U.S. NUCLEAR REGULATORY COMMISSION

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 SOURCE /L/ (6) /0/5/0/0/0/3/3/8/ (7) /0/9/1/7/8/2/ (8) /1/0/1/2/8/2/ (9)
DOCKET NUMBER — EVENT DATE — REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

/0/2/ / On September 17, 1982, with Unit 1 in Mode 6, a Cold Leg Injection Line Check /
/0/3/ / Valve was found to have one badly corroded bolt. A total of 5 bolts appeared to /
/0/4/ / be corroded. This 6 inch Velan Check Valve has 12 carbon steel closure studs. /
/0/5/ / Many studs would have to be totally failed to jeopardize the integrity of the Re-/
/0/6/ / actor Coolant System. Only one stud was badly corroded; therefore, the health and/
/0/7/ / safety of the general public were not affected. This is reportable pursuant to /
/0/8/ / T.S. 6.9.1.9.d. /

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
/0/9/	/S/F/ (11)	/X/ (12)	/X/ (13)	/V/A/L/V/E/X (14)	/C/ (15)	/A/ (16)

	LER/RO REPORT NUMBER	EVENT YEAR	SEQUENTIAL REPORT NO.	OCCURRENCE CODE	REPORT TYPE	REVISION NO.
(17)		/8/2/	/-/ /0/6/2/	/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
/A/ (18)	/Z/ (19)	/Z/ (20)	/Z/ (21)	/0/0/0/0/ (22)	/Y/ (23)	/N/ (24)	/N/ (25)	/V/0/8/5/ (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

/1/0/ / The Check Valve (1-SI-83) had a small leak at the body to bonnet gasket. The /
/1/1/ / boric acid from the primary coolant corroded the carbon steel studs. All of the /
/1/2/ / studs were replaced when the valve was disassembled to replace the bonnet gasket./
/1/3/ /
/1/4/ /

FACILITY STATUS /H/ (28) %POWER /0/0/0/ (29) OTHER STATUS / NA / (30) METHOD OF DISCOVERY /A/ (31) DISCOVERY DESCRIPTION (32) / Mechanic Observation /

/1/5/

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

/1/6/

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

/1/7/

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

/1/8/

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

/1/9/

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

/2/0/

NRC USE ONLY / / / / / / / / / / / / /

NAME OF PREPARER W. R. CARTWRIGHT PHONE (703) 894-5151

Virginia Electric and Power Company
North Anna Power Station, Unit No. 1 Attachment: Page 1 of 1
Docket No. 50-338
Attachment to LER 82-062/03L-0

Description of Event

On September 17, 1982, with Unit 1 in Mode 6, a Cold Leg Injection Line Check Valve was found to have one badly corroded and four slightly corroded closure studs. The corrosion was discovered during maintenance to repair a leak at the body to bonnet gasket on this valve.

Probable Consequences of Occurrence

The valve is a 6 inch Velan Swing Check with 12-1.25 inch carbon steel closure studs. The total force on the bonnet at the maximum system pressure is less than the yield strength of one closure stud. Five partially corroded studs could not jeopardize the integrity of the Reactor Coolant System; therefore, the health and safety of the general public were not affected.

Cause of Event

The check valve had a small leak at the body to bonnet gasket. The borated reactor coolant water corroded the carbon steel studs.

Immediate Corrective Action

All of the closure studs were replaced. The check valves at the Reactor Coolant Loops in the other 6 inch injection lines were inspected for possible stud damage.

Scheduled Corrective Action

The 6 inch check valves in the injection lines near the Reactor Coolant Loops will be inspected every refueling outage until the maintenance history indicates the inspection at this frequency is no longer necessary.

Action Taken To Prevent Recurrence

No further action is required.

Generic Implications

Corrosion of carbon steel studs and bolts on reactor coolant components is a generic problem. Any time carbon steel is used on a system containing boric acid and leakage occurs, degradation will ensue.