

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

/0/1/ CONTROL BLOCK / / / / / / / (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)
/V/A/N/A/S/1/ (2) /0/0/-/0/0/0/0/0/-/0/0/ (3) /4/1/1/1/1/ (4) / / / (5)
/0/1/ LICENSEE CODE LICENSE NUMBER LICENSE TYPE CAT
REPORT
SOURCE /L/ (6) /0/5/0/0/0/3/3/8/ (7) /0/8/0/7/8/3/ (8) /0/8/3/1/8/3/ (9)
DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

/0/2/ / On August 7, 1983, with Unit 1 in Mode 1, Outside Containment Recirculation Spray/
/0/3/ / valve MOV-RS-155B failed to reopen during surveillance testing. This event is /
/0/4/ / reportable pursuant to T.S. 6.9.1.9.b. Two redundant 50 percent Inside Recircu- /
/0/5/ / lation Spray Subsystems and one redundant Outside Recirculation Spray Subsystem /
/0/6/ / remained operable throughout the event. MOV-RS-155B was satisfactorily tested /
/0/7/ / and returned to service within 24 hours. The Action Statement of the applicable /
/0/8/ / LCO, T.S. 3.6.2.2 was met. The public health and safety were not affected. /

SYSTEM CAUSE CAUSE COMP. VALVE
CODE CODE SUBCODE COMPONENT CODE SUBCODE SUBCODE

/0/9/ /S/B/ (11) /E/ (12) /B/ (13) /V/A/L/V/O/P/ (14) /A/ (15) /Z/ (16)
LER/RO EVENT YEAR SEQUENTIAL OCCURRENCE REPORT REVISION
REPORT NO. NO.
(17) NUMBER /8/3/ /-/ /0/5/6/ /-/ /0/3/ /L/ /-/ /0/

ACTION FUTURE EFFECT SHUTDOWN ATTACHMENT NPRD-4 PRIME COMP. COMPONENT
TAKEN ACTION ON PLANT METHOD HOURS SUBMITTED FORM SUB. SUPPLIER MANUFACTURER

/A/ (18) /Z/ (19) /Z/ (20) /Z/ (21) /0/0/0/0/ (22) /Y/ (23) /Y/ (24) /A/ (25) /L/2/0/0/ (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

/1/0/ / The housing gaskets on the valve operator were not thick enough to provide proper/
/1/1/ / bevel gear and roller bearing play. After replacing the motor, a torque switch, /
/1/2/ / and installing new housing gaskets, the Limitorque Operator operated smoothly. /
/1/3/ / The valve was cycled and returned to service. /
/1/4/ /

FACILITY METHOD OF
STATUS %POWER OTHER STATUS (30) DISCOVERY DISCOVERY DESCRIPTION (32)
/1/5/ /E/ (28) /1/0/0/ (29) / NA / /B/ (31) / Surveillance Test /

ACTIVITY CONTENT
RELEASED 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 (43)
TYPE DESCRIPTION
/1/9/ /Z/ (42) / NA /

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

NRC USE ONLY

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

NAME OF PREPARER E. Wayne Harrell

PHONE (703) 894-5151

8309120454 830831
PDR ADOCK 05000338
S PDR

Virginia Electric and Power Company
North Anna Power Station, Unit No. 1
Docket No. 50-338
Attachment to LER 83-056/03L-0

Attachment: Page 1 of 2

Description of Event

On August 7, 1983, with Unit 1 at 100 percent of Rated Thermal Power, Outside Containment Recirculation Spray valve MOV-RS-155B failed to reopen during surveillance testing. This event is reportable pursuant to T.S. 6.9.1.9.b.

Probable Consequences of Occurrence

Two redundant 50 percent Inside Containment Recirculation Spray Subsystems and one 50 percent Outside Containment Recirculation Spray Subsystem remained operable throughout the event. MOV-RS-155B was repaired, satisfactorily tested and returned to service within 24 hours after being declared inoperable. The Action Statement of the applicable LCO, T.S. 3.6.2.2, was met. The public health and safety were not affected.

Cause of Event

The housing gaskets on the valve operator were not thick enough to provide proper bevel gear and roller bearing play. An excessive compressive load on the roller bearings and bevel gear significantly increased operating resistance. The maintenance history of the valve was examined to determine whether or not undersized gaskets were installed on the main housing and bevel gear housing. The housing cover and hand wheel assembly were replaced in January 1980. The main housing cover gasket and bevel gear housing gasket installed at that time may have provided only marginal bevel gear and roller bearing play. Additional gasket compression or creep occurring between January 1980 and August 1983 may have reduced the bevel gear and roller bearing play to an unacceptable value.

Immediate Corrective Action

The operator of MOV-RS-155B is connected to its valve by a 50 foot shaft. The valve stem to shaft coupling was lubricated. Manual valve operation continued to be difficult and motor operation repeatedly failed in the closed position.

The hand wheel assembly and housing cover were removed from the Limitorque operator. The required housing cover and bevel gear housing clearance were checked as described in the Limitorque Type SMB Instruction and Maintenance Manual. The existing gaskets were too thin to provide the required clearances. New gaskets were installed to obtain the required clearances. After the Limitorque operator was reassembled, manual operation of the valve took a minimal effort.

The motor operator had overloaded during initial troubleshooting and was replaced. A new motor was installed and the valve cycled electrically. The closed torque switch failed, the valve jammed in the closed position, the insulation of the motor was damaged, and the motor shaft key sheared.

Examination of the torque switch revealed that the cam striker had failed. A new torque switch and motor were installed. The valve was cycled without any further problems and declared operable.

Scheduled Corrective Action

Additional corrective actions are not required.

Action Taken To Prevent Recurrence

The valve maintenance procedure was reviewed and determined to be adequate.

Generic Implications

This event does not have generic implications.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

P. O. BOX 402

MINERAL, VIRGINIA 23117

August 31, 1983

USNRC REGION II
ATLANTA, GEORGIA
83 SEP 7 49:03

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

Serial No. N-83-127
NO/RCS: 11
Docket No. 50-338
License No. NPF-4

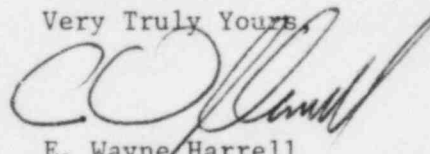
Dear Mr. O'Reilly:

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 Unit No. 1.

| Report No. | Applicable Technical Specifications |
|------------------|-------------------------------------|
| LER 83-056/03L-0 | 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)

cc: Document Control Desk (1 copy)
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Washington, D. C. 20555

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