

**PERMIT ATTACHMENT I-1**

**PERMIT RELATED APPROVAL LETTERS**



# COMMONWEALTH of VIRGINIA

Molly Joseph Ward  
Secretary of Natural Resources

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2009

[www.deq.virginia.gov](http://www.deq.virginia.gov)

David K. Paylor  
Director

Craig R. Nichol  
Regional Director

ELECTRONIC MAILBOX:  
[TRO.LandProtection@deq.virginia.gov](mailto:TRO.LandProtection@deq.virginia.gov)

January 19, 2017

Ms. Paula A. Hamel  
Director, Generation Environmental Services  
Dominion Generation  
5000 Dominion Blvd.  
Glen Allen, VA 23060

**RE: Yorktown Power Station Industrial Landfill  
Yorktown, Virginia  
Minor Modification, Permit #457**

Dear Ms. Hamel:

The Department of Environmental Quality (Department) Tidewater Regional Office (TRO) has received the revised Groundwater Monitoring Plan (GMP) and permit amendment request, dated February 4, 2015. The GMP was updated to reflect the abandonment of monitoring well 11 and its replacement with monitoring well 11R. In addition, the GMP was revised to include updated Virginia Solid Waste Management Regulations (VSWMR) requirements as well as other editorial changes.

As noted in the Department's April 29, 2016 Closure Plan approval letter, with the incorporation of the EPA's Coal Combustion Residuals (CCR) Rule into the VSWMR, effective January 27, 2016, a permit application satisfying the CCR rule requirements for the existing CCR landfill is due by **October 17, 2017**. Given that the revised GMP, dated February 2005, was submitted prior to the incorporation of the CCR Rule into the VSWMR, the GMP must be revised and submitted with the forthcoming permit modification. As such, the GMP has not undergone technical review and approval concurrent with the monitoring well replacement approval.

In accordance with 9 VAC 20-81-600.F.2.c. of the Virginia Solid Waste Management Regulations (VSWMR, 9 VAC 20-81 *et seq.*), incorporation of replacement monitoring well 11R into Permit No. 457 is a minor modification requiring Director approval. In order to document this modification, please attach a copy of this letter to each copy of Permit No. 457.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate an appeal of this decision, by filing notice with:

David K. Paylor, Director  
Virginia Department of Environmental Quality  
ATTN: Division of Land Protection & Revitalization  
P.O. Box 1105  
Richmond, Virginia 23218

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which an appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

In accordance with 9 VAC 20-81-600.F.2.d., the permittee is required to notify the local governing body of this modification within 90 days of this letter. Mr. Neil Morgan, Yorktown County Administrator is copied on this letter via email message at [neil.morgan@yorkcounty.gov](mailto:neil.morgan@yorkcounty.gov) to satisfy this requirement.

Please note that it is the responsibility of Dominion to obtain any other permits or authorizations that may be necessary. If there are any questions, please contact Rachel Patton, Groundwater Remediation Specialist, at (757) 518-2145 or [rachel.patton@deq.virginia.gov](mailto:rachel.patton@deq.virginia.gov).

Sincerely,



Janet F. Weyland  
Deputy Regional Director

cc: Melinda Woodruff, Regional Land Protection Manager, DEQ-TRO  
Debra Trent, Compliance Inspector, DEQ-TRO  
Geoff Christe, Groundwater Program Coordinator, DEQ – CO  
Kathryn Perszyk, Solid Waste Permit Coordinator, DEQ – CO  
Rachel Patton, Groundwater Remediation Specialist, DEQ-TRO



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462  
(757) 518-2000 Fax (757) 518-2009  
www.deq.virginia.gov

Molly Joseph Ward  
Secretary of Natural Resources

David K. Paylor  
Director

Maria R. Nold  
Regional Director

April 29, 2016

Paula Hamel  
Director, Generation and Electric Services  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, VA 23060

**RE: Final Approval of Revised Closure Plan  
Yorktown Power Station, Permit #457  
Yorktown, Virginia**

Dear Ms. Taylor:

The Yorktown Power Station, Yorktown, Virginia – Closure Plan, dated November 2015, has been reviewed by the Department for consistency with the requirements of Virginia Solid Waste Management Regulations (VSWMR, 9 VAC 20-81-10, *et seq.*). The Closure Plan is submitted in accordance with 9 VAC 20-81-160.B.3 of the VSWMR and addresses the pending final closure of the Yorktown Power Station Industrial Waste Landfill, Permit No. 457. The closure documentation that has been provided to the Department consists of the information that was prepared for the facility by Golder Associates.

