



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

J. L. Wilson
Vice President, Sequoyah Nuclear Plant

September 21, 1992


U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT UNIT 2 - DOCKET
NO. 50-328 - FACILITY OPERATING LICENSE DPR-79 - LICENSEE EVENT REPORT
(LER) 50-328/92011

The enclosed LER provides details concerning a reactor trip and a safety-injection actuation as a result of an inadvertent radio transmission in the incore instrument room. This event is being reported in accordance with 10 CFR 50.73(a)(2)(iv) as an automatic actuation of engineered safety features, including the reactor protection system.

Sincerely,


J. L. Wilson

Enclosure
cc: See page 2

280017

9209290320 920921
PDR ADDCK 05000328
S PDR

Test 1

U.S. Nuclear Regulatory Commission
Page 2
September 21, 1992

cc (Enclosure):

INFO Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

Mr. D. E. LaBarge, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

NRC Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy-Daisy, Tennessee 37379

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Sequoyah Nuclear Plant, Unit 2										DOCKET NUMBER (2) PAGE (3) 050003 12 8 110F 0 5									
TITLE (4) Reactor Trip and Safety-Injection Actuation as a Result of an Inadvertent Radio Transmission in the Incore Instrument Room																			
EVENT DAY (5)					LER NUMBER (6)					REPORT DATE (7)					OTHER FACILITIES INVOLVED (8)				
					SEQUENTIAL REVISION					FACILITY NAMES					DOCKET NUMBER(S)				
MONTH DAY YEAR YEAR					NUMBER NUMBER MONTH DAY YEAR										050003				
0 8 2 1 9 2 9 2					0 1 1 0 0 0 9 2 1 9 2										050003				
OPERATING THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5:																			
MODE (Check one or more of the following)(11)																			
(9) 1 20.402(b) 20.405(c) XX 50.73(a)(2)(iv) 73.71(b)																			
POWER 20.405(a)(1)(i) 50.36(c)(1) 50.73(a)(2)(v) 73.71(c)																			
LEVEL 20.405(a)(1)(ii) 50.36(c)(2) 50.73(a)(2)(vii) OTHER (Specify in																			
(10) 1 0 0 20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(viii)(A) Abstract below and in																			
20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(viii)(B) Text, NRC Form 366A																			
20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(x)																			
LICENSEE CONTACT FOR THIS LER (12)																			
NAME										TELEPHONE NUMBER									
C. D. McDuffy, Compliance Licensing										AREA CODE 6 1 5 8 4 3 - 7 7 6 6									
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																			
CAUSE SYSTEM COMPONENT MANUFACTURER					REPORTABLE					CAUSE SYSTEM COMPONENT MANUFACTURER					REPORTABLE				
					TO NPRDS										TO NPRDS				
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED MONTH DAY YEAR									
										SUBMISSION									
YES (If yes, complete EXPECTED SUBMISSION DATE) X NO										DATE (15)									

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

At approximately 1322 Eastern daylight time, on August 21, 1992, with Unit 2 at 100 percent power, a reactor trip and a safety injection occurred from a low-pressurizer pressure signal. After plant conditions were stabilized, the safety injection was terminated, and the emergency core cooling-system pumps were returned to standby alignment. The apparent cause of the trip was determined to be from an inadvertent radio transmission in the incore instrument room seal table area near the pressurizer pressure transmitters. The procedure governing the use of radio equipment will be revised to better preclude radio transmissions inside containment during unit operation. In addition, alternate means of communications inside containment will be evaluated.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)										PAGE (3)									
Sequoyah Nuclear Plant, Unit 2				SEQUENTIAL				REVISION													
		YEAR		NUMBER				NUMBER													
		0	5	0	0	0	3	2	8	9	2	--	0	1	1	--	0	0	0	2	OF

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

I. PLANT CONDITIONS

Unit 2 was operating at 100 percent power.

II. DESCRIPTION OF EVENT

A. Event

On August 21, 1992, at approximately 1322 Eastern daylight time (EDT), the unit experienced a reactor trip (EIIIS Code JC) and safety-injection actuation (EIIIS Code JE). The reactor trip and safety injection were initiated by a low-pressurizer pressure signal that resulted from an inadvertent radio transmission.

B. Inoperable Structures, Components, or Systems

None.

