

December 6, 1999

Mr. Janardan R. Pandey, P. E.
DEQ - Valley Regional Office
4411 Early Road
P. O. Box 1129
Harrisonburg, VA 22801



RE: North Anna Power Station - Service Water Reservoir

Dear Mr. Pandey:

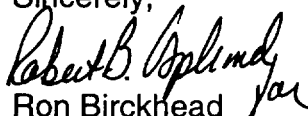
By letter of August 17, 1999, we requested permission to blowdown the service water reservoir through permitted outfall 108. You indicated per e-mail that the letter would be attached to our existing application (1995) for reissuance as an addendum.

The blowdown is expected to start next month. We plan to blowdown approximately 40,000,000 gallons in a batch operation. We anticipate that initially 2 to 3 batches will be discharged during the next several months. These will be followed by periodic smaller batch blowdowns at the rate of 1 or 2 per year. These will be addressed in our 2000 application for reissuance of the VPDES permit.

Attached for your information are the results of analyses of the most recent samples collected of the effluent from the service water reservoir for reissuance of the VPDES permit.

If you have any questions or desire additional information, please call me at (804) 273-2992.

Sincerely,


Ron Birckhead
Staff Engineer

cc:

U. S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth St., SW, Suite 23T85
Atlanta, GA 30303
RE: North Anna Units 1 and 2
Docket Nos. 50-338/50-339
License Nos. NPF-4/NPF-7

COOL

PAK ADDL 05000338

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
RE: North Anna Units 1 and 2
Docket Nos. 50-338/50-339
License Nos. NPF-4/NPF-7

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

ENVIRONMENTAL WATER ANALYSIS TEST RESULTS

LOCATION: NORTH ANNA

SUBMITTER: J. LIVINGSTONE

DESCRIPTION: OUTFALL 108
 SAMPLE DATE: 06/15/99

SYSTEM LAB NUMBER: 50626
 UNIT:

NOTE - TEST RESULTS ARE REPORTED DOWN TO MDL LEVELS.

PARAMETER	RESULT VALUE
-----	-----
ACIDS (PHENOLS)	: SEE GCMS REPORT-SHEET FOR ANALYSIS RESULTS
Aluminum as Al, ppb	: 61
Ammonia as N, PPM	: 0.20
Antimony as Sb, ppb	: <2
Arsenic as As, ppb	: <3
BASE NEUTRALS	: SEE GCMS REPORT SHEET FOR ANALYSIS RESULTS.
BOD, PPM	: 3.43
Barium as Ba, ppb	: 94
Beryllium as Be, ppb	: <0.2
Boron as B, PPM	: 2.10
Bromide as Br, PPM	: 61.10
COD, PPM	: 36.00
Cadmium as Cd, ppb	: <0.3
Chromium as Cr, ppb	: <1
Cobalt as Co, ppb	: <3
Color	: 40
Copper as Cu, ppb	: 4
Cyanide as CN, PPM	: <0.010
Flouride as F, PPM	: 0.706
GROSS ALPHA, pCi/L	: 2.90
GROSS BETA, pCi/L	: 25.00
Iron as Fe, PPM	: 0.27
Lead as Pb, ppb	: 1
MBAS as LAS, PPM	: <0.025
Magnesium as Mg, PPM	: 19.12
Manganese as Mn, ppb	: 192
Mercury as Hg, ppb	: <0.2
Molybdenum as Mo, ppb	: 106900
NO3+NO2, PPM	: 0.17
Nickel as Ni, ppb	: <5
Oil and Grease, PPM	: <5.00
Phenol, PPM	: 0.22
Selenium as Se, ppb	: <3
Silver as Ag, ppb	: <0.1
Sulfate as SO4, PPM	: 67.35
Sulfide, PPM	: <0.01
TK Nitrogen as N, PPM	: 2.56
TOC, PPM	: 18.1
TSS, PPM	: <4.0
Thallium as Tl, ppb	: <2
Tin as Sn, ppb	: <5
Titanium as Ti, ppb	: <10

ENVIRONMENTAL WATER ANALYSIS TEST RESULTS

LOCATION: NORTH ANNA

SUBMITTER: J. LIVINGSTONE

DESCRIPTION: OUTFALL 108
SAMPLE DATE: 06/15/99

SYSTEM LAB NUMBER: 50626
UNIT:

NOTE - TEST RESULTS ARE REPORTED DOWN TO MDL LEVELS.