The Closure Plan and supporting documentation submitted includes the following elements:

1. A Closure Plan that describes the closure activities dated November 2015.
2. Closure Design Plans
3. Revised Stormwater Calculations
4. Soil Loss Calculations

5. Post-Closure Plan that describes post-closure activities dated November 2015
6. Post Closure Inspection Plan
7. Post-Closure Cost Estimate

Other relative documents currently in the permit include:

8. Technical Specifications (Permit Attachment VA-3)
9. A Construction Quality Assurance (CQA) Plan (Permit Attachment VA-4)
10. An Erosion and Sediment Control Plan (Permit Attachment VA-5)

The final cover specified in the closure plan consists of (from top to bottom):

- 6-inch cover soil/vegetative support layer
- 18-inch protective cover/erosion control layer
- 250-mil double sided drainage geocomposite
- 40-mil LLDPE geomembrane
- Prepared CCR sub-grade

This final cover is an alternative final cover system in accordance with 40 CFR 257.102(d)(3)(ii)(A) through (C). The permittee shall obtain written certification from a professional engineer in accordance with 40 CFR 257.102(d)(3)(iii) and maintain such certification with the Closure Plan.

The Closure Plan and supporting documentation have been determined to be consistent with the requirements of VSWMR. In accordance with 9 VAC 20-81-600.F.2.c. of the VSWMR, incorporation of these plans into Permit No. 457 is a minor modification requiring director approval. The revised Closure Plan replaces the current plan and is incorporated into the permit as Attachment XII/XIII-1. This approval is subject to the following conditions:

1. The Department (Tidewater Regional Office) shall be notified prior to the beginning of final closure activities for any portion of the landfill.
2. Construction quality assurance documentation for the closure should be directed to the Department's Tidewater Regional Office.
3. The facility shall maintain the minimum amounts for closure and post-closure as determined in the current cost estimates provided in Attachment 8 of the Closure Plan (\$8,623,269 for closure) and Attachment 2 of the Post-Closure Plan (\$\$6,281,794 for Post-closure).

Please note that while this modification does not incorporate specific requirements from the Federal CCR Rule (Subpart D of 40 CFR 257) into SWP457, that doesn't preclude the facility from abiding by applicable CCR requirements by the deadlines specified in the CCR

Ms. Hamel  
Yorktown Power Station – PN 457  
Closure Plan Approval  
Page 3 of 4

rule. With the incorporation of the CCR Rule into the VSWMR effective January 27, 2016, a permit application satisfying the CCR rule requirements for the existing CCR landfill is due by **October 17, 2017**. The permit application shall include all items outlined under 9 VAC 20-81-810.A which identifies the specific CCR rule items that must be submitted.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate an appeal of this decision, by filing notice with:

David K. Paylor, Director  
Virginia Department of Environmental Quality  
ATTN: Division of Land Protection & Revitalization  
P.O. Box 1105  
Richmond, Virginia 23218

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which an appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

In accordance with 9 VAC 20-81-600.F.2.d., the permittee is required to notify the local governing body of this modification within 90 days of this letter. Mr. Neil Morgan, Yorktown County Administrator is copied on this letter via email message at [neil.morgan@yorkcounty.gov](mailto:neil.morgan@yorkcounty.gov) to satisfy this requirement.

Please note that it is the responsibility of Dominion to obtain any other permits or authorizations that may be necessary. If you have any questions, please contact Don Brunson at 804-698-4239 or [donald.brunson@deq.virginia.gov](mailto:donald.brunson@deq.virginia.gov).

Sincerely,



Regional Director

cc: Neil Morgan, York County Administrator  
County Administration Building  
P.O. Box 532  
Yorktown, Virginia 23690

Ms. Hamel  
Yorktown Power Station – PN 457  
Closure Plan Approval  
Page 4 of 4

Daniel McGrath, P.E.,  
Golder Associates  
2108 W. Laburnam Avenue  
Suite 200  
Richmond, VA 23227

Melinda Woodruff, Land Protection Manager, DEQ, TRO  
Don Brunson, DEQ, TRO

**McGrath, Daniel**

---

**From:** Ronald.Birckhead@dom.com  
**sent:** Wednesday, October 10, 2007 7:50 AM  
**To:** McGrath, Daniel  
**Cc:** Alice.G.Corey@dom.com; Robert.M.Bisha@dom.com; Bruce.Easley@dom.com;  
Bob.Jackson@dom.com  
**Subject:** YPS - VE - Part B

You might want to include the Karim email on the Part A in the Part B for clarification. We included some emails in the Part A for SWVA project.

