

Description of Event

On May 23, 1983, between 2019 and 2021 Unit 2 pressurizer power operated relief valve PCV-2455C lifted three times to mitigate a Reactor Coolant System pressure transient caused by an inadvertent safety injection actuation. Immediately prior to the event Unit 2 conditions were as follows:

- a) Pressurizer level 19 percent
- b) RCS temperature 115 degrees Fahrenheit
- c) RCS pressure 350 psig
- d) "B" RHR pump operating
- e) "1A" Reactor Coolant Pump operating

Instrument technicians were preparing to replace the RCS narrow range temperature RTD's. The instrument calibration procedures, which were being used to remove affected channels from service, required the pressurizer pressure channels to be placed in trip. Placing the pressurizer pressure channels in trip resets the SI low pressure block (P-11). At 2018 the Solid State Protection System (SSPS) initiated safety injection in response to pressurizer low low pressure.

Only one high head safety injection (HHSI) pump was operable as required by T.S. 3.5.3. Both low head safety injection pump were in the pull-to-lock position. The one operable HHSI pump supplied approximately 528 gpm injection flow. Injection lasted approximately 3 minutes before being terminated.

Only one pressurizer PORV was required to control the RCS pressure transient. Pressurizer PORV PCV-1455C opened three times at its specified setpoint of 385 psig. The openings occurred 1 minute 34 seconds, 2 minutes 11 seconds, and 2 minutes 45 seconds after SI actuation. Reactor Coolant System pressure did not exceed 387 psig. Pressurizer PORV PCV-1456 with a setpoint of 400 psig was available to control the event if PCV-1455C had not operated.

Immediately after securing safety injection flow Unit 2 conditions were as follows:

- a) Pressurizer level 52 percent
- b) RCS temperature 115 degrees Fahrenheit
- c) RCS pressure 372 psig
- d) "B" RHR pump operating
- e) "1A" Reactor Coolant Pump operating

The SI actuated the Control Room Bottled Air System as designed. The inservice Unit 2 side A and E bottled air banks dropped below the minimum 2300 psig pressure specified by T.S. 4.7.7.2.b. Control Room Bottled Air System operability is required by T.S. 3.7.7.1 for Mode 1, 2, 3 and 4 operation. Unit 1 was operating in Mode 1 at 100 percent of Rated Thermal Power when the Unit 2 event occurred.

The events described above are reportable pursuant to Unit 1 T.S. 6.9.1.9.b and Unit 2 T.S. 6.9.2.

Probable Consequences of Occurrence

The overpressurization protection system operated as designed and prevented low temperature overpressurization of the Reactor Coolant System. The event did not affect the integrity of Reactor Coolant System. The standby Unit 1 side A and B bottled air banks were aligned for service within 20 minutes. The Action statement of the applicable LCO (T.S. 3.7.7.1) was met. The public health and safety were not affected.

Cause of Event

Instrument calibration procedures being used to change the Reactor Coolant System narrow range RTD's required placing the pressurizer channels in trip. Placing the pressurizer pressure channels in trip resets the Solid State Protection System (SSPS) low pressure SI block. Because all three pressurizer pressure channel low low pressure bistables were tripped, the SSPS coincidence requirements for low pressure safety injection (2 out of 3 low low pressurizer pressure with no low pressure SI block) were met. The SSPS responded by initiating safety injection and phase A containment isolation.

The instrument calibration procedures stated that there were no coincidence requirements. The instrument calibration procedures used were inadequate. The safety injection event challenged the Reactor Coolant Overpressurization Protection System and discharged the Control Room Bottled Air System.

Immediate Corrective Action

After confirming the safety injection event was inadvertent, operators secured safety injection flow pursuant to the applicable emergency procedure. Approximately 3 minutes after the SSPS initiated safety injection, safety injection flow to Reactor Coolant System was secured. The standby Unit 1 side A and B bottled air banks were aligned for service within 20 minutes and the Unit 2 side air banks repressurized.

Scheduled Corrective Action

Instrument calibration procedures ICP-P-2-T-412, ICP-P-2-T-422, and ICP-P-2-T-432 will be revised to include appropriate coincidence requirements and precautions. Unit 1 and 2 protection channel instrument calibration procedures will be reviewed for a similar problems. Procedures having similar problems will be revised.

Action Taken To Prevent Recurrence

The scheduled corrective actions should prevent recurrence.

Generic Implications

This event has no generic implications.

Vepco

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USNRC REGION 3
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June 15, 1983

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

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NO/RCS: nih
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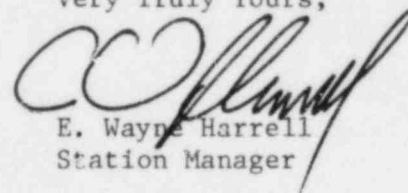
Dear Mr. O'Reilly:

Pursuant to North Anna Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following License Event Report applicable to North Anna Units No. 1 and 2.

Report No.	Applicable Technical Specifications
LER 83-033/03L-0	T.S. 6.9.2 and T.S. 6.9.1.9.b

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be forwarded to Safety Evaluation and Control for their review.

Very Truly Yours,


E. Wayne Harrell
Station Manager

Enclosures (3 copies)

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