

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Callaway Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 8 3	PAGE (3) 1 OF 0 5
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TITLE (4) **Tech Spec 3.8.1.1 Violation Due To Inoperable 'B' Train Emergency Exhaust System and Missed Tech Spec 4.7.7.b.2 Emergency Exhaust Surveillance**

EVENT DATE (5) 0 1 2 1 9 8			LER NUMBER (6) 9 8 - 0 0 1			REPORT DATE (7) - 0 1 0 3 1 0 9 9			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S) 0 5 0 0 0

OPERATING MODE (9) 1

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

20 402(b)	20 405(a)(1)(i)	20 405(c)	50 73(a)(2)(iv)	73 71(b)
20 405(a)(1)(ii)	20 405(a)(1)(iii)	50 36(c)(1)	50 73(a)(2)(v)	73 71(c)
20 405(a)(1)(iv)	20 405(a)(1)(v)	50 36(c)(2)	50 73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20 405(a)(1)(v)		X 50 73(a)(2)(i)	50 73(a)(2)(viii)(A)	
		50 73(a)(2)(ii)	50 73(a)(2)(viii)(B)	
		50 73(a)(2)(iii)	50 73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME H. D. Bono, Supervising Engineer, QA Regulatory Support	TELEPHONE NUMBER AREA CODE 5 7 3 6 7 6 - 4 4 2 8
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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) NO

EXPECTED SUBMISSION DATE (15) MONTH DAY YEAR

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

On 1/9/98 a 'B' Train Emergency Exhaust System (EES) charcoal test sample was submitted for laboratory analysis per Technical Specification (T/S) 4.7.7.b.2. On 1/21/98 at 0739 CST, the 'A' Emergency Diesel Generator (EDG) and the 'A' train Essential Service Water (ESW) systems were removed from service for a scheduled outage. Later on 1/21/98, laboratory analysis results for the charcoal samples were received indicating the 'B' EES was inoperable. This condition required entry into a 2 hour action statement per T/S 3.8.1.1, Action d.1. Due to system conditions, T/S 3.8.1.1, Action d.1 could not be met and a Notice of Enforcement Discretion was requested and received. During subsequent investigation, it was discovered that T/S 4.7.7.b.2 had been revised and neither EES train had been tested per the new methodology within 30 days of the T/S revision.

The cause of the failed T/S 4.7.7.b.2 surveillance was charcoal degradation. The failure to perform T/S 4.7.7.b.2 in the specified 30 days was due to a programmatic deficiency. On 1/22/98 at 1436 the 'A' EDG was declared operable and T/S 3.8.1.1, Action d.1 was exited. The 'A' and 'B' train charcoal was changed within the required 7-day action statement per Tech Spec 3.7.7. New administrative requirements will be implemented to preclude recurrence.

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

DESCRIPTION OF EVENT:

Emergency Exhaust System (EES)⁽¹⁾ Technical Specification (T/S) Surveillance Requirement 4.7.7.b.2 requires every 18 months the verification "within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM D-3803-1989 when tested at 30°C and 70% relative humidity, for methyl iodide penetration of less than 2%."

T/S 3.7.7 states "with one EES inoperable, restore the inoperable EES to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours."

T/S 3.8.1.1, Action d.1 requires that, with one diesel generator⁽²⁾ inoperable, verify that all required systems, subsystems, trains, components and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE. If these conditions are not satisfied within 2 hours, be in at least HOT STANDBY within the next 6 hours, and in COLD SHUTDOWN within the following 30 hours.

On 1/09/98 a charcoal test sample was removed from the 'B' Train EES and submitted for laboratory analysis in accordance with the above referenced T/S Surveillance Requirement 4.7.7.b.2. On 1/21/98, at 0739 CST, the 'A' Emergency Diesel Generator (EDG) and the 'A' train of Essential Service Water (ESW)⁽³⁾ were removed from service for a scheduled system outage. Later on 1/21/98, laboratory analysis results for the charcoal samples submitted on 1/09/98 were received. The results indicated that methyl iodide penetration was 2.45%, which exceeded the T/S 2% limit and subsequently required declaring the 'B' EES train inoperable. This decision was made by the licensed utility Shift Supervisor at 1400 CST thus placing Callaway in a two hour action statement per the requirements of T/S 3.8.1.1, Action d.1. Based on the status of work on the 'A' train components, and the time it would take to replace the charcoal in the 'B' train EES, it was apparent that the requirement to satisfy the condition of T/S 3.8.1.1, Action d.1 could not be met.