Ron Birckhead  
Dominion Electric Environmental Services  
Phone: 804-273-2992  
Pager: 6693  
----- Forwarded by Ronald Birckhead/IN/FH/VANCPower on 10/10/2007 07:45 AM  
-----

Ronald  
Birckhead/IN/FH/V  
ANCPower

06/19/2007 02:25  
PM

dmcgrath@golder.com, Michael  
Lott/IN/FH/VANCPower, Stu  
Gitchee/PP/FH/VANCPower, Bruce  
Easley/YT/FH/VANCPower

To

cc

Robert M  
Bisha/IN/FH/VANCPower@VANCPower,  
Alice G  
Corey/IN/FH/VANCPower@VANCPower

Subject

Fw: Yorktown Power Station -  
Landfill -, Vertical Expansion -  
Part A - Good News

I just talked to Milt Johnston of the DEQ. He indicated that they are going to follow the guidance provided by Karim in the email below on Part A.

Ron Birckhead  
Dominion Electric Environmental Services  
Phone: 804-273-2992  
Pager: 6693  
----- Forwarded by Ronald Birckhead/IN/FH/VANCPower on 06/19/2007 02:19 PM  
-----

Ronald  
Birckhead/IN/FH/V  
ANCPower

05/30/2007 07:18  
AM

"Brunson, Donald"  
<dhbrunson@deq.virginia.gov>

To

cc

"Johnston, Milton"  
<mljohnston@deq.virginia.gov>,  
Robert M

Bisha/IN/FH/VANCPower@VANCPower,  
Alice G  
Corey/IN/FH/VANCPower@VANCPower,  
Bruce  
Easley/YT/FH/VANCPower@VANCPower,  
Stu  
Gitchell/PE/FH/VANCPower@VANCPower,  
dmcgrath@golder.com

Subject

RE: Yorktown Power Station -  
Landfill - Vertical Expansion  
(Document link: Ronald Birckhead)

You received the following from Karim sometime last year indicating that a part A is not required or is rolled into the Part B. Also, any word on the 6 inches versus 12 inches of interim cover. We have a meeting on Thursday to discuss going forward. Thanks

Don,

For a captive industrial landfill vertical expansion keeping the same waste management unit boundary triggers the following sections of VSWMRs based on the activity "increase in capacity":

1. 9 VAC 20-80-500.B.1 - A letter of Notice of Intent (NOI).
2. 9 VAC 20-80-500.B.9 and 9 VAC 20-80-500.B.9.a - Demonstration of Need
3. 9 VAC 20-80-510.I - Notification to adjacent property owners/occupants
4. 9 VAC 20-80-510.J - Consistency with the local solid waste management plan

The first 2 items are the part of NOI that can be addressed both in Part A and Part B applications. The last item is a kind of duplicate with 9 VAC 20-80-500.B.9.a(8) that can well be handled during Part B application (coordinating with Dan in regards to additional capacity, site life, daily average and maximum disposal limits). Therefore only item 3 is the Part A issue. As a result, it is better to address those issues during Part B application and no Part A application is necessary. I know that BFI Old Dominion Landfill is increasing capacity by change side slopes from 4:1 to 3:1 with only Part B application. Anyway, I am copying this email to Howard and Paul for further clarification, in case they feel otherwise.

Please let me know if you have further questions.

Thanks,

\*\*\*\*\*  
Dr. M. A. Karim, P.E.  
Environmental Engineer Senior  
Central Office  
Virginia Department of Environmental Quality  
629 E. Main Street, Richmond, Virginia 23219.  
Phone: (804) 698-4196; Fax: (804) 698-4327;  
1-800-592-5482; Email: makarim@deq.virginia.gov

-----Original Message-----

From: Brunson, Donald  
Sent: Monday, July 17, 2006 1:25 PM  
To: Karim, Mohammed

Subject: Hoops to Jump Through for Vertical Expansion of Captive Industrial Landfill

"Brunson, Donald"  
<dhbrunson@deq.virginia.gov>

05/29/2007 12:29 PM

<Ronald.Birckhead@dom.com>

"Johnston, Milton"  
<mjohnston@deq.virginia.gov>

RE: Yorktown Power Station - Landfill - Vertical Expansion

To

cc

Subject

Ron:

I don't think we have established that there will not be a need for a Part A under the permit amendment for vertical expansion senareo. There would be no Part A (or Part B either) under the HB 1911 senero because that is an expansion that is allowed without a permit amendment.

