

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



November 13, 2002

Mr. Terry H. Darton
Air Permit Manager
Virginia Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193

Re: North Anna Power Station (Registration No. 40726) Air Permit Application
for a Portable Concrete Plant

Dear Mr. Darton:

North Anna Power Station (North Anna) is scheduled to undergo repairs over the next several months. Approximately 490 yards of concrete will be required in order to complete these repairs. Dominion is proposing to contract Williams Concrete, Inc. of Maumee, Ohio, to provide a portable batch concrete plant at North Anna to produce the concrete. It is anticipated that the concrete plant will be on-site from early December 2002 through March 2003. The concrete plant will be located on North Anna property, approximately 0.5 miles from the pour site.

Raw materials in support of the project will include one 500 ton pile of sand, one 500 ton pile of aggregate, and 125 tons of cement in watertight bins. The piles of sand and aggregate will be covered and penned-in on all four sides while not being used.

A 241 horsepower diesel generator will power the concrete plant. In addition, two small heaters will be used in the event of extreme cold weather. One heater will be a propane-fired water heater to heat the water used in the concrete. The other heater will be a diesel-fired ground heater, which will heat ethylene glycol that will be circulated through piping. The ground heater piping would be placed on the aggregate pile to keep the aggregate from freezing. Both heaters are less than 1 MMBtu/hr heat input capacity.

Pursuant to discussions with Mr. Dean Gossett of your office, pages 1, 2, and 3 of the Air Permit Application (Form 7) have been included (Attachment 1) and Mr. Mark Williams, President of Williams Concrete, Inc. (owner of the concrete plant), has signed the Form.

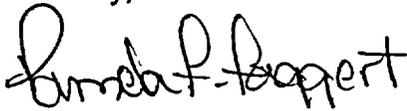
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Conservative calculations of the raw material handling and truck traffic using AP-42 emission factors yielded estimates of 1.56 tons of total particulate matter (PM) per year and 0.33 tons of particulate matter less than 10 microns (PM₁₀) per year. Actual site conditions will result in much lower PM and PM₁₀ emissions. Emissions from the diesel generator and heaters in addition to the PM and PM₁₀ emissions from raw material transfers and truck traffic will be far below permit exemption levels in 9 VAC 5-80-1320(C). See Attachment 2 for emissions calculations.

If you have any questions, please contact Andy Gates at 804-273-2950 or Andy_Gates@dom.com.

Sincerely,



Pamela F. Faggert

Attachment 1 – Form 7 (pages 1-3)
Attachment 2 – Emissions Calculations

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 1

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-vi
- CONFIDENTIAL INFORMATION, Page vii
- FORMULA-BASED HAZARDOUS AIR POLLUTANT INFORMATION, Page viii
- HAZARDOUS AIR POLLUTANT LIST (information), Pages ix-x
- REQUEST FOR LOCAL GOVERNMENT CERTIFICATION FORM, Pages xi-xii
- CONTENTS AND DOCUMENT CERTIFICATION, Page 1
- GENERAL INFORMATION, Page 2
- GENERAL INFORMATION (continued), Page 3
- 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
- STACK PARAMETERS AND FUEL DATA, Page 11
- AIR POLLUTION CONTROL AND MONITORING EQUIPMENT, PAGE 12
- AIR POLLUTION CONTROL/SUPPLEMENTAL INFORMATION, PAGE 13

- CRITERIA POLLUTANT EMISSIONS, Page 14
- TOXIC OR HAP OR OTHER EMISSIONS, Page 15
- OPERATING PERIODS, Page 16

LIST ATTACHED DOCUMENTS

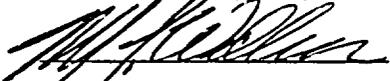
- MAP of SITE LOCATION
- FACILITY SITE PLAN
- PROCESS FLOW DIAGRAM/SCHEMATIC
- MSDS or CPDS SHEETS
- ESTIMATED EMISSIONS CALCULATIONS
- STACK TESTS
- AIR MODEL DATA
- LOCAL GOVERNING BODY CERTIFICATION FORM

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: 
 NAME: Mark Williams
 TITLE: President
 COMPANY: Williams Concrete, Inc

