

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Calvert Cliffs, Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 3 1 8	PAGE (3) 1 OF 6
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TITLE (4) T. S. Surveillance Time Requirement Exceeded Resulting From the Inability to Verify Reproduced Previous STP Data Caused by a Lack of Adequate STP Control.

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		
03	23	89	89	005	00	04	24	89			
									DOCKET NUMBER(S) 0 5 0 0 0		

OPERATING MODE (9) 4

POWER LEVEL (10) 01010

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

20.402(b)	20.406(c)	50.73(e)(2)(iv)	73.1(b)
20.405(a)(1)(i)	50.36(e)(1)	50.73(e)(2)(v)	73.71(i)
20.405(a)(1)(iii)	50.36(e)(2)	50.73(e)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(e)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(e)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(e)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Craig D. Sly-Engineer, Licensing	TELEPHONE NUMBER 3 0 1 2 6 0 - 4 8 5 8
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRD5	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRD5

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)

ABSTRACT

On March 23, 1989, at 1745 hours, it was discovered that a surveillance test procedure (STP) to functionally test safety-related snubbers on Calvert Cliffs Unit 2 had been lost and reconstructed at a later date. Since a portion of the data could not be verified, the test procedure had to be considered invalid. Therefore, the Unit was found to have exceeded the maximum time interval allowed between surveillance tests. The last complete and satisfactory performance of this STP occurred on November 22, 1985. At the time of discovery the Unit was at 0% power in MODE 4 with reactor coolant system pressure at 280 PSIG and temperature at 265°F.

The cause of the event has been determined to be a lack of adequate control of completed original STPs prior to approval of results to prevent STP loss.

Immediate action was taken to place the Unit in compliance for the duration of the current refueling outage. Action is planned (performance of the surveillance procedure) to return the Unit to full compliance and allow restart after the refueling outage.

To prevent recurrence, procedural changes are being developed to inform personnel of the requirements for reproducing data and to reduce the likelihood of data being lost. All Surveillance Test Coordinators, System Engineers, and appropriate maintenance personnel shall be made aware of this event.

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

I. DESCRIPTION OF EVENT

On March 23, 1989, it was discovered that the previous completed snubber functional test procedure on file to satisfy the requirements of Technical Specifications (T.S.) 4.7.8.1.c and d for Calvert Cliffs Unit 2 was not adequate. A review of the functional test procedure showed that the reliability of the test data for the test performed during May 1987 were questionable. Therefore, the test was declared invalid and the appropriate T.S. ACTION Statement was entered. The next most recent previous Snubber Functional Test was completed on November 22, 1985, and its 18 month period of validity expired on May 25, 1987. During the period between May 25, 1987 and March 23, 1989, all safety related snubbers at Calvert Cliffs Unit 2 were effectively administratively inoperable. Per the ACTION Statement of T.S. 3.7.8.1, all systems supported by safety-related snubbers were also administratively inoperable.

Calvert Cliffs Unit 2 contains a total of 227 safety-related snubbers. There are ten different sizes of snubbers as measured by bore and stroke located throughout the plant on 15 different systems. The snubbers are designed to ensure the structural integrity of these safety-related systems is maintained during and following a seismic or other event which initiates severe dynamic loads.

Technical Specification 3.7.8.1 "SNUBBERS," requires that all safety-related snubbers are operable. This T.S. is applicable in MODES 1, 2, 3 and 4, and MODES 5 and 6 for snubbers located on systems required to be operable in those modes. The ACTION Statement for T.S. 3.7.8.1. states:

"With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status, and perform an engineering evaluation per Specification 4.7.8.1.b and c on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system."

In accordance with T.S. 4.7.8.1., snubbers are demonstrated operable by performance of the following augmented inservice inspection program, which includes:

1. Visual Inspections

Visual inspections verify that there are no visible indications of damage or impaired operability and that the snubber installation exhibits no visual indications of detachment from foundations or supporting structures. The frequency of the inspection interval varies inversely with the number of observed snubber failures. This frequency is based upon maintaining a constant level of snubber protection to systems.