I believe the amend to expand has some Part A requirements that will have to be met. I would suggest you give Karim a call to discuss.

Thanks

Don B

-----Original Message-----

From: Ronald.Birckhead@dom.com [mailto:Ronald.Birckhead@dom.com]

Sent: Thursday, May 24, 2007 3:35 PM

To: Brunson, Donald

Cc: Robert.M.Bisha@dom.com; Alice.G.Corey@dom.com; Stu.Gitchell@dom.com;

Michael.Lott@dom.com; Bruce.Easley@dom.com; David.Bristow@dom.com

Subject: Yorktown Power Station - Landfill - Vertical Expansion

Don,

Since the compliant vertical expansion at Yorktown PS is full speed ahead, I have a couple of other questions. Normally, the local government ordinance certification and proof of inclusion in the applicable solid waste management plan are submitted with the Part A. We have previously established that a Part A is not required. Do these documents have to be submitted ( I can always hope). If yes, at what point in the process do they need to be submitted? Do you have a good contact at SEPSA for the solid waste management plan?

I enjoyed the video. That is going to be my next job alright.

Thanks,

Ron Birckhead  
Dominion Electric Environmental Services  
Phone: 804-273-2992  
Pager: 6693

-----  
CONFIDENTIALITY NOTICE: This electronic message contains information which may be legally confidential and/or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.

**McGrath, Daniel**

---

**From:** Ronald.Birckhead@dom.com  
**Sent:** Wednesday, October 10, 2007 8:20 AM  
**To:** McGrath, Daniel  
**Cc:** Alice.G.Corey@dom.com; Robert.M.Bisha@dom.com; Bruce.Easley@dom.com  
**Subject:** YPS - Part B - Another Email

Here is another email that we may want to include in the Part B as it talks of the parallel processing.

Ron Birckhead  
Dominion Electric Environmental Services  
Phone: 804-273-2992  
Pager: 6693

----- Forwarded by Ronald Birckhead/IN/FH/VANCPower on 10/10/2007 08:08 AM -----

Ronald  
Birckhead/IN/FH/V  
ANCPower

04/19/2007 09:20  
AM

mljohnston@deq.virginia.gov

To

cc

Subject  
Yorktown Power Station - Landfill -  
April 17 Meeting

Milt,

Thank you for meeting with us Tuesday to discuss ash management at the Yorktown Power Station landfill. I have prepared the following notes on the meeting. Please let me know if you see any inaccuracies.

**Variations**

Four variations were discussed in relation to being able to increase the elevation of the landfill without being compliant to the existing solid waste reg. A variance would not be needed for the liner as the reg includes language that allows alternate designs. A variance would not be needed for the 7 day storage of leachate provided HRSD would certify the availability of the storage within its system. The DEQ would not consider a variance to the 12 inches of head restriction. However, the DEQ would entertain operational/engineering controls that would limit the head to no more than 12 inches as required by the reg. A variance would be required for the bottom slope being less than 2%. Approval of any increase in elevation would have to be approved by York County before the variance could be approved. However, the agency will not consider any variance until the arsenic issue is resolved.

The DEQ has a new procedure for granting variations. The regional office makes a recommendation to HQ and HQ makes the final decision. The granting of a variance will take about 90 days.

Building on the existing landfill in compliance with the regs  
A new landfill could be built on the existing landfill in compliance with

the existing regs without regard to the arsenic. The DEQ would require approval by York County prior to issuance of a permit. However, the DEQ is receptive to "parallel processing" of a permit amendment, knowing that we are seeking approval from the County. The permit could include provisions allowing ash to be mined from both the "new" cells and "existing" cells. And ash could be returned to both the "new" cells and the "existing" cells.

Using ash to get the proper slope.

The slope of the top of the existing cells is approximately 1%. If new cells are to be built to be compliant with the existing regs, ash could be placed on top of the landfill above the 60 ft. elevation to obtain the desired slope for the bottom of the new cells. This could be done as an utilization exemption under the solid waste reg.

Adding ash to cells 7, 8, and 9.

Ash can be added to cells 7, 8, and 9 to fill them to the design elevation provided a notification is submitted to the DEQ. The notification needs to describe how areas of exposed ash will be minimized and a schedule.

Cell 12

Cell 12 can be constructed in accordance with the original design.

Again, thanks for your help.

