50-338/339

Pamela F. Faggert
Vice President and Chief Environmental Officer
5000 Dominion Boulevard, Glen Allen, VA 23060
Phone: 804-273-3467

Dominion

CERTIFIED MAIL

February 15, 2002

Mr. Terry H. Darton
Air Permit Manager
DEQ – Fredericksburg Satellite Office
806 Westwood Office Park
Fredericksburg, VA 22401

RE: Converting North Anna Power Station's Exclusionary General Permit to a State Operating Permit

Dear Mr. Darton:

This letter is in response to your letter dated January 29, 2002 requesting either a State Operating Permit (SOP) Application by February 7, 2002 or Title V Permit Application by June 30, 2002 for the North Anna Power Station (Registration Number 40726). The deadline for the SOP was extended to February 15, 2002 in an e-mail from Mr. Dean Gossett of your office to Mr. Andy Gates of Dominion.

Dominion is applying for a SOP for the North Anna Power Station. In order to obtain a SOP, Dominion proposes to limit the hours of operation of the auxiliary boilers and emergency generators to keep the facility-wide nitrogen oxide (NO_x) emissions below the major source threshold of 100 tpy. All other criteria pollutants are below NO_x emission levels.

To maintain operational flexibility, Dominion proposes to limit the hours of each of three groups of equipment. In other words, Dominion would prefer to have an emission limit "bubble" for each group of emission units rather than a specific hourly limit for each unit. A precedent for this approach exists with Dominion's Possum Point facility in which two combustion turbines were recently given an annual limit for the total hours of operation for both turbines. The proposed annual limits are as follows:

ES-1 Auxiliary Boiler 4A & ES-2 Auxiliary Boiler 4B	500 Hours Total Combined
ES-3 Blackout Generator	500 Hours Total
ES-4 Emergency Diesel Generator ES-5 Emergency Diesel Generator ES-6 Emergency Diesel Generator ES-7 Emergency Diesel Generator	1,000 Hours Total Combined

A001
Rec'd 02/25/02

All other emission units at the North Anna Power Station are exempt from air permitting according to 9 VAC 5-80-720. Attachment A contains an emissions summary for the proposed annual limits for ES-1 through ES-7. Attachment B contains the SOP Application Form 7. If you have any questions or desire additional information, please call Andy Gates at (804) 273-2950.

Sincerely,

Pamela F. Faggert

Pamela F. Faggert

cc:

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

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
Docket Nos. 50-338/50-339
License Nos. NPF-4/NPF-7

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

ATTACHMENT A

North Anna Power Station
Auxiliary Boiler / Emergency Generator Emissions Summary

Emission Unit	Pollutant	Total Hrs of Operation for Both Boilers	lbs/hr/unit*	Tons/year
ES-1 Aux Boiler 4A & ES-2 Aux Boiler 4B Combined	CO	500	3.24	0.81
	Lead (Pb)		0.00	0.00
	NO_x		12.96	3.24
	TSP		1.30	0.32
	PM_{10}		0.70	0.17
	SO_2		18.40	4.60
	VOC		0.22	0.06

Emission Unit	Pollutant	Total Hrs of Operation for Blackout Generator	lbs/hr**	Tons/year
ES-3 Blackout Generator	CO	500	29.90	7.48
	NO_x		157.20	39.30
	TSP		2.30	0.58
	PM_{10}		1.80	0.45
	SO_2		18.50	4.63
	VOC		6.70	1.68

Emission Unit	Pollutant	Total Hrs of Operation for All Generators	lbs/hr/unit*	Tons/year
ES-4 Emergency Diesel Generator ES-5 Emergency Diesel Generator ES-6 Emergency Diesel Generator ES-7 Emergency Diesel Generator	CO	1000	29.85	14.92
	NO_x		112.36	56.18
	TSP		2.45	1.22
	PM_{10}		2.01	1.01
	SO_2		7.09	3.55
	VOC		2.88	1.44

	Pollutant	Tons/year
TOTAL ANNUAL EMISSIONS	CO	23.21
	Lead (Pb)	0.00
	NO_x	98.72
	TSP	2.12
	PM_{10}	1.63
	SO_2	12.77
	VOC	3.17

* Pound per hour emission rates are based on AP-42 emission factors.
** Based on hourly limits in permit dated October 20, 1993, as amended.