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2. Functional Testing

A representative sample of 10% of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test once per 18 months during shutdown. For each snubber which does not meet the functional test acceptance criteria, an additional 5% of that type shall be functionally tested until no more failures are found or until all snubbers of that type have been functionally tested. This test is designed to provide assurance of snubber functional reliability by testing a representative sample of each snubber type.

3. Service Life Monitoring

A record of the service life of each snubber is maintained and reviewed at least once per 18 months to verify that the indicated service life has not and will not be exceeded prior to the next scheduled snubber service life review. The service life is evaluated via manufacturer input and information obtained through consideration of snubber service conditions and associated installation and maintenance records. This requirement ensures that each snubber periodically undergoes a performance evaluation with respect to its age and operating conditions.

On March 23, 1989, a discrepancy was discovered in the last snubber functional test for Unit 2. The snubber functional test requirement is satisfied by performing Surveillance Test Procedure (STP) No. M-11-2. The STP cover sheet indicated that the test completion date was May 7, 1987. However, data recorded within the procedure had not been accepted until September 29, 1987. Further examination showed that some of the other sign-off dates on the STP cover sheet were also very unusual. The "Remarks" section of the cover sheet indicated that the original STP had been lost and that one of the sign-off dates was not applicable. There was not enough additional information in the "Remarks" section to allow reviewers to recreate exactly where the new data was obtained.

The Surveillance Test Coordinator (STC) for the 1987 STP recalled that the STP had indeed been lost and that it had been reproduced from other sources. The STC could not recall from what sources he obtained the reproduced data or exactly how the procedure had become lost.

Once the data in the STP was determined to be questionable, immediate attempts were made to verify the data. Each set of data in the STP contained a reference to a Maintenance Order (MO) Number. All of the referenced MOs were retrieved from plant history files. Out of a total of 47 snubbers tested in 1987, data recorded on the referenced MO supported 41 data entries in the reproduced STP. However, four of the referenced MOs contained no data at all, one of the referenced MOs contained data which were different from that recorded in the reproduced STP, and one set of data was correct but the wrong snubber serial number was referenced on its MO. Further attempts to verify the six questionable data entries proved unsuccessful. These attempts continued for approximately 24 hours after initial discovery of the event.

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Upon concluding that the six questionable data entries were non-verifiable, the Control Room was notified and the Unit was placed in the ACTION STATEMENT of Technical Specification 3.7.8.1. The ACTION STATEMENT was entered at 1745 on March 24, 1989. At that time the Unit was at 0% power in MODE 4 (Hot Shutdown) with reactor pressure at 280 PSIA and temperature at 265°F. The Unit had been shutdown to start a scheduled refueling outage. At the time the notification was made, the Unit was being cooled down to Cold Shutdown (MODE 5) conditions after having completed a set of post shutdown hot functional tests.

Immediate action was initiated to return all MODE 5 and 6 snubbers to operable status so that systems required for these modes would not be impacted by the inoperability of any safety-related snubbers. This action was completed by 1800 on March 26, 1989.

II. CAUSE OF EVENT

The root cause of the event has been determined to be a lack of adequate control for completed original STPs prior to approval of results, to prevent loss. The procedure that controls the Surveillance Test Program requires several individuals from several different Calvert Cliffs Departments to share in the functional responsibility for writing, scheduling, and reviewing certain STPs. This dissemination of responsibility leads to a higher potential for STP scheduling errors, reviewing errors, and data loss. A minimum of four individuals are responsible for different phases of ensuring a surveillance requirement is satisfied. A communication deficiency between any two of these individuals can easily impact satisfactory completion of STPs.

Contributing to the event was a personnel error by the Surveillance Test Coordinator for STP-M-11-2 in 1987. The STC failed to pay proper attention to detail when reviewing the reconstruction of the lost STP. The STC failed to positively identify and attach the source of the reproduced data so that the reproduced data could be verified at a future date.

