

## 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) /0/3/1/8/8/3/ (8) /0/4/1/4/8/3/ (9)  
SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

/0/2/ / On March 18, 1983, with Unit 1 at 96% power, the Axial Flux Difference (AFD) went /  
/0/3/ / less than -5% from target for less than one minute. Since the AFD was restored /  
/0/4/ / to within the +/-5% target band in accordance with the requirements of T.S. /  
/0/5/ / 3.2.1. the public health and safety were not affected. This event is reportable /  
/0/6/ / pursuant to T.S. 6.9.1.9.b. /  
/0/7/ / /  
/0/8/ / /

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

/0/9/ /R/C/ (11) /X/ (12) /Z/ (13) /Z/Z/Z/Z/Z/Z/Z/ /Z/ /Z/  
LER/RO EVENT YEAR SEQUENTIAL OCCURRENCE REPORT REVISION  
REPORT REPORT NO. CODE TYPE NO.  
(17) NUMBER /8/3/ /-/ /0/1/4/ / / /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

/X/ (18) /Z/ (19) /Z/ (20) /Z/ (21) /0/0/0/0/ (22) /N/ (23) /N/ (24) /N/ (25) /W/1/2/0/  
(26)

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

/1/0/ / This event occurred because of the difficulty establishing a stable AFD target /  
/1/1/ / in a new core during the initial ramp to 100% power, and because current values /  
/1/2/ / for channel N-44 were incorrect. The AFD was brought within target by lowering /  
/1/3/ / RCS temperatures and terminating the ramp. New current values for all four chan-/  
/1/4/ / nels and a lower AFD target were obtained from a 95% power full core flux map. /

FACILITY METHOD OF  
STATUS %POWER OTHER STATUS DISCOVERY DISCOVERY DESCRIPTION (32)  
/1/5/ /E/ (28) /0/9/6/ (29) / NA / (30) /A/ (31) / Operator Observation /

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 /

NAME OF PREPARER E. W. HARRELL PHONE (703) 894-5151

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NRC USE ONLY

Virginia Electric and Power Company  
North Anna Power Station, Unit No. 1  
Docket No. 50-338  
Report No. LER 83-014/03L-0

Attachment: Page 1 of 2

#### Description of Event

On March 18, 1983, with Unit 1 at 96% power, the Axial Flux Difference (AFD) went less than -5% from target and accumulated one penalty minute. This event is reportable pursuant to T.S. 6.9.1.9.b.

#### Probable Consequences of Occurrence

Since the AFD target was restored to within 5% of the target band in accordance with the requirements of T.S. 3.2.1 the public health and safety were not affected.

#### Cause of Event

This event was caused by the difficulty in establishing a stable AFD target in a new core during the initial ramp to 100% power. Initial flux mapping resulted in setting the target flux at a high value which resulted in subsequent operation in the lower part of the band. Flux maps taken afterwards as the core reached equilibrium resulted in the AFD target being set at a lower value.

Several contributing causes to this event include the following: incorrect current values had been calculated and utilized to calibrate Excore Channel N-44 after the 50% full core flux map had been completed (these incorrect current values caused N-44 to read lower than the other three excore channels and out of the target band a substantial portion of the time); operation personnel were maintaining the AFD somewhat lower than target in preparation for the upcoming 100% power full core flux map and control of AFD was limited because of ramp rate rod withdrawal limitations (3 steps per hour). Excore Channel N-43 indicated out of the target band and penalty minutes began to accumulate (two excore channels out of the +/-5% target band are required for penalty minutes to accumulate).

#### Immediate Corrective Action

The AFD was brought within the target band within one minute by lowering RCS average temperature. Subsequently, a full core flux map was taken at 95% power and new current values for all four nuclear power range detectors obtained. The power range detectors were recalibrated and a lower AFD target calculated from the 95% power flux map was obtained.

#### Scheduled Corrective Action

None required

Actions Taken to Prevent Recurrence

None required

Generic Implications

There are no generic implications to this event.