DATE: 4/2/2002
 REGISTRATION NUMBER: N/A

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
Bob Asplund	11-9-02	N/A

REASON(S) FOR SUBMISSION:

OPERATING PERMIT

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

MODIFICATION

NEW SOURCE

EXEMPTION

REGISTRATION UPDATE

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

OTHER (SPECIFY) _____

THIS PERMIT IS APPLIED FOR PURSUANT TO THE FOLLOWING PROVISION(S) OF THE VIRGINIA REGULATIONS OR FEDERAL REGULATIONS (IF KNOWN):

9 VAC 5-80-1100 (NEW AND MOD. SOURCES)

9 VAC 5 Chapter 80, Article 8 (PSD, MAJOR SOURCES)

9 VAC 5 Chapter 80, Article 9 (NON-ATTAINMENT MAJOR SOURCES)

9 VAC 5 Chapter 80, Article 5 (STATE OPERATING PERMITS)

Would you be interested in a DEQ Pollution Prevention (P2) site visit to discuss the potential benefits of implementing P2 practices at your facility? Please note that there is no charge for this service and that the site visit is not limited to air pollution issues. Site visits can yield air/water pollution or waste minimization recommendations that can benefit your facility. The purpose of these visits is not to assess compliance with applicable regulatory requirements.

Yes No

If yes, would you prefer the P2 site visit to occur:

Before permit issuance After permit issuance

COMPANY AND DIVISION NAME:

Williams Concrete, Inc.

MAILING ADDRESS

P O. Box 147
 Maumee, OH 43537-0147

TELEPHONE NUMBER:
 (888) 893-3251

NUMBER OF EMPLOYEES AT SITE:
 4

PROPERTY AREA AT SITE:
 0.75 Acres

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

PERSON TO CONTACT ON AIR POLLUTION MATTERS - NAME AND TITLE:

Pamela F Faggert
 Vice President and Chief Environmental Officer
 Dominion

PHONE NUMBER:
 (804) 273 - 3467

FAX NUMBER:
 (804) 273 - 3410

Please check here if you obtained this form from the DEQ website.

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
Williams Concrete, Inc.	11-9-02	N/A

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

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

This portable concrete plant will be on-site at North Anna Power Station from December 2002 through March 2003 and will produce approximately 390 yards of concrete to complete facility repairs.

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

3531

PRIMARY SIC	SECONDARY SICs

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

N/A

-

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	12-1-02	3-31-03
Modification of existing process or equipment		
Start-up dates	December 2002	

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

ATTACHMENT 2

**North Anna Power Station
Concrete Batch Plant
PM Emissions from Raw Materials and Truck Traffic**

Project entails making 490 yards of concrete for facility repairs.
Each yard weighs approximately 3,500 lbs.

Table displaying Component Weights of Concrete

Data from footnote in Table 11.12.1	Cement Dust	Cement Supplement	Sand	Coarse Aggregate	Water	Total
Weight (lbs)	491	73	1,428	1,865	167	4,024
percent of total weight	12.2%	1.8%	35.5%	46.4%	4.1%	100.0%

Table displaying the component weights of 386 yards of concrete

Parameter	Cement Dust	Cement Supplement	Sand	Coarse Aggregate	Water	Total
Weight (lbs)	209,281	31,115	608,664	794,929	71,011	1,715,000
percent of total weight	12.2%	1.8%	35.5%	46.4%	4.1%	100.0%

PM Emissions from Portable Concrete Plant [Emission Factors from Table 11.12-2 in AP-42 dated 10/01]

Activity	Emission Factor	Parameter	PM emissions (lbs)
Sand transfer to elevated bin	0.0021 lbs PM/ton	304 tons sand	1
Aggregate transfer to elevated bin	0.0069 lbs PM/ton	397 tons aggregate	3
Cement unloading to elevated storage silo (pneumatic)	0.72 lbs PM/ton	105 tons cement dust	75
Cement supplement unloading to elevated storage silo (pneumatic)	3.14 lbs PM/ton	16 tons cement supp	49
Weight hopper loading	0.0051 lbs PM/ton	822 tons dry materials	4
Mixer loading (central mix)	0.22 lbs PM/ton	822 tons dry materials	181
TOTAL PM EMISSIONS FROM PORTABLE CONCRETE PLANT			313

* Uncontrolled emission factors. The cement transfer point will be controlled by a 98.5% efficient baghouse.

