

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

February 25, 2002

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

Serial No. 02-127  
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 WHOLE BODY EXPOSURE REPORT**

Pursuant to Technical Specifications 6.9.1.5.a, enclosed is the Annual Whole Body Exposure Report for North Anna Power Station Unit Nos. 1 and 2 for the reporting period of January 1, 2001 to December 31, 2001. The activities considered Special Maintenance in the enclosure consisted of:

1. Service Water Piping Replacement
2. Unit 1 Cut-Out/Replacement of Safety Injection Accumulator Nozzles
3. Unit 2 Cut-Out/Replacement of Safety Injection Accumulator Nozzles
4. Unit 1 Reactor Head Inspection
5. Unit 2 Reactor Head Inspection and Repair

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

Very truly yours,



D. A. Heacock  
Site Vice President

Enclosure

Commitments made in this letter: None

JE56

cc: U. S. Nuclear Regulatory Commission  
Region II  
Atlanta Federal Center  
61 Forsyth St., SW, Suite 23T85  
Atlanta, Georgia 30303

REIRS, Project Manager  
Office of Nuclear Regulatory Research  
United States Nuclear Regulatory Commission  
Washington, D. C. 20555

Mr. M. J. Morgan  
NRC Senior Resident Inspector  
North Anna Power Station

North Anna Power Station  
Post Office Box 402  
Mineral, VA 23117

VIRGINIA POWER

# ANNUAL EXPOSURE REPORT

January 1, 2001 - December 31, 2001

**RECORDED ANNUAL WHOLE BODY EXPOSURE REPORT**

**NORTH ANNA POWER STATION**

**JANUARY 1, 2001 - DECEMBER 31, 2001**

**PREPARED BY:** Teresa G. Johnson  
Teresa G. Johnson  
Supervisor  
Exposure Control & Instrumentation

**REVIEWED BY:** E. Dreyer  
Erich W. Dreyer  
Supervisor Health Physics  
(Technical Services)

**REVIEWED BY:** A.H. Stafford  
A.H. Stafford  
Manager  
Radiological Protection

**APPROVED BY:** D.A. Heacock  
D.A. Heacock  
Site Vice President  
North Anna Power Station

# **F O R W A R D**

**This report is submitted as required by Technical Specifications 6.9.1.5.a for North Anna Power Station Units 1 and 2.**

**PERSONNEL RADIATION EXPOSURE MANAGEMENT SYSTEM**  
**Man-rem Exposure - Work/Job Function Report**  
**(Based on Self-reading Dosimetry)**  
**NORTH ANNA POWER STATION**  
**License Numbers NPF-4, NPF-7**  
**Calendar Year 2001**

Work Function	Number of Workers			Total Man-rem			Totals
	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>REACTOR OPERATIONS&amp;S</b>							
Total	252	24	11	4.274	.073	.031	4.378
MAINTENANCE PERSONNEL	56	2	2	1.302	.000	.004	1.306
OPERATING PERSONNEL	122	5	1	2.383	.015	.000	2.398
HEALTH PHYSICS PERSONNEL	38	2	8	.406	.000	.027	.433
SUPERVISORY PERSONNEL	25	14	0	.050	.056	.000	.106
ENGINEERING PERSONNEL	11	1	0	.133	.002	.000	.135
OTHERS	0	0	0	.000	.000	.000	.000

Work Function	Number of Workers			Total Man-rem			Totals
	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>INSERVICE INSPECTION</b>							
Total	80	8	93	3.021	.029	4.008	7.058
MAINTENANCE PERSONNEL	17	1	52	.245	.002	1.280	1.527
OPERATING PERSONNEL	29	4	0	1.706	.016	.001	1.723
HEALTH PHYSICS PERSONNEL	13	1	10	.098	.002	.113	.213
SUPERVISORY PERSONNEL	3	1	0	.042	.001	.000	.043
ENGINEERING PERSONNEL	18	1	31	.930	.008	2.614	3.552
OTHERS	0	0	0	.000	.000	.000	.000

