

## LICENSEE EVENT REPORT

CONTROL BLOCK: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

CON'T

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 Veeco was notified by the fuel vendor that a potential nonconservative feature of

0 3 its large break LOCA-ECCS Evaluation Model exists. This problem could affect the peak

0 4 clad temperature calculated for the large break LOCA-ECCS transient. The health and

0 5 safety of the general public were not affected. Reportable pursuant to T.S. 6.9.1.8.h

0 6

0 7

0 8

0 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

SYSTEM CODE: R C (11) CAUSE CODE: B (12) CAUSE SUBCODE: A (13) COMPONENT CODE: X X X X X X X (14) COMP. SUBCODE: Z (15) VALVE SUBCODE: Z (16)

LER/RO REPORT NUMBER: 17 EVENT YEAR: 79 (21) SEQUENTIAL REPORT NO.: 143 (24) OCCURRENCE CODE: 01 (28) REPORT TYPE: T (30) REVISION NO.: 0 (32)

ACTION TAKEN: X (33) FUTURE ACTION: X (34) EFFECT ON PLANT: Z (35) SHUTDOWN METHOD: Z (36) HOURS: 0000 (40) ATTACHMENT SUBMITTED: Y (41) NRPD-4 FORM SUB.: N (42) PRIME COMP. SUPPLIER: N (43) COMPONENT MANUFACTURER: W120 (46)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The problem is related to fuel burst calculations and the use of potentially nonconser-

1 1 vative clad heatup rates. Reanalysis for the LOCA-ECCS peak clad temperature using

1 2 a more recent evaluation model is in progress.

1 3

1 4

1 5 FACILITY STATUS: H (28) % POWER: 000 (29) OTHER STATUS: NA (30) METHOD OF DISCOVERY: D (31) DISCOVERY DESCRIPTION: Notification from Vendor (32)

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

1 7 PERSONNEL EXPOSURES: 000 (37) TYPE: Z (38) DESCRIPTION: NA (39)

1 8 PERSONNEL INJURIES: 000 (40) DESCRIPTION: NA (41)

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

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

NAME OF PREPARER: W. R. Cartwright

7911270 451  
PHONE: 703-894-5151

NRC USE ONLY

Virginia Electric and Power Company  
North Anna Power Station, Unit 1  
Docket No. 50-338  
Report No. LER/RO 79-143/01T-0

Attachment: Page 1 of 1

#### Description of the Event

The fuel vendor notified Vepco on November 9, 1979 that a potential nonconservative feature of its large break LOCA-ECCS evaluation model existed. This event is reportable pursuant to T.S. 6.9.1.8.h.

#### Probable Consequences of the Event

This problem could affect the peak clad temperature calculated for the large break LOCA transient. The F(Q) limit may be affected. The health and safety of the general public were not affected by this event.

#### Cause

This new discovery resulted from work performed subsequent to meetings held with the NRC on November 1 and 2, 1979 concerning studies made by Oak Ridge National Laboratory. The fuel vendor determined that a nonconservative feature could exist in the large break LOCA-ECCS analysis with respect to the portion of the calculation related to fuel rod burst. The existing fuel rod burst model used clad heatup rates of 25 F per second or greater. Actually, clad heatup rates could be less than the existing model. A shift in clad burst time can affect the peak clad temperature calculated for the LOCA transient.

#### Immediate Corrective Action

Discussions were held with the fuel vendor with respect to reanalysis of the LOCA transient to formulate scheduled corrective actions.

#### Scheduled Corrective Action

It is anticipated that the required analysis will be completed in December 1979 and the F (Q) limit modified, if required.

#### Actions Taken to Prevent Recurrence

Not applicable to this event.

1398 086