident is considered a condition prohibited by the plant's T/S's and is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B).

Description of Event

T/S Surveillance Requirement 4.7.11.1.c requires inspecting a 10% sample of fire barrier penetration seals, (1) inspecting an additional 10% sample if unsatisfactory seals are found, and so forth until a 10% sample with no unsatisfactory seals is found or a 100% inspection is completed. The late finish date for this inspection was 4/4/86, however the inspection was not started or completed by this date.

When the inspection of the seals had not been completed by 4/4/86, utility non-licensed, management personnel recognized that the T/S action statement requirements had to be imposed to comply with the plant's T/S's. However, rather than declaring the approximately 3900 seals inoperable, the seals were assumed operable until proven otherwise by the T/S surveillance inspection. The inspections were ultimately directed by management to include a 100% inspection of all fire seals. As a precautionary measure, hourly firewatch patrols were maintained throughout the plant during the inspection period. These hourly firewatch patrols had been initially established on 3/4/86 to support refueling activities but were continued due to this event. When an inoperable penetration seal was identified, appropriate firewatches (continuous or hourly) were posted or verified in place and work requests were initiated.

Reportability Evaluation

Per T/S 4.0.3 (Applicability of Surveillance Requirements), a failure to perform a surveillance requirement within the specified time interval constitutes a failure to meet the operability requirements.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

Therefore, when T/S Surveillance 4.7.11.1.c was not completed by the late finish date of 4/4/86, the fire barrier penetration seals should have been administratively declared inoperable and the requirements of the action statement imposed:

"With one or more of the above required fire barrier penetrations inoperable, within 1 hour establish a continuous firewatch on at least one side of the affected penetration, or verify the OPERABILITY of fire detectors on at least one side of the inoperable fire barrier and establish an hourly firewatch patrol."

Continuous firewatches were not established where required on or before 4/4/86. Additionally, hourly firewatch patrols were not established where required in all cases. The discovery of this condition was a result of a review on 2/12/87 of an internal incident report written on an unsatisfactory seal 131S0530⁽²⁾. Since the rooms adjacent to this seal do not contain fire detectors, a continuous firewatch was established on 1/16/87 in conjunction with the initiation of a work request to repair the seal. Seal 131S0530 was determined to be a construction deficiency and was without the required continuous firewatch from the receipt of the Operating License (OL).

A review was conducted of other T/S surveillances requiring long-term inspections of a large population of passive equipment (i.e. fire rated assemblies, fire detection instrumentation, fire doors⁽³⁾, Steam Generator tubes⁽⁴⁾, containment tendons, snubbers⁽⁵⁾, containment overcurrent protective devices⁽⁶⁾). This review identified that the visual inspection of the exposed surfaces of each fire rated assembly required by T/S Surveillance 4.7.11.1.a had not been satisfactorily completed within its late finish date of 6/6/86. Similar to the visual inspection of fire barrier penetration seals, the fire rated assemblies had not been declared inoperable; however, precautionary hourly firewatch patrols were maintained, while a 100% inspection was performed. There were 15 unsatisfactory fire rated assemblies identified upon the completion of the inspection on 7/23/86.

The appropriate firewatches for the 15 unsatisfactory fire rated assemblies were in place after 6/6/86. A review was conducted to determine if firewatches were required by T/S's from receipt of the OL to the late finish date (6/6/86) of the inspection for any fire rated assemblies deficient due to construction errors. This review identified four of the 15 assemblies as deficient due to such errors. These four assemblies had not been covered by T/S firewatches since receipt of the OL.

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

This incident is considered a condition prohibited by the plant's T/S's and is reported pursuant to 10 CFR 50.73(a)(2)(i)(B) for the following reasons:

1. When the late finish date of the seal inspection per T/S surveillance 4.7.11.1.c was exceeded, the seals were not declared inoperable but were assumed operable until proven otherwise by the inspection. The T/S Action Statement and T/S 4.0.3 were not properly satisfied.
2. The 100% seal inspection resulted in the identification of two seals as materially inoperable and which did not have the appropriate firewatch. Seal 131S0530 did not have the required continuous firewatch from receipt of the OL until it was identified on 1/16/87. Seal 132S0699 did not have the required hourly firewatch from 4/4/86 until it was identified on 1/13/87.
3. When the late finish date of the fire rated assembly inspection per T/S surveillance 4.7.11.1.a was exceeded, the assemblies were not declared inoperable but were assumed operable until proven otherwise by the inspection. The T/S Action Statement and T/S 4.0.3 were not properly satisfied.
4. Four of the 15 deficient fire rated assemblies were due to construction errors and the T/S Action Statement Firewatch requirements were not met from receipt of the OL until the late finish date (6/6/86) of the inspection. The remaining 11 deficient assemblies were either covered by firewatches since OL, met minimum separation criteria, or their deficiencies were deemed to have occurred on the discovery date with no evidence to conclude differently.

