

LICENSEE EVENT REPORT

CONTROL BLOCK / / / / / / (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

/0/1/ /V/A/N/A/S/1/ (2) /0/0/-/0/0/0/0/0/-/0/0/ (3) /4/1/1/1/1/ (4) / / / (5)
LICENSEE CODE LICENSE NUMBER LICENSE TYPE CAT
/0/1/ REPORT /L/ (6) /0/5/0/0/0/3/3/8/ (7) /0/2/0/2/8/3/ (8) /0/3/0/4/8/3/ (9)
SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

/0/2/ / On February 2, 1983, with Unit 1 in Mode 5, a High Head Safety Injection (HHSI) /
/0/3/ / throttle valve was found to be out-of-alignment by 7/8 of turn. This event is /
/0/4/ / reportable pursuant to T.S. 6.9.1.9.d. The flow in one of the SI branch lines /
/0/5/ / might have been reduced if full HHSI flow had been required. The public health /
/0/6/ / and safety were not affected. /
/0/7/ / /
/0/8/ / /

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
/0/9/ /S/F/ (11)	/A/ (12)	/B/ (13)	/V/A/L/V/E/X/ (14)	/F/ (15)	/G/ (16)
LER/RO REPORT NUMBER	EVENT YEAR	SEQUENTIAL REPORT NO.	OCCURRENCE CODE	REPORT TYPE	REVISION NO.
(17)	/8/3/	/-/ /0/0/7/ /	/0/3/	/L/	/-/ /0/

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
/H/ (18)	/G/ (19)	/Z/ (20)	/Z/ (21)	/0/0/0/0/ (22)	/Y/ (23)	/N/ (24)	/N/ (25)	/R/3/4/0/ (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

/1/0/ / It appears that a miscount of valve handle turns during either a type C test on /
/1/1/ / November 9, 1982 or valve verification procedure on November 8, 1982 caused the /
/1/2/ / misalignment. The importance of careful alignment of throttle valves has been /
/1/3/ / restressed to operators. Procedures are being changed to more clearly state /
/1/4/ / valve alignment requirements. /

FACILITY STATUS	%POWER	OTHER STATUS	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
/1/5/ /G/ (28)	/0/0/0/ (29)	/ NA / (30)	/A/ (31)	/ Operator Observation /

ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
/1/6/ /Z/ (33)	/Z/ (34)	/ NA /	/ NA /

PERSONNEL EXPOSURES NUMBER	TYPE	DESCRIPTION (39)
/1/7/ /0/0/0/ (37)	/Z/ (38)	/ NA /

PERSONNEL INJURIES NUMBER	DESCRIPTION (41)
/1/8/ /0/0/0/ (40)	/ NA /

LOSS OF OR DAMAGE TO FACILITY TYPE	DESCRIPTION (43)
/1/9/ /Z/ (42)	/ NA /

PUBLICITY ISSUED	DESCRIPTION (45)
/2/0/ /N/ (44)	/ NA /

NRC USE ONLY

/ / / / / / / / / / / / / / / /

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Virginia Electric and Power Company
North Anna Power Station, Unit No. 1
Docket No. 50-338
Report No. LER 83-007/03L-0

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Description of Event

On February 2, 1983, with Unit 1 in Mode 5, several High Head Safety Injection (HHSI) system branch line throttle valves were tagged out to replace their packing. The as found position of one of the valves 1-SI-188 was found to be significantly misaligned. This event is reportable pursuant to T.S. 6.9.1.9.d.

Probable Consequences of Occurrence

Computer models of the HHSI system and tests of the HHSI system have not been developed to the extent required to predict the effects of the throttle valve misalignments accurately. Based on HHSI testing experience, it is expected that the cold leg total flow would not have been substantially affected. Branch line flow to A cold leg might have been significantly affected. If a break in the RCS near the B or C cold leg branch line had occurred, the "cut in" pressure would not have been significantly affected but the flow after "cut in" in the unaffected loops may have been significantly lower. Westinghouse Technical Bulletin NSD-TB-80-11 discusses these affects.

Other than the particular accident case given above, no adverse safety consequences would be expected. In the particular accident case discussed above, flow might be less than analyzed in the FSAR with single train HHSI. With dual train HHSI no adverse safety consequence would be expected.

During the period when the valves were misaligned, November 9, 1982 to February 2, 1983, Unit 1 was above Mode 5 (Cold Shutdown) a total of 541 hours (22 1/2 days) hours and in Mode 1 (Power Operation) a total of 20 hours.

The public health and safety were not affected.

Cause of Event

It appears that the valves were positioned last in accordance with a type C testing procedure, 1-PT-61.3, which requires the operator performing the test to close the valves and then return them to their as found position. Valves other than 1-SI-188 were properly positioned.

It appears the significant misalignment of 1-SI-188 occurred due to a counting error. It has not been determined whether or not the counting error occurred during type C testing pursuant to 1-PT-61.3 on November 9, 1982 or the day before during alignment verification pursuant to 1-OP-7.2A.

Immediate Corrective Action

Valves which were not being tagged out for maintenance, were carefully placed in the position required by 1-OP-7.2A. Positions specified in 1-OP-7.2A were verified as correct by comparing them to positions determined by the most recent SI flow balance test. When maintenance was complete on the remaining HHSI throttle valves, they were carefully aligned in accordance with 1-OP-7.2A.

A discussion of the event was placed in level 1 required reading. This discussion stresses the importance of setting the throttle valves as exactly as possible. It also describes a method of using valve stem lift measuring spacers to double check proper valve position after alignment.

Scheduled Corrective Action

Both the Unit 1 and Unit 2 type C tests will be changed to require that the HHSI throttle valves be set in accordance with the system operating procedure which specifies the valve position rather than requiring that the valve be returned to its "as found" position.

Actions Taken to Prevent Recurrence

Other than the actions already described above, no further corrective actions are required.

Generic Implications

This event has no generic implications.