PARAMETER	RESULT VALUE
-----	-----
Total Phos. as P, PPM	: 0.30
VOLATILES	: SEE GCMS REPORT SHEET FOR ANALYSIS RESULTS.
Zinc as Zn, PPM	: 0.015

VIRGINIA POWER SYSTEM LAB
SAMPLE ANALYSIS DATA SHEET

SYSTEM LAB #: 50626

Date Sampled: 06/15/99

Location: NORTH ANNA

Sample Point: OUTFALL 108

Analyst: C. HORN

Method of Analysis: EPA METHOD 624

Notes: The U designation in column Q indicates less than the value reported in column UG/L.

TARGET COMPOUNDS

CAS NO.	COMPOUND	CONCENTRATION UG/L	UNITS: UG/L	Q
74-87-3	Methyl Chloride	1.10		U
74-83-9	Methyl Bromide	1.40		U
75-01-4	Vinyl Chloride	1.80		U
75-00-3	Chloroethane	1.10		U
75-09-2	Methylene Chloride	2.80		U
107-02-8	Acrolein	40.80		U
107-13-1	Acrylonitrile	1.50		U
75-69-4	Trichlorofluoromethane	2.30		U
75-35-4	1 1-Dichloroethylene	2.80		U
75-34-3	1 1-Dichloroethane	4.70		U
156-60-5	1 2-Trans-Dichloroethylene	1.60		U
67-66-3	Chloroform	1.60		U
107-06-2	1 2-Dichloroethane	2.80		U
71-55-6	1 1 1-Trichloroethane	3.80		U
56-23-5	Carbon Tetrachloride	2.80		U
75-27-4	Dichlorobromomethane	2.20		U
78-87-5	1 2-Dichloropropane	6.00		U
10061-02-6	Trans-1 3-Dichloropropylene	0.90		U
10061-01-5	Cis-1 3-Dichloropropylene	5.00		U
79-01-6	Trichloroethylene	1.90		U
124-48-1	Chlorodibromomethane	3.10		U
79-00-5	1 1 2-Trichloroethane	5.00		U
71-43-2	Benzene	4.40		U
110-75-8	2-Chloroethylvinyl Ether	1.20		U
75-25-2	Bromoform	4.70		U
79-34-5	1 1 2 2-Tetrachloroethane	6.90		U
127-18-4	Tetrachloroethylene	4.10		U
108-88-3	Toluene	6.00		U
108-90-7	Chlorobenzene	6.00		U
100-41-4	Ethylbenzene	7.20		U

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SAMPLE ANALYSIS DATA SHEET

SYSTEM LAB #: 50626

Date Sampled: 06/15/99

Location: NORTH ANNA

Sample Point: OUTFALL 108

Analyst: C. HORN

Method of Analysis: EPA METHOD_625

Notes: The U designation in column Q indicates less than the value reported in column UG/L.

TARGET COMPOUNDS

CAS NO.	COMPOUND	CONCENTRATION UNITS: UG/L	Q
108-95-2-----	Phenol_____	2.70	U
95-57-8-----	2-Chlorophenol_____	3.30	U
88-75-5-----	2-Nitrophenol_____	3.60	U
105-67-9-----	2 4-Dimethyphenol_____	5.20	U
120-83-2-----	2 4-Dichlorophenol_____	5.60	U
59-50-7-----	P-Chloro-M-Cresol_____	7.50	U
88-06-2-----	2 4 6-Trichlorophenol_____	2.70	U
51-28-5-----	2 4-Dinitrophenol_____	42.00	U
100-02-7-----	4-Nitrophenol_____	2.40	U
534-52-1-----	4 6-Dinitro-O-Cresol_____	24.00	U
87-86-5-----	Pentachlorophenol_____	3.60	U

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Method of Analysis: EPA METHOD 625

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TARGET COMPOUNDS

CONCENTRATION UNITS:
UG/L

CAS NO.