C. Dates and Approximate Times of Major Occurrences

August 21, 1992 at 1215 EDT	An Operations briefing was held in support of a planned valve-test activity. A radio was to be carried into the incore instrument room to receive communication only (not to transmit).
at approximately 1307-1322 EDT	Personnel entered containment with a radio and proceeded to the seal-table area. The specific valve to be tested was located, and preparations for testing were initiated.
at 1322-1333 EDT	A reactor trip and safety injection occurred. Operations immediately entered Emergency Procedure E-0, "Reactor Trip or Safety Injection." All reactor coolant system (RCS) pressure indicators were indicating normal. Operations completed the immediate actions of the emergency procedure and transitioned to a safety-injection termination to recover from the safety-injection actuation.
at 1335-1351 EDT	Operations declared a notification of unusual event (NOUE). The emergency core cooling system pumps were returned to standby alignment with one centrifugal charging pump left in service.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
Sequoyah Nuclear Plant, Unit 2			SEQUENTIAL	REVISION			
		YEAR	NUMBER	NUMBER			
	05000328	92	011	000	30	05	

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

at 1411 EDT NRC was notified of the reactor trip, the safety-injection actuation, and the declaration of the NOUE.

at 1722 EDT Operations exited the safety-injection termination procedure and the NOUE.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

The radio transmission near the pressure transmitters caused the safety-injection actuation and the reactor trip, which caused an annunciation in the control room.

F. Operator Actions

As a result of the event, Operations performed Emergency Procedure E-0 and verified that the critical safety systems and components were performing their intended functions. Operations declared an NOUE and stabilized the unit.

G. Safety System Responses

Safety systems performed their intended functions.

III. CAUSE OF EVENT

A. Immediate Cause

The safety injection and the reactor trip were generated from a low-pressurizer pressure signal. It has been concluded that the low-pressurizer pressure signal resulted from an inadvertent radio transmission in the incore instrument room near the pressurizer pressure transmitters.

B. Root Cause

The cause of this event is attributed to allowing a radio in containment on an operating unit, which was an assumed risk.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)			
			SEQUENTIAL	REVISION					
Sequoyah Nuclear Plant, Unit 2		YEAR	NUMBER	NUMBER					
	050003 28	9 2	-- 0 1 1	-- 0 0	0 4	OF	0 5		

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

IV. ANALYSIS OF EVENT

Plant responses during and after the safety-injection actuation were consistent with the responses described in the Final Safety Analysis Report. As a result of the reactor trip and safety injection, the reactor coolant system (RCS) temperatures decreased below the shutdown margin analysis limit. However, borated water was added to the RCS in accordance with plant procedures. Hence, shutdown margin was maintained; the event was terminated and did not pose a nuclear safety threat to plant personnel or the public.

V. CORRECTIVE ACTIONS

Immediate Corrective Action

As an interim action, radios in containment are not allowed unless approved by the Duty Plant Manager or for a medical emergency.

Corrective Actions to Prevent Recurrence

1. Meetings were held with Operations personnel to discuss the importance of risk reduction.
2. The procedure governing the use of radio equipment will be revised to ensure that only radios that are not capable of transmitting will be allowed in containment in modes 1 through 4, except in the case of an emergency.
3. An evaluation will be conducted to determine alternate means of communications when inside containment.

VI. PREVIOUS SIMILAR EVENTS

A review of the LER database identified three LERs involving reactor trip signals induced by radio interference. Only one event, LER Special Report 81-04, involved a safety injection and reactor trip on low-pressurizer pressure signals. In this case, the actuation occurred when personnel used a radio near the pressurizer-pressure transmitters in the incore instrument room. The corrective action involved the placement of signs in the incore instrument room warning against the use of two-way radios. In the current event, personnel were aware of the potential and did not intend to "use" the radio (transmit), i.e., receive only. This transmission was inadvertent.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)			
		YEAR	NUMBER	REVISION					
Sequoyah Nuclear Plant, Unit 2									
050032892--011--0005OF05									

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

VII. COMMITMENTS

1. TVA will revise by November 22, 1992, the procedure governing the use of radio equipment to ensure that only radios that are not capable of transmitting will be allowed in containment in modes 1 through 4, except in the case of an emergency.
2. TVA will evaluate by October 2, 1992, alternate means of communications when inside containment.