Ron Bircckhead  
Dominion Electric Environmental Services  
Phone: 804-273-2992  
Pager: 6693

-----  
**CONFIDENTIALITY NOTICE:** This electronic message contains information which may be legally confidential and/or privileged and does not in any case represent a firm ENERGY COMMODITY bid or offer relating thereto which binds the sender without an additional express written confirmation to that effect. The information is intended solely for the individual or entity named above and access by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution, or use of the contents of this information is prohibited and may be unlawful. If you have received this electronic transmission in error, please reply immediately to the sender that you have received the message in error, and delete it. Thank you.



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Dennis H. Treacy  
Director

James S. Gilmore, III  
Governor

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 10009, Richmond, Virginia 23240

Fax (804) 698-4500 TDD (804) 698-4021

<http://www.deq.state.va.us>

(804) 698-4000  
1-800-592-5482

John Paul Woodley, Jr.  
Secretary of Natural Resources

### SOLID WASTE FACILITY PERMIT PERMIT NUMBER 457

**Facility Name:** Virginia Power - Yorktown Power Station

**Facility Type:** Industrial Waste Landfill (Ash Structural Fill) **Latitude:** 37°11'41"

**Site Location:** York County **Longitude:** 76°27'09"

**Location Description:** The facility is located approximately 4.5 miles southeast of Yorktown, on State Route 630, approximately 3/4 mile north of the intersection of State Route 630 and State Route 173, in York County, Virginia. The landfill is situated approximately two miles south of the power plant.

**Background:** The facility is a captive industrial waste landfill (ash structural fill). Since the early 1980s, the Yorktown Power Station has operated the landfill for the disposal of fly ash, bottom ash, pyrites, and limestone injection multi-stage burner ash (otherwise know as LIMB ash). The CCB disposal facility is operated by a contractor. The power station generates approximately 76,000 cubic yards of fly ash and approximately 19,000 cubic yards of bottom ash (including pyrites) annually. The ultimate design capacity for CCB at the facility is estimated to be approximately 1.6 million cubic yards. The currently permitted Yorktown CCB facility site boundary encompasses approximately 106-acres, of which approximately 48-acres are permitted for CCB placement. The approximate 48-acre waste disposal footprint is divided into 12 development cells that are developed in seven phases as indicated by the permit drawings. The current operations are illustrated by Phases 1 through 4, and the progression of reclamation from cells 6,1,2, and 3. Phases 5 through 7 illustrate reclamation of CCB from Cells 7 through 12. Reclamation of CCB will follow the reclamation schedule found in Table 2-3 of the operation plan, Permit Attachment II-1. As of January 2001, Cells 1 through 4 have been filled and capped and Cells 5 and 6 are open and active, while Cells 7 through 12 are not yet developed. All of the cells are lined with a six-inch layer of clay soil with a permeability of  $1 \times 10^{-4}$  cm/sec. The leachate collection system consists of a 2-foot bottom ash drainage blanket over the clay liner, with six-inch diameter vinyl pipe(s) installed down the center of the facility adjacent to and on either side the access road down the center of the landfill. The pipe(s) route to a 6,000-gallon underground fiberglass tank. Periodically, or as otherwise required, the leachate in the tank is pumped and hauled to the Power Station's Metal Cleaning Wastes Pond. Most of the precipitation falling on the landfill runs off of the surface prior to infiltrating the fill. This runoff, along with site stormwater, is conveyed to sedimentation ponds located along the eastern border of the landfill. These ponds are

operated under a Virginia Pollutant Discharge Elimination System (VPDES) permit (Permit No. VA0004103) issued by the Virginia Department of Environmental Quality, and discharge into a natural stream. CCB will be transported from the silos and hydro-bins at the power station to the active face of the landfill via facility access road all located on plant property. The facility-operating plan ensures placement and compaction of the CCB to maintain stability and drainage and to minimize dust generation and truck access problems.

