

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

February 28, 1992

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No. 92-132
NAPS/JHL
Docket Nos. 50-338
50-339
License Nos. NPF-4
NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNIT NOS. 1 AND 2
ANNUAL SPECIFIC ACTIVITY REPORT

Results of specific activity analysis in which the primary coolant exceeded the limits of Technical Specification 3.4.8 are to be submitted on an annual basis pursuant to Technical Specification 6.9.1.5.c. There was one instance where the Dose Equivalent Iodine-131 in the primary coolant exceeded the 1.0 $\mu\text{Ci/gm}$ limit. The limits of Technical Specification 3.4.8 were exceeded for 11.9 hours. This occurred on North Anna Unit 2 on September 20, 1991 following an automatic reactor trip. Approximately four failed fuel rods are estimated to be in the Unit 2 core. With this number of defects, the increase in primary coolant specific activity following a reactor trip is expected.

Fuel examinations will be performed during the next Unit 2 refueling outage to identify the leaking fuel rods. The data required to be submitted as a result of exceeding the primary coolant limits of Technical Specification 3.4.8 is provided in the attachment.

If you have any questions or require additional information, please contact us.

Very truly yours,



W. L. Stewart
Senior Vice President - Nuclear

Attachment

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PDR ADOCK 05000338
R PDR

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cc: U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Suite 2900
Atlanta, Georgia 30323

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station

Unit 2 Power History

<u>Date</u>	<u>Time</u>	<u>Power Level (%)</u>	<u>Date</u>	<u>Time</u>	<u>Power Level (%)</u>
18-Sep-91	00:00	100.0	20-Sep-91	00:00	100.0
	01:00	100.0		01:00	100.0
	02:00	100.0		02:00	100.0
	03:00	100.0		03:00	100.0
	04:00	100.0		04:00	100.0
	05:00	100.0		05:00	100.0
	06:00	100.0		05:13	100.0
	07:00	100.0		05:14	0.0
	08:00	100.0		06:00	0.0
	09:00	100.0		07:00	0.0
	10:00	100.0		08:00	0.0
	11:00	100.0		09:00	0.0
	12:00	100.0		10:00	0.0
	13:00	100.0		11:00	0.0
	14:00	100.1		12:00	0.0
	15:00	100.1		13:00	0.0
	16:00	100.1		14:00	0.0
	17:00	100.1		15:00	0.0
	18:00	100.1		16:00	0.0
	19:00	100.1		17:00	0.0
	20:00	100.1		18:00	0.0
	21:00	100.1		19:00	0.0
	22:00	100.1		20:00	0.0
	23:00	100.1		21:00	0.0
19-Sep-91	00:00	100.1	21-Sep-91	22:00	0.0
	01:00	100.1		23:00	0.0
	02:00	100.1		00:00	0.0
	03:00	100.1		01:00	0.0
	04:00	100.1		02:00	0.0
	05:00	100.1		03:00	0.0
	06:00	100.0		04:00	0.0
	07:00	100.1		05:00	0.0
	08:00	100.0		06:00	0.0
	09:00	100.1		07:00	0.0
	10:00	100.1		08:00	0.0
	11:00	100.0		09:00	0.0
	12:00	100.0		10:00	0.0
	13:00	100.1		10:20	1.5
	14:00	100.1		11:00	1.5
	15:00	100.0		11:15	3.5
	16:00	100.1		12:00	3.5
	17:00	100.1		13:00	3.5
	18:00	100.0		14:00	3.5
	19:00	100.0		15:00	3.5
	20:00	100.0		16:00	3.5
	21:00	100.0		17:00	3.5
	22:00	100.0		18:00	3.5
	23:00	100.0		19:00	3.5

Unit 2 Power History



Unit tripped from 100% power on 9/20/91 at 05:13 and achieved criticality on 9/21/91 at 10:20