COMPOUND

Q

CAS NO.	COMPOUND	CONCENTRATION UG/L	Q
62-75-9	N-Nitrosodimethylamine	6.20	U
111-44-4	bis(-2-Chloroethyl)Ether	5.70	U
541-73-1	1 3-Dichlorobenzene	3.10	U
106-46-7	1 4-Dichlorobenzene	4.40	U
108-60-1	bis(2-Chloroisopropyl)ether	5.70	U
95-50-1	1 2-Dichlorobenzene	4.00	U
67-72-1	Hexachloroethane	2.40	U
621-64-7	N-nitroso-Di-n-propylamine	3.60	U
98-95-3	Nitrobenzene	4.20	U
78-59-1	Isophorone	5.10	U
111-91-1	bis(2-Chloroethoxy)Methane	5.30	U
120-82-1	1 2 4-Trichlorobenzene	7.90	U
91-20-3	Naphthalene	3.80	U
87-68-3	Hexachlorobutadiene	1.80	U
77-47-4	Hexachlorocyclopentadiene	20.00	U
91-58-7	2-Chloronaphthalene	4.60	U
131-11-3	Dimethyl Phthalate	7.50	U
208-96-8	Acenaphthylene	3.50	U
606-20-2	2 6-Dinitrotoluene	3.40	U
83-32-9	Acenaphthene	3.00	U
121-14-2	2 4-Dinitrotoluene	5.70	U
84-66-2	Diethylphthalate	7.40	U
86-73-7	Fluorene	2.20	U
7005-72-3	4-Chlorophenyl-phenylether	4.20	U
86-30-6	N-nitrosodiphenylamine	2.70	U
122-66-7	1 2-Diphenylhydrazine	8.80	U
101-55-3	4-Bromophenyl-phenylether	3.00	U
319-84-6	Alpha BHC	3.10	U
118-74-1	Hexachlorobenzene	3.10	U
58-89-9	Gamma BHC	2.20	U
319-85-7	Beta BHC	4.20	U
85-01-8	Phenanthrene	5.40	U
120-12-7	Anthracene	1.90	U

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Method of Analysis: EPA METHOD 625

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TARGET COMPOUNDS

CONCENTRATION UNITS:

CAS NO. COMPOUND UG/L Q

CAS NO.	COMPOUND	UG/L	Q
319-86-8	Delta BHC	5.20	U
76-44-8	Heptachlor	4.30	U
84-74-2	Di-n-Butylphthalate	6.40	U
309-00-2	Aldrin	1.90	U
1024-57-3	Heptachlor epoxide	2.20	U
206-44-0	Fluoranthene	2.20	U
92-87-5	Benzidine	63.00	U
959-98-8	Alpha-Endosulfan	61.70	U
129-00-0	Pyrene	3.80	U
72-55-9	4,4'-DDE	5.60	U
72-20-8	Endrin	5.60	U
60-57-1	Dieldrin	4.40	U
7421-93-4	Endrin aldehyde	65.00	U
33213-65-9	Beta-Endosulfan	80.30	U
85-68-7	Butylbenzylphthalate	2.50	U
72-54-8	4,4'-DDD	4.10	U
50-29-3	4,4'-DDT	5.10	U
1031-07-8	Endosulfan sulfate	5.60	U
91-94-1	3,3'-Dichlorobenzidine	16.50	U
56-55-3	Benzo(a)Anthracene	7.80	U
218-01-9	Chrysene	2.50	U
117-81-7	bis(2-ethylhexyl)Phthalate	2.50	U
117-84-0	Di-n-octyl Phthalate	2.50	U
205-99-2	Benzo(b)fluoranthene	4.80	U
207-08-9	Benzo(k)fluoranthene	2.50	U
50-32-8	Benzo(a)pyrene	2.50	U
193-39-5	Indeno(1 2 3-cd)pyrene	3.70	U
53-70-3	Dibenzo(a h)anthracene	2.50	U
191-24-2	Benzo(g h i)perylene	4.10	U

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TARGET COMPOUNDS

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		UG/L	Q
57-74-9-----	Chlordane	10.00	U
8001-35-2-----	Toxaphene	50.00	U

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TARGET COMPOUNDS

CONCENTRATION UNITS:

CAS NO.	COMPOUND	UG/L	Q
11104-28-2-----	PCB 1221	30.00	U
11141-16-5-----	PCB 1232	50.00	U
12674-11-2-----	PCB 1016	50.00	U
53469-21-9-----	PCB 1242	50.00	U
11097-69-1-----	PCB 1254	36.00	U
12672-29-6-----	PCB 1248	50.00	U
11096-82-5-----	PCB 1260	50.00	U