On 1/21/98 Callaway Plant requested a one-time notice of enforcement discretion to T/S 3.8.1.1, Action d. A 24-hour extension to the 2-hour allowance was requested to allow restoration of the 'A' Emergency Diesel Generator and 'A' Essential Service Water train. This request was verbally discussed with the NRC Region IV Office and Office of Nuclear Reactor Regulation and was verbally approved by the Deputy Regional Administrator on 1/21/98 at 1630 CST. On 1/22/98 at 1436 the 'A' EDG was declared operable and T/S 3.8.1.1, Action d. was exited. On 1/24/98, 'B' train charcoal replacement was completed, the 'B' train EES was restored to service and declared operable and T/S 3.7.7 was exited.

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

On 1/30/98, during a subsequent investigation into the root cause and contributing factors associated with this event, it was discovered that new test methodology ASTM D-3803-1989 was incorporated into T/S Surveillance Requirement 4.7.7.b.2 on 11/13/96 thus requiring implementation of this methodology within 30 days of issuance. Contrary to this requirement, T/S Surveillance Requirement 4.7.7.b.2 was not performed to the new methodology within the specified 30 days. Subsequently, the 'A' train EES was declared inoperable on 1/30/98 at 1130 CST. On 2/1/98 at 1438 CST the 'A' train EES charcoal replacement was completed and the 'A' train EES was declared operable.

Changes to test methodology had occurred since the performance of the last surveillance on the 'B' EES unit conducted 8/15/96. Operating license amendment 118 had changed the required test methodology from RDT-M16-1T to ASTM D-3803-1989. Though the amendment was approved by the NRC for issue on 11/13/96 and required implementation by 12/13/96, the normal frequency for performing the tests was not changed. During subsequent discussion with NRC personnel on 1/30/98 this was determined to be a missed surveillance and a violation of T/S. At that point, the 'A' EES filter adsorber unit was declared inoperable. Due to the turn around time on test results and the time necessary to change out the charcoal should it fail, it was determined to change the charcoal out rather than wait for charcoal test results. Test results received on 2/5/98 for the 'A' train indicated a penetration of 1.89% and 1.94%. Therefore the 'A' unit had been operable since previous testing on 10/9/96.

BASIS FOR REPORTABILITY:

These events are reportable per 10CFR50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

CONDITION AT TIME OF EVENT:

Mode 1, Power Operations – 77% power.

ROOT CAUSE:

1. The cause of the failed T/S 4.7.7.b.2 surveillance test was degradation of the charcoal.
2. The cause of the failure to perform the T/S 4.7.7.b.2 surveillance test per the new commitment to ASTM D3803-1989 requirements was a programmatic deficiency to identify the specified 30 day requirement referenced above.

CORRECTIVE ACTIONS:

1. Tech Spec 3.7.7 requirements were followed and the charcoal was changed within the required 7-day action statement. The newly installed charcoal has been tested to the ASTM D3803-1989 test method. The results indicated a penetration of 0.03%, which is well within the 2% requirements stipulated in T/S 4.7.7.b.2.

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2. The program for implementation of approved T/S amendments will be modified. This program will establish accountability and a method to identify, track and to positively closeout all items associated with implementation of each new amendment.
3. A review was conducted in February, 1998 of amendments issued since 1/1/93 (5 years, 46 amendments). The scope of this review was to ensure that procedures were revised within the implementation period and that surveillances were current and performed to the revised procedures. This review did not verify acceptability of surveillance results nor that past operability requirements were satisfied. No other cases were found where required T/S surveillance requirements were not satisfied within the allowed implementation period.

Subsequent to the review denoted above, a more thorough review of T/S amendments was completed by Quality Assurance engineers in March, 1999. This review included verifying that surveillance results were acceptable and that operability of plant equipment was established during amendment implementation. During this review one case was identified where equipment operability was not properly established within the allowed implementation period. This case is document d in LER 99-001-00.

SAFETY SIGNIFICANCE:

The current analysis for the EES for a Fuel Handling Accident and LOCA assumes a 90% efficiency. Testing the charcoal using ASTM D3803-1989 provides greater assurance that the charcoal absorbers will perform at an efficiency of at least 90%.

The laboratory test results obtained on 1/21/98 which indicated a methyl iodide penetration of 2.45% still supports an efficiency of the emergency exhaust train 'B' charcoal absorber of greater than 90%. Based on this, the absorber was fully functional to support the assumptions of Callaway's safety analysis and there was no increase in offsite or control room dose consequences for a fuel handling accident or LOCA. These are the only accidents that credit the EES.

The efficiency of the EES charcoal absorber had no impact on the calculated Callaway core damage frequency and was within Callaway design basis calculations. In addition, there is no impact on any release frequency calculated for the Callaway Level 2 probabilistic safety analysis, including large, early release frequencies.

These conditions therefore did not pose a threat to public health or safety.

PREVIOUS OCCURRENCES:

None.

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FOOTNOTES:

The system and component codes listed below are from IEEE Standard 805-1984 and 803A-1984, respectively.

1. System VL
2. System EK, Component DG
3. System BI