III. ANALYSIS OF EVENT

This event is considered reportable per 10 CFR 50.73 (a)(2)(i)(B), "Any operation prohibited by the plants Technical Specifications." This condition was discovered during a review of snubber functional testing on March 23, 1989. However, it is now known that the condition has existed at least since September 29, 1987.

Safety-related snubbers are required to ensure that structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other event initiating dynamic loads. All 227 safety-related snubbers at Unit 2 were administratively inoperable due to the inability to verify the results of the 1987 Snubber Functional Test.

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APPROVED OMB NO. 3150-0104  
EXPIRES: 8/31/88

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Although the snubbers were administratively inoperable per the Unit 2 Technical Specifications, there was no other reason to doubt the ability of the safety-related snubbers to perform their intended design function. Assurance of this may be drawn from the other portions of the augmented inservice inspection program required by T.S. 4.7.8.1. A valid visual inspection was in effect for Unit 2 and there was no snubber installed in the Unit which had a service life of greater than 75% of the maximum allowable service life. Thus, it is concluded that a constant level of adequate snubber protection was maintained throughout this event and that no safety consequences resulted from this event and that there was no impact on the public health and safety.

The total duration of this event was from May 25, 1987, until March 23, 1989, a total of 668 days.

IV. CORRECTIVE ACTION

Upon notification that safety-related snubbers were considered inoperable, the Control Room entered the appropriate 72 hour ACTION statement. Within the next 72 hours MODE 5 and 6 snubbers were returned to operability by functionally testing greater than 10% of that group of snubbers. This allowed the Unit to return to normal refueling activities which required MODE 5 and 6 systems to be operable.

STP-M-11-2 is currently being performed for Unit 2. This test shall be completed prior to the initial restart following the current refueling outage. Completion of this test shall satisfy the functional testing requirements for all safety-related snubbers including those required to be operable in MODES 5 and 6.

A review of other completed snubber surveillance procedures has been performed to assure that no similar deficiencies exist in past test results. One minor deficiency was noted in a visual inspection surveillance procedure. This deficiency did not impact compliance with the Units Technical Specification.

Quality Assurance Procedure QAP-7, "Records Management" Section 9.0 Lost or Damaged Records shall be revised to specify the requirements of individuals who are regenerating test records from alternative data sources.

This issue shall be brought to the attention of all STCs, System Engineers, and appropriate Maintenance personnel.

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A revision has been proposed to Calvert Cliffs Instruction, CCI-104 "Surveillance Test Program." An individual site surveillance test coordinator shall have overall responsibility for implementation of the surveillance test program. Ownership for administrating the surveillance test program shall reside with several functional surveillance test coordinators (FSTC). Each FSTC will have responsibility for a specific STP area, such as Mechanical, Electrical, or Fire Protection. Each FSTC shall be responsible for preparing and revising, scheduling, and trending results, as well as reviewing and handling completed STPs in his area. This proposed revision shall reduce the potential for loss of STPs after they are complete. Previously, a minimum of four individuals interfaced to ensure that the tasks which the FSTC shall be responsible for were done appropriately.

V. ADDITIONAL INFORMATION

There have been no previous similar events that involved exceeding a surveillance interval due to inability to positively verify the data in a surveillance test procedure.

Identification of Components Referred to in this LER.

Component	IEEE 803 EIIIS Funct.	IEEE 805 System ID
Snubber	SNB	Various



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CALVERT CLIFFS NUCLEAR POWER PLANT DEPARTMENT  
CALVERT CLIFFS NUCLEAR POWER PLANT  
LUBBY, MARYLAND 20667

April 24, 1989

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

Docket No. 50-318  
License No. DPR 69

Dear Sirs:

The attached LER 89-005 is being sent to you as required by 10 CFR 50.73.

Should you have any questions regarding this report, we would be pleased to discuss them with you.

Very truly yours,

L. B. Russell  
Manager-Calvert Cliffs Nuclear Power Plant Department

LBR:CDS:llw

cc: William T. Russell  
Director, Office of Management Information  
and Program Control  
Messrs: G. C. Creel  
C. H. Cruse

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