ATTACHMENT B

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality

AIR PERMIT APPLICATION

General information

CHECK ALL FORMS THAT APPLY AND LIST ALL ATTACHED DOCUMENTS.

MAP AND LOCALITIES LIST (information), Pages iii-iv
CONFIDENTIAL INFORMATION, Page v
FORMULA-BASED HAZARDOUS AIR POLLUTANT INFORMATION, Page vi
HAZARDOUS AIR POLLUTANT LIST (information), Pages vii-viii
__ REQUEST FOR LOCAL GOVERNMENT CERTIFICATION FORM, Page ix
_1_ CONTENTS AND DOCUMENT CERTIFICATION, Page 1
_1_ GENERAL INFORMATION, Page 2
_1_ GENERAL INFORMATION (continued), Page 3
_1_ FUEL-BURNING EQUIPMENT, Page 4
__ PROCESSING, Page 5
__ INKS, COATINGS, STAINS, AND ADHESIVES, Page 6
__ INCINERATORS, Page 7
__ VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS, Page 8
__ VOLATILE ORGANIC COMPOUND/PETROLEUM STORAGE TANKS CONTINUED, Page 9
__ LOADING RACKS AND OIL-WATER SEPARATORS, Page 10
_1_ STACK PARAMETERS AND FUEL DATA, Page 11
__ AIR POLLUTION CONTROL AND MONITORING EQUIPMENT, PAGE 12
__ AIR POLLUTION CONTROL/SUPPLEMENTAL INFORMATION, PAGE 13
_1_ CRITERIA POLLUTANT EMISSIONS, Page 14
__ TOXIC OR HAP OR OTHER EMISSIONS, Page 15
_1_ OPERATING PERIODS, Page 16

LIST ATTACHED DOCUMENTS

__ MAP __ FACILITY SITE PLAN __ PROCESS FLOW DIAGRAM/SCHEMATIC
__ MSDS SHEETS _1_ ESTIMATED EMISSIONS SUMMARY __ STACK TESTS
__ AIR MODEL DATA __ LOCAL GOVERNING BODY CERTIFICATION FORM

Note added form sheets above; also indicate the number of copies of each form in blank provided.

DOCUMENT CERTIFICATION FORM

(see other side for instructions)

I certify under penalty of law that this document and all attachments [as noted above] were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE: DAH DATE: 2-13-02

NAME: D. A. Heacock

TITLE: Site Vice President REGISTRATION NUMBER: 40726

COMPANY: Virginia Electric and Power Company

References: Virginia Regulations, 9 VAC 5-80-10.D.4. See reverse of this form for instructions.

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION

PERSON COMPLETING FORM	DATE	REGISTRATION NUMBER
C. C. Taylor, Director - Electric Environmental Services	02/15/2002	40726

REASON(S) FOR SUBMISSION:

☒ OPERATING PERMIT

☐ RENEWAL OF OPERATING PERMIT (CURRENT PERMIT EXPIRATION DATE: _____)

☐ MODIFICATION

☐ NEW SOURCE

☐ EXEMPTION

☐ REGISTRATION UPDATE

THIS PERMIT IS APPLIED FOR PURSUANT TO THE FOLLOWING PROVISION(S) OF THE VIRGINIA REGULATIONS OR FEDERAL REGULATIONS (IF KNOWN):
__ 9 VAC 5-80-10 (NEW AND MOD. SOURCES)
__ 9 VAC 5-80-20 (PSD, MAJOR SOURCES)
__ 9 VAC 5-80-30 (NON-ATTAINMENT MAJOR SOURCES)
_X_ 9 VAC 5-80-40 (STATE OPERATING PERMITS)

☐ OWNERSHIP OR NAME CHANGE - EFFECTIVE DATE: _____
(COMPLETE PAGES 1 AND 2 ONLY)

☐ OTHER (SPECIFY) _____

COMPANY AND DIVISION NAME:
Virginia Electric and Power Company, North Anna Power Station

MAILING ADDRESS:
5000 Dominion Boulevard, Glen Allen, Virginia 23060

TELEPHONE NUMBER:	NUMBER OF EMPLOYEES AT SITE:	PROPERTY AREA AT SITE:
(804) 273-2929	Approx. 1,000	1,855 Acres

EXACT SOURCE LOCATION - INCLUDE NAME OF CITY (COUNTY) AND FULL STREET ADDRESS OR DIRECTIONS:
North end of Route 700, Louisa County, Virginia

