

## LICENSEE EVENT REPORT

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

/0/1/ /V/A/N/A/S/I/ (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) /0/7/2/3/8/3/ (8) /0/8/1/7/8/3/ (9)  
SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

/0/2/ / On July 23, 1983, the post reactor shutdown specific activity samples of the /  
/0/3/ / Reactor Coolant System indicated a Dose Equivalent I-131 level greater than the /  
/0/4/ / limit specified by T.S. 3.4.8. Since the high iodine level existed for only a /  
/0/5/ / short time and the specific activity returned to within the T.S. 3.4.8 limit, the /  
/0/6/ / health and safety of the public were not affected. This event is reportable pur- /  
/0/7/ / suant to T.S. 6.9.1.9.d and the special reporting requirements of T.S. 6.9.2. /  
/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/ (14) /Z/ (15) /Z/ (16)  
LER/RO EVENT YEAR SEQUENTIAL OCCURRENCE REPORT REVISION  
REPORT NO. NO.

(17) NUMBER /8/3/ /-/ /0/5/1/ / / /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) /Y/ (23) /N/ (24) /N/ (25) /W/1/2/0/ (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

/1/0/ / This event was caused by a known fuel element defect in the reactor core. Post /  
/1/1/ / trip conditions in the core enhanced the release of fission fragments to the /  
/1/2/ / Reactor Coolant System which caused the iodine spike. The accelerated sampling /  
/1/3/ / frequency of T.S. 3.4.8 was implemented until the RCS specific activity returned /  
/1/4/ / to less than the T.S. limit. /

FACILITY METHOD OF  
STATUS %POWER OTHER STATUS DISCOVERY DISCOVERY DESCRIPTION (32)  
/1/5/ /G/ (28) /0/0/0/ (29) / NA / (30) /C/ (31) /Post Trip Chemistry Sample/

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

Virginia Electric and Power Company  
North Anna Power Station, Unit No. 1  
Docket No. 50-338  
Attachment to LER 83-051/03L-0

Attachment: Page 1 of 3

#### Description of Event

On July 23, 1983, following a reactor shutdown from 100% power, the specific activity sample of the reactor coolant showed a Dose Equivalent I-131 level of greater than the T.S. 3.4.8 limit of 1.0 microcuries/gm. This limit was exceeded for 34.6 hours and reached a peak of 2.62 microcuries/gm. Samples were taken in accordance with items 4a and 4b of T.S. Table 4.4-4.

#### Probable Consequences of Occurrence

The I-131 Dose Equivalent specific activity exceeded the 1.0 microcurie/gram T.S. limit for less than the 48 hours allowed by the Action Statement of T.S. 3.4.8; therefore, the health and safety of the general public were not affected.

#### Cause of Event

The iodine spike was caused by known, yet not specifically located, fuel element defects in the reactor core. Post shutdown conditions enhanced the release of fission fragments, specifically I-131, to the Reactor Coolant System which caused an increase in the coolant specific activity level.

#### Immediate Corrective Action

The primary coolant was sampled and analyzed at the frequency required by items 4a and 4b of Technical Specifications Table 4.4-4. The specific activity was verified to be less than 1.0 microcurie/gram within 48 hours.

#### Scheduled Corrective Action

No scheduled corrective action is required.

#### Action Taken To Prevent Recurrence

No further action is required to prevent recurrence.

#### Generic Implications

There are no generic actions associated with this event.

Supplemental Information

This event is reportable as a "Thirty-Day Written Report" pursuant to T.S. 6.9.1.9.d. In addition the supplemental information required by T.S. 6.9.2 "Special Report" and by T.S. 3.4.8 is included as follows:

## 1. Reactor Power History 48 hours prior to these events:

<u>DATE</u>	<u>TIME</u>	<u>POWER</u>	<u>MWe</u>	<u>COMMENTS</u>
07-21-83	0000-2400	100%	918	A
07-22-83	0000-2400	100%	916	A
07-23-83	0000	97%	893	B
07-23-83	0100	94%	866	B
07-23-83	0200	95%	874	B
07-23-83	0300	97%	893	B
07-23-83	0400-1200	100%	916	A
07-23-83	1300	78%	707	C
07-23-83	1400	17%	142	C

- A) Steady state power operation
- B) Decreased power for turbine valve freedom test. Began ramp down just prior to 0000. Completed test at 0146 and began to increase power. Unit at 100% power at 0400.
- C) Began ramp down at 1232 due to gland steam condenser tube leak. Decreased power at 2% per minute until 1242. Held power at 90% until 1247 and then ramped down at 1% per minute until generator was taken off line.

Supplemental Information

2. Fuel Burnup by Core Region - As of July 23, 1983:

<u>FUEL BATCH</u>	<u>BURNUP (MWD/MTU)</u>
42Z	28,897
5A	19,639
6A	5,042

3. One mixed bed demineralizer was in service 48 hours prior to and after the event. Average flowrate was 125 gpm.
4. No de-gassing operations were performed.
5. The maximum possible duration of activity exceeding 1.0 microcuries/gram Dose Equivalent of I-131 was approximately 34.6 hours.

July 23, 1983	0042	0.0603 mCi/gm	pre shutdown sample
July 23, 1983	1655	1.99 mCi/gm	
July 23, 1983	2045	2.62 mCi/gm	
July 24, 1983	0100	2.06 mCi/gm	
July 24, 1983	0305	1.73 mCi/gm	
July 24, 1983	0630	1.20 mCi/gm	
July 24, 1983	1120	0.728 mCi/gm	

**Vepco**

USNRC REGION II  
ATLANTA, GEORGIA

83 AUG 23 4:35  
VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION  
P. O. BOX 402  
MINERAL, VIRGINIA 23117

August 17, 1983

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-83-119  
NO/RST: 11  
Docket No. 50-338  
License No. NPF-4

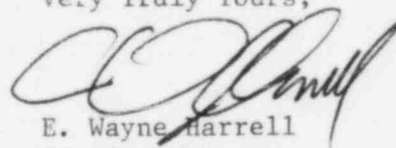
Dear Mr. O'Reilly:

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 83-051/03L-0	T.S. 6.9.1.9.d

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)  
016 Phillips Bldg.  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

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