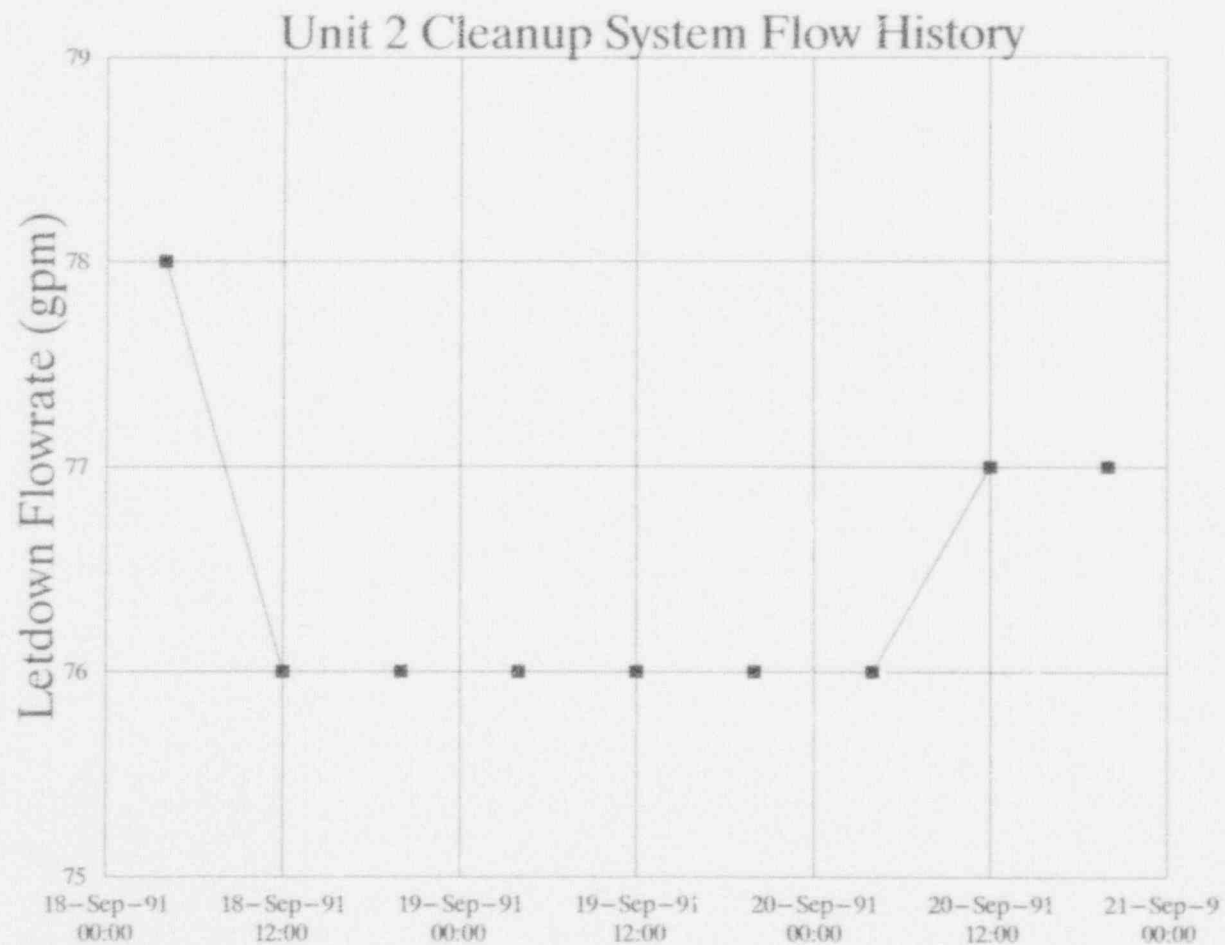
Primary Coolant Radioiodine

<u>Date</u>	<u>Time</u>	<u>Power Level</u>	<u>I¹³¹</u>	<u>I¹³²</u>	<u>I¹³³</u>	<u>I¹³⁴</u>	<u>I¹³⁵</u>	Dose Equivalent <u>I¹³¹</u>
			Activity (μ Ci/gm)	Activity (μ Ci/gm)	Activity (μ Ci/gm)	Activity (μ Ci/gm)	Activity (μ Ci/gm)	Activity (μ Ci/gm)
9/18/91	0015	100	7.77E-3	3.36E-2	2.33E-2	5.26E-2	3.38E-2	1.90E-2
9/19/91	0010	100	7.21E-3	3.44E-2	2.33E-2	5.37E-2	3.68E-2	1.87E-2
9/20/91	0012	100	7.49E-3	3.39E-2	2.28E-2	5.36E-2	3.52E-2	1.87E-2
	0855	0	9.46E-1	2.96E-1	7.41E-1	2.73E-2	3.65E-1	1.19E+0
	1100	0	9.44E-1	1.63E-1	6.89E-1	5.28E-3	2.95E-1	1.16E+0
	1245	0	8.52E-1	1.88E-1	6.08E-1	8.29E-3	2.25E-1	1.04E+0
	1645	0	9.31E-1	5.19E-2	5.84E-1	3.39E-3	1.68E-1	1.10E+0
	2047	0	5.91E-1	1.48E-1	3.32E-1	3.42E-3	7.35E-2	6.94E-1
9/21/91	0020	0	4.56E-1	1.36E-1	2.36E-1	2.57E-3	3.83E-2	5.28E-1
9/22/91	0027	0	1.19E-1	7.38E-2	3.75E-2	4.83E-3	4.14E-3	1.32E-1