PERSON TO CONTACT ON AIR POLLUTION MATTERS - NAME AND TITLE:	PHONE NUMBER:
Pamela F. Faggert Vice President and Chief Environmental Officer	(804) 273 - 3467
	FAX NUMBER, IF AVAILABLE: (804) 273 - 3410

FOR OFFICIAL USE ONLY

COUNTY CODE:	PLANT ID NUMBER:	UTM NUMBERS:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PERMIT APPLICATION GENERAL INFORMATION (continued)

COMPANY NAME	DATE	REGISTRATION NUMBER
Virginia Electric and Power Company	02/15/2002	40726

IS THE FACILITY TO BE PERMITTED AS A PORTABLE PLANT? YES __ NO X

DESCRIBE THE PRODUCTS MANUFACTURED AND/OR SERVICES PERFORMED AT THIS FACILITY:

Generation of electricity for sale

LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THE FACILITY:

4	9	1	1												

PRIMARY SIC

PLEASE LIST ALL THE FACILITIES IN VIRGINIA UNDER COMMON OWNERSHIP OR CONTROL BY THE OWNER OF THIS FACILITY:

Numerous facilities throughout the eastern 2/3 of Virginia

MILESTONES. This section is to be completed if the permit application includes a new emissions unit or modification to existing operations.

MILESTONES*	STARTING DATE	ESTIMATED COMPLETION DATE
New equipment installation	N/A	
Modification of existing process or equipment	N/A	
Start-up dates	N/A	

* For new or modified installations to be constructed in phased schedule, give construction/installation starting and completion date for each phase.

FUEL-BURNING EQUIPMENT AND STATIONARY COMBUSTION ENGINES (EXCEPT INCINERATORS) (BOILERS, TURBINES, GAS/DIESEL ENGINES, KILNS, ETC.):

COMPANY NAME Virginia Electric and Power Company	DATE 02/15/2002	REGISTRATION NUMBER 40726

UNIT REF. NO.	EQUIPMENT MANUFACTURER AND MODEL NUMBER, IF KNOWN; OTHERWISE, TYPE OF EQUIPMENT (DATE OF MANUFACTURE OR CONSTRUCTION)	MOD CODE *	MAXIMUM RATED INPUT HEAT CAPACITY FOR EACH FUEL (MILLION BTU/HR)	TYPE OF FUEL	TYPE OF EQUIPMENT (USE CODE A)	MAXIMUM RATED OUTPUT APPROPRIATE TO SOURCE TYPE			USAGE (USE CODE B)
						STEAM QUANTITY (lb/hr)	OUTPUT BRAKE HORSEPOWER (BHP)	ELECTRICAL POWER (KW)	
ES-1	Riley auxiliary boiler 4A Constructed 1972	0	90.7	No. 2 / Diesel Fuel Oil	9				1
ES-2	Riley auxiliary boiler 4B Constructed 1972	0	90.7	No. 2 / Diesel Fuel Oil	9				1
ES-3	Blackout generator Caterpillar 3600 Series	0	36.6	No. 2 / Diesel Fuel Oil	16		5,605	4,000	6
ES-4	Emergency diesel generator Fairbanks Morse, Inc.	0	35.1	No. 2 / Diesel Fuel Oil	16			3,250 kW continuous output	6

Code A – Equipment

BOILER TYPE:
1. Pulverized Coal - Wet Bottom
2. Pulverized Coal - Dry Bottom
3. Pulverized Coal - Cyclone Furnace
4. Spreader Stoker
5. Chain or Travelling Grate Stoker
6. Underfeed Stoker
7. Hand Fired Coal
8. Oil, Tangentially Fired
9. Oil, Horizontally Fired (except rotary cup)
10. Gas, Tangentially Fired
11. Gas, Horizontally Fired

Code A (continued)

12. Wood with Flyash Reinjection
13. Wood without Flyash Reinjection
14. Other Specify _____

STATIONARY ENGINE TYPE:
15. Combustion Turbine
16. Internal Combustion Engine
17. Other Specify _____

OTHER COMBUSTION UNITS:
18. Oven / Kiln
19. Rotary Kiln
18. Process Furnace
99. Other Specify _____

Code B - Usage

1. Steam Production
2. Drying / Curing
3. Space Heating
4. Process Heat
5. Food Processing
6. Electrical Generation
7. Mechanical Work
99. Other _____

* FOR MODIFICATION CODES SEE INSTRUCTIONS ON NEXT PAGE.

