Part B Permit Application

Virginia Electric and Power Company
Chesterfield Power Station
Upper (East) Pond
Chesterfield County, Virginia

GAI Project Number: C150035.00
January 2016
Part B Permit Application

Virginia Electric and Power Company
Chesterfield Power Station
Upper (East) Pond
Chesterfield County, Virginia

GAI Project Number: C150035.00

January 2016

Prepared for:
Virginia Electric and Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Prepared by:
GAI Consultants, Inc.
Richmond Office
4198 Cox Road, Suite 114
Glen Allen, VA 23060
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Notice of Intent

DEQ Form SW PTB (Part B Application Form)

CCR Closure Plan

Post-Closure Care Plan
January 7, 2016

Mr. Justin Williams
Director, Office of Waste Permitting and Compliance
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subj: Solid Waste Permit Application for Closure of the Upper (East) Pond
       Chesterfield Power Station, Chesterfield County, Virginia

Dear Mr. Williams:

Dominion is submitting the attached Part B solid waste permit application package for the
closure of the Upper (East) Pond at the Chesterfield Power Station located in Chesterfield
County, Virginia. The attached application includes the following information:

- Solid Waste Disposal Facility Part B Application Form (DEQ Form SW PTB)
- Notice of Inten. for Closure
- CCR Closure Plan
- Post-Closure Care Plan

As previously discussed, the Groundwater Monitoring Plan will be submitted under separate
cover.

If you have any questions, please contact Dennis Slade at (804) 273-2658 or Kim Lanterman
at (804) 273-4123.

Sincerely,

Cathy C. Taylor
Director
Electric Environmental Services

Attachments
NOTICE OF INTENT
January 8, 2016
Project C150035.00

Mr. Justin Williams
Director, Office of Waste Permitting and Compliance
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Chesterfield Power Station
Notice of Intent – Closure of Upper (East) Pond
Part B Permit Application
Chesterfield County Virginia

Dear Mr. Williams:

In accordance with 9 Virginia Administrative Code (VAC) 20-81-450 of the Virginia Solid Waste Management Regulations, Virginia Electric and Power Company d/b/a Dominion Virginia Power (Dominion) is hereby providing a Notice of Intent (NOI) to close the Upper (East) Pond Coal Combustion Residuals (CCR) surface impoundment at the Chesterfield Power Station (Station) per the requirements in the United States Environmental Protection Agency’s (EPA’s) “Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments” (CCR Rule), which was published in the Federal Register on April 17, 2015 (with an effective date of October 19, 2015) (40 CFR 257). Through this application, the closure process will transition to the Solid Waste Management Program. To date, discharge from the Upper (East) Pond has been regulated under the facility’s VPDES permit (No. VA 004146), and closure has been initiated in accordance with that permit, which includes a Closure Plan approved by the Virginia Department of Environmental Quality (VDEQ) in 2003.

This Part B Permit application incorporates the applicable portions of 9 VAC 20-81 et seq. and the CCR Rule. The Upper (East) Pond Closure Plan includes the installation of an engineered cover system in accordance with the CCR Rule.

Two drawings are attached to this Notice of Intent (NOI) Letter:

- Figure 1, Site Location Map, and
- Figure 2, Upper (East) Pond Facility Boundary and Waste Management Unit Boundary

The enclosed Part B Permit Application and this NOI are provided to the VDEQ for review. The following documents are included with this application:

- Part B Permit Application;
- CCR Closure Plan, including:
  - Certification that the engineered cover system has been designed in accordance with the CCR Rule;
  - Closure Design Plans;
  - Construction Quality Assurance Plan and Technical Specifications;
  - Engineering Calculations; and
  - Closure Cost Estimate
Mr. Justin Williams  
January 8, 2016  
Project C150035.00

- Post-Closure Care Plan, including Post-Closure Cost Estimate

A Groundwater Monitoring Plan for the closure of the Upper (East) Pond will be submitted to the VDEQ via a separate transmittal.

Please confirm receipt of this NOI. Please contact Mr. Dennis Siade with Dominion at 804-273-2658 or dennis.a.slade@dom.com if you need additional information or have any questions or comments concerning this NOI and permit application submittal.

Sincerely,

GAI Consultants, Inc.

[Signature]

Donald J. Spaeder, P.E.  
Assistant Vice President

DJS/dr
### Solid Waste Disposal Facility Part B Application, DEQ Form SW PTB

<table>
<thead>
<tr>
<th>Solid Waste Permit No.</th>
<th>SWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Facility</td>
<td>☐</td>
</tr>
<tr>
<td>Modification of existing Part B permit</td>
<td>☐</td>
</tr>
</tbody>
</table>

#### Facility Information

- **Facility Name:** Dominion Chesterfield Power Station Upper (East) Pond
- **Type of Landfill:** Surface Impoundment
- **Facility Location:** 451 Coxendale Rd, Chester, VA 23836 (37d 22m 15.2sec N, 77d 22m 8.3sec W)
- **Contact Person:** Ms. Cathy C. Taylor, Director, Electric Environmental Services
- **Contact Number:** 804-273-2929

#### Owner and Operator Information

- **Owner Name, Address, and Phone:**
  - Mr. David A. Craymer
  - Vice President, Power Generation System Operations
  - Virginia Electric and Power Company
  - 5000 Dominion Boulevard
  - Glen Allen, Virginia 23060

- **Operator Name, Address, and Phone:**
  - Mr. David A. Craymer
  - Vice President, Power Generation System Operations
  - Virginia Electric and Power Company
  - 5000 Dominion Boulevard
  - Glen Allen, Virginia 23060

