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Masoud Bajestani
Site Vice President
Sequoyah Nuclear Plant

April 10, 2000

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

10 CFR 50.73

Gentlemen:

TENNESSEE VALLEY AUTHORITY - SEQUOYAH NUCLEAR PLANT (SQN) UNIT 1 - DOCKET NO. 50-327 - FACILITY OPERATING LICENSES DPR-77 - LICENSEE EVENT REPORT (LER) 50-327/2000002

The enclosed report provides details concerning a manual initiation of a Phase A and containment ventilation isolation signal. This event is being reported, in accordance with 10 CFR 50.73(a)(2)(iv), as an event that resulted in a manual actuation of engineered safety features.

Sincerely,

J. Valente

for Masoud Bajestani

Enclosure
cc: See page 2

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IE22

Enclosure
cc (Enclosure):

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NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Sequoyah Nuclear Plant (SQN) UNIT 1	05000327	1 OF 5

TITLE (4)
Loss of Pressurizer Level as a Result of a Relief Valve Failing toReseat

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	DOCKET NUMBER
03	14	2000	2000	-- 002 --	00	04	10	2000	NA	05000
									FACILITY NAME: NA	DOCKET NUMBER: 05000

OPERATING MODE (9)	5
POWER LEVEL (10)	000

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

	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(I)		50.73(a)(2)(ii)		50.73(a)(2)(x)
	20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
	20.2203(a)(2)(ii)		20.2203(a)(4)	X	50.73(a)(2)(iv)		OTHER
	20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
	20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
J. W. Proffitt, Industry Affairs Specialist	(423) 843-6651

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
X	BP	RV	C710	Y					

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

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

On March 13, 2000, at approximately 2350 Eastern standard time (EST), Operations personnel began venting the residual heat removal (RHR) discharge hot leg injection piping with one RHR pump in service. Operations personnel observed a decreasing pressurizer level and realigned the RHR pump to the normal cold leg injection flow path. As the pressurizer level continued to decrease, Operations personnel initiated additional actions based on applicable abnormal operating procedures. At approximately 0035 EST, Operations personnel initiated a manual Phase A and containment ventilation isolation. A relief valve on the RHR pump discharge piping had opened to relieve pressure in the system and did not reseat. Operations personnel reduced the reactor coolant system (RCS) pressure and stabilized the pressurizer level. The RHR relief valve relieves to the pressurizer relief tank. The root cause of the event was an inadequate procedure revision. The procedure is being revised to provide an appropriate method of venting the RHR discharge piping. Also, the relief valve was replaced.

I. PLANT CONDITION(S)

Unit 1 was in Mode 5 shutdown for a refueling outage.

II. DESCRIPTION OF EVENT

A. Event:

On March 13, 2000, at approximately 2350 Eastern standard time (EST), Operations personnel began venting the residual heat removal (RHR) [EIIS Code BP] discharge hot leg injection piping with one RHR pump in service. Operations personnel observed a decreasing pressurizer [EIIS Code AB] level and realigned the RHR pump to the normal cold leg injection flow path. As the pressurizer level continued to decrease, Operations personnel initiated additional actions based on applicable abnormal operating procedures. At approximately 0035 EST, Operations personnel initiated a manual Phase A and containment ventilation isolation (CVI). A relief valve on the RHR pump discharge piping had opened to relieve pressure in the system and did not reseat. Operations personnel reduced the reactor coolant system (RCS) pressure and stabilized pressurizer level.

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

None.

C. Dates and Approximate Times of Major Occurrences:

March 13, 2000, at 2350 EST	Operations personnel began venting the RHR hot leg injection piping.
March 14, 2000, at ~0010 EST	Operations personnel observed a decreasing pressurizer level and realigned the RHR pump to the normal cold leg injection flow path.

at 0017 EST	Operations personnel entered the abnormal operating procedures as the pressurizer level continued to decrease. Also, a containment evacuation was initiated.
at 0018 EST	Notification was made to close the containment airlock doors and close the equipment hatch.
at 0035 EST	Operations personnel initiated a manual Phase A and CVI signals.
at 0042 EST	Operations personnel reduced the reactor coolant pressure and restored reactor coolant inventory by initiating the pressurizer auxiliary spray and increasing charging flow.
at 0047 EST	Operations stabilized pressurizer pressure and level and reset the Phase A and CVI signals.
at 0125 EST	Operations exited the abnormal operating procedure.

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

Operations personnel observed a decreasing pressurizer level on the main control room panels.

F. Operator Actions:

Control room operators responded to the loss of RCS inventory as prescribed by the abnormal operating procedures. They promptly diagnosed the condition and took appropriate actions to manually initiate a Phase A and CVI signals. Operations personnel reduced RCS pressure and stabilized the pressurizer level.

G. **Safety System Responses:**

The equipment that was required to start as a result of the manual Phase A and CVI signals started as designed.

III. CAUSE OF THE EVENT

A. **Immediate Cause:**

The immediate cause of the event was that a pressure surge occurred in the RHR discharge piping. This pressure surge caused a relief valve to lift.

B. **Root Cause:**

The root cause of the condition was an inadequate procedure revision. The surveillance instruction for venting of the RHR system did not include proper controls for flow rates while filling voids. This resulted in a pressure surge while using the procedure to fill the system voids.

IV. ANALYSIS OF THE EVENT

Although this event resulted in a decrease in pressurizer level, pressurizer inventory was maintained with the charging pump that was inservice and decay heat removal capabilities were maintained. Additional injection capabilities were also available to provide borated water to the RCS. Based on this information, this condition is not considered safety significant and did not adversely affect the health or safety of plant personnel or the general public.

V. CORRECTIVE ACTIONS

A. **Immediate Corrective Actions:**

Upon identification of the condition, Operations personnel responded to the loss of RCS inventory as prescribed by the abnormal operating procedures. They promptly diagnosed the condition, took appropriate actions to reduced RCS pressure, and stabilized the pressurizer level.

B. Corrective Actions to Prevent Recurrence:

The venting procedures are being changed to ensure that the venting process does not result in a pressure surge and lifting the relief valve.

The relief valve was replaced. Also, an evaluation is being performed on the failed relief valve to determine why the relief valve did not reseat.

VI. ADDITIONAL INFORMATION

A. Failed Components:

The relief valve (Crosby Valve & Gage Company) Type No. 2 J 3 JB-25-3 (TD) Specification B on the RHR discharge piping failed to reseat, resulting in the loss of pressurizer level.

B. Previous LERs on Similar Events:

There were no previous similar events identified.

C. Additional Information:

None.

D. Safety System Functional Failure:

This event did not result in a safety system functional failure in accordance with NEI 99-02.

VII. COMMITMENTS

None.