FUEL-BURNING EQUIPMENT AND STATIONARY COMBUSTION ENGINES (EXCEPT INCINERATORS)
(BOILERS, TURBINES, GAS/DIESEL ENGINES, KILNS, ETC.):

COMPANY NAME Virginia Electric and Power Company	DATE 02/15/2002	REGISTRATION NUMBER 40726

UNIT REF. NO.	EQUIPMENT MANUFACTURER AND MODEL NUMBER, IF KNOWN; OTHERWISE, TYPE OF EQUIPMENT (DATE OF MANUFACTURE OR CONSTRUCTION)	MOD CODE *	MAXIMUM RATED INPUT HEAT CAPACITY FOR EACH FUEL (MILLION BTU/HR)	TYPE OF FUEL	TYPE OF EQUIPMENT (USE CODE A)	MAXIMUM RATED OUTPUT APPROPRIATE TO SOURCE TYPE			USAGE (USE CODE B)
						STEAM QUANTITY (lb/hr)	OUTPUT BRAKE HORSEPOWER (BHP)	ELECTRICAL POWER (KW)	
ES-5	Emergency diesel generator Fairbanks Morse, Inc.	0	35.1	No. 2 / Diesel Fuel Oil	16			3,250 kW continuous output	6
ES-6	Emergency diesel generator Fairbanks Morse, Inc.	0	35.1	No. 2 / Diesel Fuel Oil	16			3,250 kW continuous output	6
ES-7	Emergency diesel generator Fairbanks Morse, Inc.	0	35.1	No. 2 / Diesel Fuel Oil	16			3,250 kW continuous output	6

Code A - Equipment
BOILER TYPE:
1. Pulverized Coal - Wet Bottom
2. Pulverized Coal - Dry Bottom
3. Pulverized Coal - Cyclone Furnace
4. Spreader Stoker
5. Chain or Travelling Grate Stoker
6. Underfeed Stoker
7. Hand Fired Coal
8. Oil, Tangentially Fired
9. Oil, Horizontally Fired (except rotary cup)
10. Gas, Tangentially Fired
11. Gas, Horizontally Fired

Code A (continued)
12. Wood with Flyash Reinjection
13. Wood without Flyash Reinjection
14. Other Specify _____
STATIONARY ENGINE TYPE:
15. Combustion Turbine
16. Internal Combustion Engine
17. Other Specify _____
OTHER COMBUSTION UNITS:
18. Oven / Kiln
19. Rotary Kiln
18. Process Furnace
99. Other Specify _____

Code B – Usage
1. Steam Production
2. Drying / Curing
3. Space Heating
4. Process Heat
5. Food Processing
6. Electrical Generation
7. Mechanical Work
99. Other _____

* FOR MODIFICATION CODES SEE INSTRUCTIONS ON NEXT PAGE.

STACK PARAMETERS AND FUEL DATA:

COMPANY NAME	Virginia Electric and Power Company	DATE 02/15/2002	REGISTRATION NUMBER 40726