Clean-up System Flow History

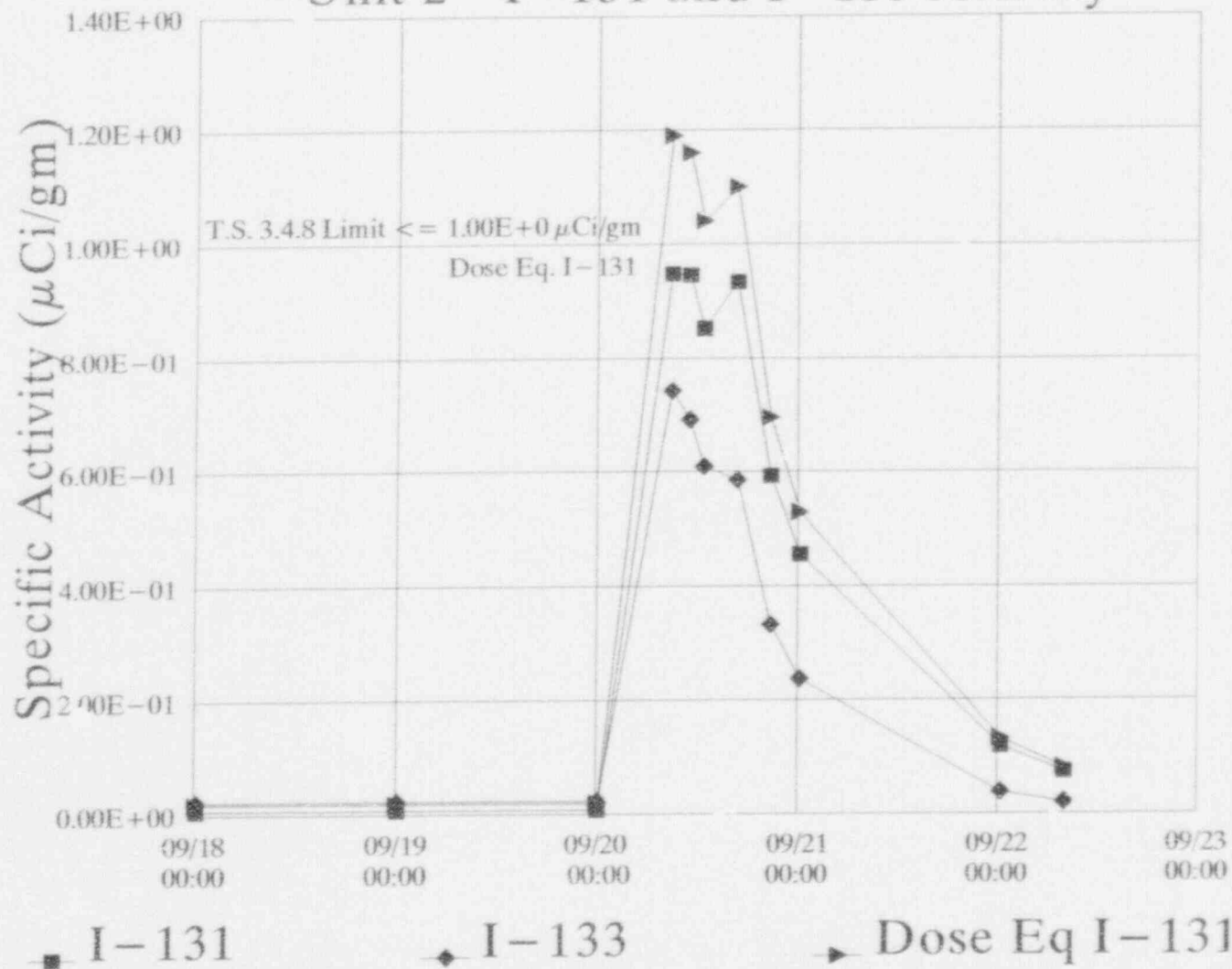
<u>Date</u>	<u>Time</u>	<u>Letdown Flow (gpm)</u>
9/18/91	0400	78
	1200	76
	2000	76
9/19/91	0400	76
	1200	76
	2000	76
9/20/91	0400	76
	1200	77
	2000	77
9/21/91	0400	77
	1200	77
	2000	77

Date	Time	Letdown Flow (gpm)
18-Sep-91	04:00	78
18-Sep-91	12:00	76
18-Sep-91	20:00	76
19-Sep-91	04:00	76
19-Sep-91	12:00	76
19-Sep-91	20:00	76
20-Sep-91	04:00	76
20-Sep-91	12:00	77
20-Sep-91	20:00	77
21-Sep-91	04:00	77
21-Sep-91	12:00	77
21-Sep-91	20:00	77



Date	Time	I-131 $\mu\text{Ci/gm}$	I-133 $\mu\text{Ci/gm}$	Dose Eq I-131 $\mu\text{Ci/gm}$
18-Sep-91	00:15	7.77E-03	2.33E-02	1.90E-02
19-Sep-91	00:10	7.21E-03	2.33E-02	1.87E-02
20-Sep-91	00:12	7.48E-03	2.28E-02	1.87E-02
20-Sep-91	08:55	9.48E-01	7.41E-01	1.19E+00
20-Sep-91	11:00	9.44E-01	6.89E-01	1.18E+00
20-Sep-91	12:45	8.52E-01	6.09E-01	1.04E+00
20-Sep-91	16:45	9.31E-01	5.84E-01	1.10E+00
20-Sep-91	20:47	5.91E-01	3.32E-01	6.94E-01
21-Sep-91	00:20	4.56E-01	2.36E-01	5.28E-01
22-Sep-91	00:17	1.19E-01	3.75E-02	1.32E-01
22-Sep-91	08:03	7.34E-02	1.96E-02	8.03E-02

Unit 2 I-131 and I-133 Activity



Unit tripped from 100% power on 9/20/91 at 05:13