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VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION

P. O. BOX 402

MINERAL, VIRGINIA 23111

June 7, 1984

U. S. Nuclear Regulatory Commission
Document Control Desk
016 Phillips Building
Washington, D.C. 20555

Serial No. N-84-011
NO/RST: 11
Docket No. 50-338

License No. NPF-4

Dear Sirs:

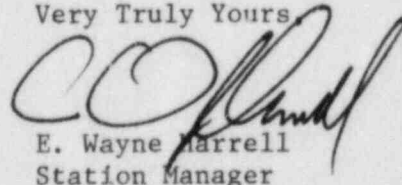
Pursuant to North Anna Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following Special Report applicable to North Anna Unit No. 1.

Report No.
Special Report SP-N1-84-02

Applicable Technical Specifications
T.S. 6.9.2.f

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 Marrell
Station Manager

Enclosures (3 copies)

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

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Description of Event

On May 12, 1984, following a Unit 1 shutdown from 100 percent power, the specific activity of the Reactor Coolant System exceeded the Technical Specification Dose Equivalent I-131 limit of 1.0 microcuries per gram. The limit was exceeded for less than 29 hours and reached a peak of 1.94 microcuries per gram. This event is contrary to T.S. 3.4.8 and is reportable pursuant to T.S. 6.9.2.f.

Probable Consequences of Occurrence

The Dose Equivalent I-131 specific activity exceeded the 1.0 microcuries per 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

On May 11, 1984, at 2113 a unit rampdown was initiated to begin a refueling outage. The turbine was taken off line nine hours later. The resulting iodine spike is an expected phenomenon caused by minor fuel element defects present in the reactor core. The diffusion of iodine into the reactor coolant was enhanced by the change in reactor power.

Immediate Corrective Action

The primary coolant was sampled and analyzed at the accelerated frequency required by item 4a of T.S. 3.4.8 table 4.4-4.

Scheduled Corrective Action

None required.

Action Taken To Prevent Recurrence

No further action required.

Generic Implications

Iodine spiking as a recurring phenomenon in Unit 1 and has been previously reported.

Supplemental Information

This event is reportable as a "Special Report" pursuant to T.S. 6.9.2. In addition the supplemental information required by T.S. 3.4.8 is included as follows:

1. Reactor Power History 48 hours prior to the event:

<u>DATE</u>	<u>TIME</u>	<u>POWER</u>	<u>MWe</u>	<u>COMMENTS</u>
05-10-84	0000-2400	100%	945	A
05-11-84	0000-2113	100%	945	B
05-11-84	2200	90%	855	
05-11-84	2300	75%	728	
05-11-84	2400	68%	663	
05-12-84	0100	53%	513	
05-12-84	0200	50%	470	
05-12-84	0300	41%	365	
05-12-84	0400	29%	244	
05-12-84	0500	28%	240	
05-12-84	0600	11%	74	C
05-12-84	0700	0%	0	D

- A) Steady state power operation.
- B) Began rampdown at 2113 to begin refueling outage.
- C) Turbine taken off line at 0611.
- D) Reactor taken subcritical at 0644.

2. Fuel Burnup by Core Region - As of May 12, 1984:

<u>FUEL BATCH</u>	<u>BURNUP (MWD/MTU)</u>
4A2	34,268
5A	28,750
6A	14,987

3. Clean up flow history (one mixed bed demineralizer in service):

<u>DATE</u>	<u>TIME</u>	<u>AVERAGE FLOWRATE (GALLONS PER MINUTE)</u>
05-10-84	0000-2400	125
05-11-84	0000-0327	126
05-11-84	0327-2400	78
05-12-84	0000-0133	78
05-12-84	0133-0930	125

4. History of degassing operations 48 hours prior to the first sample exceeding the T.S. limit:

De-gassing operations were performed intermittently between 0320 and 1520 on 05-11-84.

5. Duration of Dose Equivalent I-131 above 1.0 microcurie/gram:

<u>DATE</u>	<u>TIME</u>	<u>DOSE EQUIVALENT I-131 (MICROCURIES/GRAM)</u>
05-11-84	0120	0.116
05-12-84	0316	0.251
05-12-84	0930	1.94
05-12-84	1230	1.92
05-12-84	1630	1.44

<u>DATE</u>	<u>TIME</u>	<u>DOSE EQUIVALENT</u> <u>I-131 (MICROCURIES/GRAM)</u>
05-12-84	1830	1.38
05-12-84	2030	1.43
05-13-84	0108	1.42
05-13-84	0408	1.07
05-13-84	0808	0.95
05-13-84	1205	0.621
05-13-84	1625	0.459
05-13-84	0231	0.278