Work Function	Number of Workers			Total Man-rem			Totals
	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>ROUTINE MAINTENANCE</b>							
Total	661	268	949	71.359	2.637	68.103	142.099
MAINTENANCE PERSONNEL	260	25	680	41.530	.443	57.632	99.605
OPERATING PERSONNEL	210	124	62	10.186	.629	.771	11.586
HEALTH PHYSICS PERSONNEL	85	18	155	15.855	.457	9.412	25.724
SUPERVISORY PERSONNEL	40	50	11	2.254	.623	.038	2.915
ENGINEERING PERSONNEL	66	51	41	1.534	.485	.250	2.269
OTHERS	0	0	0	.000	.000	.000	.000

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Work Function	Number of Workers			Total Man-rem			Totals
	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>WASTE DISPOSAL</b>							
Total	141	6	3	1.067	.023	.007	1.097
MAINTENANCE PERSONNEL	51	0	0	.220	.000	.000	.220
OPERATING PERSONNEL	42	3	0	.289	.002	.000	.291
HEALTH PHYSICS PERSONNEL	38	1	3	.555	.000	.007	.562
SUPERVISORY PERSONNEL	10	2	0	.003	.021	.000	.024
ENGINEERING PERSONNEL	0	0	0	.000	.000	.000	.000
OTHERS	0	0	0	.000	.000	.000	.000

Work Function	Number of Workers			Total Man-rem			Totals
	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>REFUELING</b>							
Total	229	34	158	19.326	.399	7.316	27.041
MAINTENANCE PERSONNEL	107	2	114	14.408	.053	5.969	20.430
OPERATING PERSONNEL	70	25	12	2.540	.279	.186	3.005
HEALTH PHYSICS PERSONNEL	34	2	23	1.354	.026	.881	2.261
SUPERVISORY PERSONNEL	12	2	1	.765	.004	.018	.787
ENGINEERING PERSONNEL	6	3	8	.259	.037	.262	.558
OTHERS	0	0	0	.000	.000	.000	.000

Work Function	Number of Workers			Total Man-rem			Totals
	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>SPECIAL MAINTENANCE</b>							
Total	134	20	286	25.871	.754	76.936	103.561
MAINTENANCE PERSONNEL	77	11	225	14.109	.444	67.799	82.352
OPERATING PERSONNEL	2	3	2	.100	.033	.313	.446
HEALTH PHYSICS PERSONNEL	32	1	25	3.135	.023	1.199	4.357
SUPERVISORY PERSONNEL	3	2	0	.156	.076	.000	.232
ENGINEERING PERSONNEL	20	3	34	8.371	.178	7.625	16.174
OTHERS	0	0	0	.000	.000	.000	.000

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	Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers	
<b>DESIGN CHANGES</b>							
Total	14	1	81	.056	.002	2.687	2.745
MAINTENANCE PERSONNEL	9	0	74	.023	.000	2.585	2.608
OPERATING PERSONNEL	1	0	3	.000	.000	.067	.067
HEALTH PHYSICS PERSONNEL	0	0	0	.000	.000	.000	.000
SUPERVISORY PERSONNEL	0	1	0	.000	.002	.000	.002
ENGINEERING PERSONNEL	4	0	4	.033	.000	.035	.068
OTHERS	0	0	0	.000	.000	.000	.000

**ALL WORK FUNCTIONS**

Total	1511	361	1581	124.974	3.917	159.088	287.979
MAINTENANCE PERSONNEL	577	41	1147	71.837	.942	135.269	208.048
OPERATING PERSONNEL	476	164	80	17.204	.974	1.338	19.516
HEALTH PHYSICS PERSONNEL	240	25	224	21.403	.508	11.639	33.550
SUPERVISORY PERSONNEL	93	72	12	3.270	.783	.056	4.109
ENGINEERING PERSONNEL	125	59	118	11.260	.710	10.786	22.756
OTHERS	0	0	0	.000	.000	.000	.000

	Number of Workers			Totals
	Station Employees	Utility Employees	Contract Workers	
Total Individuals	663	280	1,115	2,058