Root Cause

The failure to declare the seals and the fire rated assemblies inoperable and properly enter the T/S Action Statement after exceeding the late finish date was due to personnel error in the determination that the seals were operable until proven inoperable by the inspection.

The failure to take appropriate action for unsatisfactory seal 131S0530 and the four deficient assemblies was the result of inadequate determination of the construction status of this deficient penetration seal at the time of the initial surveillance completion in 1984.

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Corrective Actions and Actions to Prevent Recurrence

1. Appropriate plant personnel have been counseled that, regardless of the reason for inoperability, the T/S action statement requirements must be imposed in accordance with plant administrative controls when T/S equipment is inoperable.
2. A review was conducted of other surveillances requiring long-term inspections of a large population of passive equipment. The only additional deficiencies identified were the result of the fire rated assembly inspection discussed in the Reportability Evaluation section of this LER.
3. A review of the fire barrier work control process was completed and the fire barrier integrity control program was enhanced to ensure proper and timely corrective maintenance of breached fire barriers.

Safety Significance

A significant safety concern did not exist as a result of the failure to establish appropriate firewatches when the late finish date of the seal inspection was exceeded. This is based on the fact that only two seals were materially inoperable without the appropriate firewatch posted. For seal 131S0530, the affected barrier separated areas which contain negligible combustibles. For seal 132S0699, fire detection is available on one side of the affected barrier and negligible combustibles are contained on the other side.

The T/S Action Statement firewatch requirements for the 15 unsatisfactory fire rated assemblies were met from the late finish date (6/6/86) until completion of the 100% inspection and any assembly repairs. For the four unsatisfactory assemblies that were due to construction errors, fire detection was available on both sides of three of the four assemblies. The fourth assembly had detection on one side. Therefore, these conditions did not impact safe plant operation even though the T/S Action Statement requirements were not met between receipt of the OL and the late finish date (6/6/86) of the inspection. The penetration seal and the fire rated assembly T/S surveillances were satisfactorily performed on 8/10/87 and 9/28/87, respectively.

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TEXT (if more space is required, use additional NRC Form 308A's) (17)

Similar occurrences: LER 86-034-00 (10/8/86, ULNRC-1381) describes a failure to meet the T/S action statement requirements due to a failure to recognize the inoperability of fire protection equipment. However, LER 86-034-00 was associated with an inoperable suppression system compounded with a misleading alarm window engraving.

LER 86-007-02 (4/8/88, ULNRC-1751) describes deficiencies of internal conduit seals in fire barrier penetrations due to a programmatic deficiency in the construction process. Although LER 86-007-02 and LER 87-001-01 both involve discrepancies in fire barrier seals, the root causes are not considered the same. Consequently, LER 86-007-02 is not considered similar.

Footnotes

The system and component codes used below are from IEEE Standards 805-1983 and 803A-1983, respectively.

- (1) System - KP; Component - SEAL
- (2) System - KP; Component - DET
- (3) System - KP; Component - DR
- (4) System - AB; Component - TBG
- (5) Component - SNB
- (6) Components - FU, BKR



Callaway Plant

May 4, 1988

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

ULNRC-1768

Gentlemen:

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
FACILITY OPERATING LICENSE NPF-30
LICENSEE EVENT REPORT 87-001-01
ACTION STATEMENT IMPROPERLY ENTERED
WHEN FIRE BARRIER INSPECTIONS COMPLETED LATE

The enclosed Licensee Event Report is submitted as a supplemental report to LER 87-001-00 transmitted via ULNRC-1463, dated March 13, 1987. The results of the review of deficient fire rated assemblies due to construction errors is provided. An overall update to the event is also provided.

J. D. Blosser
J. D. Blosser
Manager, Callaway Plant

TPS/SEMe:jlh

Enclosure

cc: Distribution attached

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cc distribution for ULNRC-1768

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