		VENT/STACK OR EXHAUST DATA						FUEL(S) DATA						
UNIT REF. NO.	VENT/ STACK NO.	VENT/ STACK CONFIG. (USE CODE K)	VENT STACK HEIGHT (feet)	EXIT DIA. (feet)	EXIT GAS VELOCITY (fpm)	EXIT GAS VOLUME (acfm)	EXIT GAS TEMP. (°F)	TYPE OF FUEL	MAX. RATED BURNED/ HOUR (SPECIFY UNITS)	MAX. EXPECTED BURNED/ DAY (SPECIFY UNITS)	MAX. EXPECTED BURNED/ YEAR (SPECIFY UNITS)	HIGHER HEATING VALUE (SPECIFY UNITS)	MAX. % SULFUR	MAX. % ASH
ES-1	EP-1	1	80	7	714	27,496	518	Distillate (Diesel or No. 2)	647.9 gal	15,550 gal	323,950 gal	140,000 Btu/gal	0.2	trace
ES-2	EP-2	1	80	7	714	27,496	518	Distillate (Diesel or No. 2)	647.9 gal	15,550 gal	323,950 gal	140,000 Btu/gal	0.2	trace
ES-3	EP-3	3	30	2.17	8,440	31,044	800	Distillate (Diesel or No. 2)	261.4 gal	6,274 gal	130,700 gal	140,000 Btu/gal	0.2	trace
ES-4 ES-5 ES-6 ES-7	EP-4 EP-5 EP-6 EP-7	2	15	2	4,042	12,700	800	Distillate (Diesel or No. 2)	250.8 gal (ea)	6,020 gal (ea)	250,800 gal (total)	140,000 Btu/gal	0.2	trace

Code K - Vent/Stack Configuration

1. Unobstructed vertical discharge
2. Obstructed vertical discharge (e.g., raincap)
3. Horizontal or downward discharge (e.g., T-stack)
99. Other (specify) _____

CRITERIA POLLUTANT EMISSIONS:

COMPANY NAME	Virginia Electric and Power Company	DATE 02/15/2002	REGISTRATION NUMBER 40726

UNIT REF. NO.	MODE CODE	*MAXIMUM* EMISSION RATES TO ATMOSPHERE OF *CRITERIA* POLLUTANTS														STATE OPERATING PERMIT EMISSION CAP (Yes/No)	BASIS OF ESTIMATE (USE CODE M)
		TOTAL SUSPENDED PARTICULATES (TSP) *		10 µM OR SMALLER PARTICULATES * (PM_{10})		SULFUR DIOXIDE (SO_2)		NITROGEN OXIDES (NO_X)		CARBON MONOXIDE (CO)		VOLATILE ORGANIC COMPOUNDS * (VOC)		LEAD (Pb)			
		lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr		
ES-1 & ES-2	0	1.30	0.32	0.70	0.17	18.40	4.60	12.96	3.24	3.24	0.81	0.22	0.06	0.00	0.00	Yes	3 AP-42
ES-3	0	2.30	0.58	1.80	0.45	18.50	4.63	157.20	39.30	29.90	7.48	6.70	1.68	0.00	0.00	Yes	3 AP-42
ES-4, ES-5, ES-6, ES-7	0	2.45	1.22	2.01	1.01	7.09	3.55	112.36	56.18	29.85	14.92	2.88	1.44	0.00	0.00	Yes	3 AP-42
TOTAL			2.12		1.63		12.78		98.72		23.21		3.18		0.00		

Code M - Emission Estimate Method (provide detailed calculations including assumed control efficiency of control equipment to support reported values.)

1. Stack Test (include a copy of summary)
2. Material Balance (include calculations)
3. Emission Factor (identify source) and include calculations

99. Other (describe)

* TSP, PM_{10}, and VOCs should also be split up by component and reported under TOXIC OR HAZARDOUS POLLUTANTS.

OPERATING PERIODS: (Optional use, to establish restriction on operating hours.)

COMPANY NAME	DATE	REGISTRATION NUMBER
Virginia Electric and Power Company	02/15/2002	40726

UNIT REF. NO.	PERCENT ANNUAL USE/THROUGHPUT BY SEASON				NORMAL PROCESS/EQUIPMENT OPERATING SCHEDULE			MAXIMUM EQUIPMENT/PROCESS OPERATING SCHEDULE		
	DECEMBER -------- FEBRUARY	MARCH ----- MAY	JUNE ------ AUGUST	SEPTEMBER --------- NOVEMBER	HOURS PER DAY	DAYS PER WEEK	HOURS PER YEAR	HOURS PER DAY	DAYS PER WEEK	HOURS PER YEAR
ES-1, ES-2	25	25	25	25			250 (total combined)	24	7	500 (total combined)
ES-3	25	25	25	25			50	24	7	500
ES-4, ES-5, ES-6, ES-7	25	25	25	25			250 (total combined)	24	7	1,000 (total combined)

MAXIMUM FACILITY OPERATING SCHEDULE		
HOURS PER DAY	DAYS PER WEEK	WEEKS PER YEAR
24	7	52