#### Site Information

- **Total Property Acreage:**
  - N/A

- **Disposal Unit Boundary Acreage:**
  - 117 acres

- **Daily Disposal Limit:**
  - N/A

- **Hours of Operation:**
  - N/A

#### Types of Wastes to be Accepted

- **Agricultural Waste**
- **Animal Carcasses**
- **Asbestos, friable**
- **Asbestos, non-friable**
- **Ash, non CCB/FFCP**
- **Commercial Waste**
- **Construction Waste**
- **Debris Waste**
- **Demolition Waste**
- **Disposal Unit Boundary Acreage:**
- **Domestic Waste**
- **Fossil Fuel Combustion Products**
- **Household Waste**
- **Industrial Waste**
- **Institutional Waste**
- **Landfill Mining**
- **Municipal Solid Waste**
- **Multipurpose Waste**

**Does this facility use or propose to use alternate cover materials? (Yes or No)**

- **No**

**If yes list material(s):**

#### Solid Waste Management Activities

- **Convenience Center**
- **Tire Processing** (Chipping, Shredding, etc.)
- **Mulching**
- **Material Salvage**
- **Opening Burning**
- **Other Special Wastes**
- **Please List:**

- **Surface Impoundment**
- **Vegetative Waste**
- **White Goods**
- **Waste Tires**
- **Waste, POTW**

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**DEQ Form SW PTB**

Revised March 4, 2011

1
## Liner Design (check all that apply)

<table>
<thead>
<tr>
<th>Sanitary Landfill</th>
<th>CDD or Industrial Landfills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtitle D Liner (9VAC20-81-130.J.1.a)</td>
<td>Compacted Clay (9VAC20-81-130.J.2.a)</td>
</tr>
<tr>
<td>Pre-approved Alternate (9VAC20-81-130.J.1.b)</td>
<td>Synthetic Liner (9VAC20-81-130.J.2.b)</td>
</tr>
<tr>
<td>Additional Alternate (9VAC20-81-130.J.1.c)</td>
<td>Alternate Liner (9VAC20-81-130.J.2.c)</td>
</tr>
</tbody>
</table>

## Final Cover Design (check all that apply)

<table>
<thead>
<tr>
<th>Standard Final Cover (9VAC20-81-160.D.2.c)</th>
<th>Leachate Management (check all that apply)</th>
</tr>
</thead>
</table>
| Pre-approved Alternate (9VAC20-81-160.D.2.d) | Leachate Recirculation  
| Pre-approved Alternate (9VAC20-81-160.D.2.e) | Discharged directly to WWTP |
| Additional Alternate (9VAC20-81-160.D.2.f) | Treated onsite and discharged |

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Stamp Professional Engineer in space provided: According to the best of my knowledge, experience, and belief, the selected landfill liner and final cover designs are, in my professional opinion, suitable for the above described facility based on site specific conditions and engineering principles. The designs proposed in the following Attachments are in compliance with Virginia's laws, codes, and ordinances.

**Donald J. Spaeder**  
Lic. No. 048710

**Does this application include a Research, Development and Demonstration Plan? (Yes or No)**  
No

If yes:  
- The addition of liquids in addition to leachate and gas condensate from the same landfill for accelerated decomposition of the waste mass.
- Allowing run-on water to flow into the landfill waste mass.
- Allowing testing of the construction and infiltration performance or alternative final cover systems.
- Other measures to be taken to enhance stabilization of the waste mass.

**Does this application include a variance request(s) to regulatory requirements? (Yes or No)**  
No

If yes:

Footnotes:

1. These waste types require additional information, which should be included in Attachment XIII to receive approval.
2. Alternate liner demonstration must be included in Attachment XIV.
3. Laboratory test results documenting permeability of in-place soil must be included in Attachment XV.
4. Witness zone monitoring program must be included on the Site Monitoring Plan in Attachment III.
5. Alternate final cover demonstration must be included in Attachment XVI.
6. To receive approval for recirculation the irrigated area must be a Sanitary Landfill and underlain by a composite liner or a Research, Development, or Demonstration Plan must be included in Attachment XVII.
7. To receive approval for discharge of leachate to surface water an approved VPDES permit must be included in Attachment VIII.
8. A description of the proposed method must be included in Attachment VIII.
9. Only Sanitary landfills with a liner in accordance with 9VAC20-81-130.J.1 are eligible to submit RDD plans.

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DEQ Form SW PTB  
Revised March 4, 2011
Attachments. The following attachments must be submitted in the order prescribed

Attachment I: Notice of Intent
Attachment II: VDOT Adequacy Report and Approval Letter (if increasing Daily Disposal Limit)
Attachment III: Design Plans

Attachment IV: Closure Plan
Attachment V: Post Closure Plan
Attachment VI: Design Report

Attachment VII: Construction Quality Assurance (CQA) Plan and Technical Specifications (these are included as Appendices to Attachment IV)
Attachment VIII: Leachate Management Plan
Attachment IX: Landfill Gas Plans

Attachment X: Groundwater Monitoring Plan (to be submitted at a later date)
Attachment XI: Groundwater Corrective Action Plan
Attachment XII: Financial Assurance Documentation
Attachment XIII: Special Waste Documentation
Attachment XIV: Alternate Liner Demonstration
Attachment XV: Laboratory Test Results Documenting Permeability of In-place Soils
Attachment XVI: Alternate Final Cover Demonstration
Attachment XVII: Research, Development, and Demonstration Plan

Responsible Official Signature:

I certify under penalty of law that this document and all attachments 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 the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete.

Name: David A. Craymer
Title: Vice President, Power Generation System Operations

Signature: [Signature]
Date: 1/7/16