**North Anna Power Station
Concrete Batch Plant
PM₁₀ Emissions from Raw Materials and Truck Traffic**

Project entails making 490 yards of concrete for facility repairs.
Each yard weighs approximately 3,500 lbs.

Table displaying Component Weights of Concrete

Data from footnote in Table 11.12-1	Cement Dust	Cement Supplement	Sand	Coarse Aggregate	Water	Total
Weight (lbs)	491	73	1,428	1,865	167	4,024
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Table displaying the component weights of 386 yards of concrete

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Weight (lbs)	209,281	31,115	608,664	794,929	71,011	1,715,000
percent of total weight	12.2%	1.8%	35.5%	46.4%	4.1%	100.0%

PM₁₀ Emissions from Portable Concrete Plant [Emission Factors from Table 11.12-2 in AP-42 dated 10/01]

Activity	Emission Factor	Parameter	PM ₁₀ emissions (lbs)
Sand transfer to elevated bin*	0.00099 lbs PM10/ton	304 tons sand	0
Aggregate transfer to elevated bin	0.0033 lbs PM10/ton	397 tons aggregate	1
Cement unloading to elevated storage silo (pneumatic)	0.46 lbs PM10/ton	105 tons cement dust	48
Cement supplement unloading to elevated storage silo (pneumatic)	1.10 lbs PM10/ton	16 tons cement supp	17
Weight hopper loading	0.0024 lbs PM10/ton	822 tons dry materials	2
Mixer loading (central mix)	0.08 lbs PM10/ton	822 tons dry materials	64
TOTAL PM₁₀ EMISSIONS FROM PORTABLE CONCRETE PLANT			133

* Uncontrolled emission factors. The cement transfer point will be controlled by a 98.5% efficient baghouse.

*North Anna Power Station
Concrete Batch Plant
Diesel Generator &
Ground Heater Emissions*

The concrete batch plant will be using a 241 Hp Caterpillar 3208 diesel generator to power the mixing drum. In the event of extreme cold weather, a diesel-fired "ground heater" will be used to keep the aggregate from freezing. The generator and ground heater are expected to burn no more than 4,000 gallons of diesel fuel to complete the project.

$$4,000 \text{ gallons diesel} \quad \times \quad 137,000 \text{ BTU/gal} \quad = \quad 548 \text{ MMBtu Total Heat Input}$$

Diesel Generator Emissions [Emission Factors from Table 3.3-1 in AP-42 dated 10/96]

Pollutant	Emission Factor	Total Emissions
NO _x	4.41 lb/MMBtu	1.21 tons
CO	0.95 lb/MMBtu	0.26 tons
SO _x	0.29 lb/MMBtu	0.08 tons
PM ₁₀	0.31 lb/MMBtu	0.08 tons
VOC	0.36 lb/MMBtu	0.10 tons

**North Anna Power Station
Concrete Batch Plant
Hot Water Heater Emissions**

In the event of extreme cold weather, a hot water heater will be used to heat water for use in the concrete. The heater is rated at 900,000 Btu/hr. As a very conservative estimate, the calculation has assumed operation of 24 hours/day for 1 full month.

$$\begin{aligned}
 &0.9 \text{ MMBtu/hr} \quad \times \quad 31 \text{ days/month} \quad \times \quad 24 \text{ hrs/day} \quad = \quad 669.6 \text{ MMBtu/month} \\
 669.6 \text{ MMBtu/month} \quad / \quad 0.094 \text{ MMBtu/gal} \quad = \quad 7,123 \text{ gallons propane}
 \end{aligned}$$

Emission Factors for LPG Combustion [Emission Factors from Table 1.5-1 in AP-42 dated 10/96]

Pollutant	Emission Factor	Total Emissions
NO _x	14 lb/1000 gal	0.05 tons
CO	1.9 lb/1000 gal	0.01 tons
SO _x	0.016 lb/1000 gal	0.00 tons
PM ₁₀	0.4 lb/1000 gal	0.00 tons
VOC	0.5 lb/1000 gal	0.00 tons