NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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.

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Sequoyah Nuclear Plant (SQN), Unit 1	05000327	1 of 5

TITLE (4) Surveillance requiremebnts associated with the analog channel inputs to the solid state protection system may not have been performed as required by technical specifications because of inadequate performance guidance.

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 SQN Unit 2	DOCKET NUMBER 05000328
09	23	95	95	012	00	10	23	95	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)	0		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)
			20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)
			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER
			20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A		(Specify in Abstract below and in Text, NRC Form 366A)
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B		
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
J. W. Proffitt, Compliance Licensing Engineer	(423)843-6651

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)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

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

On September 23, 1995, it was discovered that surveillance requirements associated with the calibration of analog channels which input to the solid state protection system (SSPS) may not have been performed as required by technical specifications. The technical specifications require that a functional test be performed as part of the channel calibration; this includes testing of the alarms and/or trip functions. During analog channel calibration, other activities may have required taking a train of SSPS out of service. With a train of SSPS out of service, the operation of that train's circuitry cannot be completely tested. The testing methodology did not provide adequate overlapping to ensure that both trains alarm and that trip functions are tested. The cause of this condition was determined to be inadequate guidance with regard to procedure performance. A procedure has been established to ensure that the analog channel alarms and/or trip functions are tested as required by technical specifications.

I. PLANT CONDITIONS

Unit 1 was in a refueling outage with the core off loaded, and Unit 2 was operating in Mode 1 at 100 percent reactor power.

II. DESCRIPTION OF EVENT

A. Event

On September 23, 1995, it was discovered that surveillance requirements associated with the calibration of analog channels which input to the solid state protection system (SSPS) (EIIS Code JG) may not have been performed as required by technical specifications. Technical specifications require that functional testing of the alarms and/or trip functions be performed as part of the calibration. During analog channel calibration, other activities may have required taking a train of SSPS out of service. There is no objective evidence to indicate that a train of SSPS was out of service when the calibrations were being performed. With a train of SSPS out of service, the operation of that train's input relay and the universal board multiplex circuitry cannot be completely tested. By not testing the input relay and the universal board multiplex circuitry, the associated alarm and/or trip functions for the train that is out of service is not verified. The testing methodology did not provide adequate overlapping to ensure that both trains' alarm and trip functions are tested. Therefore, a complete functional test was not performed on some channels as required by technical specifications. An operability evaluation was performed on Unit 2. It was determined that a functional test of both trains of SSPS alarm and trip functions had been performed subsequent to the last outage. Therefore, both trains of SSPS were operable.

B. Inoperable Structures, Components, or Systems that Contributed to the Event

None.

C. Dates and Approximate Times of Major Occurrences

September 23, 1995 — It was discovered that surveillance requirements associated with the SSPS calibrations may not have been performed as required by technical specifications. It was determined that the condition did not affect the operability of Unit 2.

October 23, 1995 — A new procedure to ensure that both trains of SSPS alarm and trip functions are operable was established.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

During analog channel calibration activities, a senior reactor operator observing the activities identified the potential deficiency.

F. Operator Actions

Upon the discovery of the condition, the appropriate Operations personnel were notified of the condition. An operability review of the Unit 2 analog channel functional test and channel calibrations was performed, and it was determined that the Unit 2 channels were operable.

G. Safety System Responses

Not applicable- no safety system responses were required.

III. CAUSE OF EVENT

A. Immediate Cause

The immediate cause of this condition was the failure to properly implement the surveillance requirement as required by technical specifications.

B. Root Cause

The cause of this condition was determined to be inadequate guidance with regard to procedure performance. The procedure was established with the intent of being performed with both trains of equipment in service. However, the procedure did not include this as a prerequisite. During an outage, response time testing is also required. The structure of the response time testing program requires a train of SSPS to be out of service when testing is being performed. Therefore, if a channel was out of service for response time testing, one train's alarm and/or trip functions would not have been tested.

IV. ANALYSIS OF EVENT

Technical specifications require analog channel calibrations to be performed every 18 months. These calibrations are performed during refueling outages. Also, functional testing of the identified circuitry is performed every 92 days as required by technical specifications. Subsequent to the identification of the condition, a review of the reliability of the input relay and the universal multiplex circuitry from 1990 to present was performed. It was determined that there have been no failures of the input relay and the universal multiplex circuitry in the functional tests that were performed following a refueling outage. Therefore, it is concluded that the analog channels and SSPS would have performed their function as required, and there was no danger to the health and safety of plant personnel or the public.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Action

Upon discovery of the condition, an operability evaluation was performed on Unit 2. It was determined that the functional test had been performed subsequent to the last outage and that both trains of SSPS were operable.

B. Corrective Action to Prevent Recurrence

The appropriate Unit 1 functional tests to verify that the alarm and/or trip functions for the analog channels will be performed as required before restart. A procedure has been established to ensure that the functional tests to verify that the alarm and/or trip functions of the analog channels are performed as required by technical specifications.

VI. ADDITIONAL INFORMATION

A. Failed Components

None.

B. Previous Similar Events

A review of previous reported occurrences was conducted to identify similar events. Although other LERs were identified associated with missed surveillances, there were no previously reported events associated with this type of condition.

VII. COMMITMENTS

None.