**Permit Amendment:** In association with Dominion Virginia Power's desire to market the contents of the landfill for beneficial reuse projects, this permit is being amended to allow the Yorktown Power Station to incorporate landfill reclamation into their operation plan. These activities are to be conducted in a manner that minimizes the active area of CCB placement and reclamation. A pug-mill operation will be located in Cell 5. The pug mill will be used to add lime or cement binder to the ash as required for specific beneficial use projects. CCB may be stockpiled in Cell 5 for processing as long as it is not being accumulated speculatively. In addition, one other cell may be in use, depending on the beneficial use rate and the CCB production at the plant. No more than one and a one-half active cells may be in use at any given time. Ash reclamation will begin in Cell 6. Note that Cells 4 and 5 contain large quantities of LIMB ash that make ash reutilization difficult and may not be used. Therefore, Cells 4 and 5 would be the last Cells reclaimed if at all, and would only be partially reclaimed until the upper boundary of previously disposed LIMB ash is reached. The sequence of ash removal can be found in Table 2-3, titled "Reclamation of Cells 1-12" of the Operations Manual (see Permit Attachment II-1) which is also contained in the Closure Plan as Table 1-3 (see Module XII). The sequence is illustrated also on the design drawings (see Permit Attachment V-1A). When reclamation in each cell is completed, a minimum of 4 feet of ash will remain above the cell's liner system for protection. At this point, an intermediate 12-inch soil cover will be constructed in conjunction with the opening of the next sequential cell. When it is determined that the remaining life of the power station equals the remaining life of the entire disposal facility, all cells will be filled to final closure grades. Additional marketing of ash for beneficial reuse may be required to balance the anticipated life of the power station with the life of the landfill. The final closure of each cell will be completed within six months after receiving the final lift of waste. Records of all ash placed and/or removed from the site are maintained by Virginia Power. Documentation of QA/QC activities conducted during site stabilization for final closure will be maintained and submitted to DEQ with final closure certification documents.

**Permit Highlights:** This permit amends the existing permit which was issued January 11, 1985. This permit includes permit modules and associated permit attachments, which are, in general, based on information submitted in the permit amendment application. The reclamation drawings are contained in permit Attachment V-1A. The original design drawings are contained in permit Attachment V-1B. The Operations Plan is contained in Permit Attachment II-1. The Closure and Post-Closure Plan is contained in Permit Modules XII and XIII.

**THIS IS TO CERTIFY THAT:**

Virginia Power  
Yorktown Power Station  
1600 Waterview Road  
Yorktown, Virginia 23692

is hereby granted a permit to construct, operate, and maintain the facility as described in the attached Permit Modules I, II, V, X, XII, and XIII, and the associated permit attachments. Note that Permit Module X, Groundwater Monitoring incorporates by reference the existing facility groundwater-monitoring plan contained in the facility operating record. These Permit Modules and associated Permit Attachments are as referenced hereinafter and are incorporated into and become a part of this permit.

The herein described activity is to be established, modified, constructed, installed, operated, used, maintained, and closed in accordance with the terms and conditions of this permit and the plans, specifications, and reports submitted and cited in the permit. The facility shall comply with all regulations of the Virginia Waste Management Board. Prior to issuing this permit, any comments by the local government and general public have been investigated and evaluated and it has been determined that the proposed facility poses no substantial present or potential danger to human health or the environment. The permit contains such conditions and requirements as are deemed necessary to comply with the requirements of the Virginia Code, the regulations of the Board, and to prevent substantial or present danger to human health or the environment.

Failure to comply with the terms and conditions of this permit shall constitute grounds for the revocation or suspension of this permit and for the initiation of necessary enforcement actions.

The permit is issued in accordance with the provisions of § 10.1-1408.1.A, Chapter 14, Title 10.1, Code of Virginia (1950) as amended.

Issued: January 11, 1985

**APPROVED:**

*Dennis H. Treacy*  
Dennis H. Treacy  
Director

DATE: October 22, 2001  
Amended

# PERMIT MODULES AND PERMIT ATTACHMENTS<sup>1</sup>

## REFERENCE LIST

- PERMIT MODULE I -- GENERAL PERMIT CONDITIONS
  - PERMIT MODULE II<sup>2</sup> -- OPERATIONS
  - PERMIT ATTACHMENT II-1 -- OPERATIONS MANUAL
  - PERMIT ATTACHMENT II-2 -- EMERGENCY/CONTINGENCY PLAN
  - PERMIT MODULE V -- DESIGN AND CONSTRUCTION
  - PERMIT ATTACHMENT V-1A -- RECLAMATION DRAWINGS
  - PERMIT ATTACHMENT V-1B -- ORIGINAL DESIGN DRAWINGS
  - PERMIT ATTACHMENT V-2 -- SPECIFICATIONS
  - PERMIT ATTACHMENT V-3 -- QUALITY ASSURANCE AND QUALITY CONTROL
  - PERMIT MODULE X -- PHASE I GROUNDWATER MONITORING
  - PERMIT MODULE XI -- PHASE II GROUNDWATER MONITORING
  - PERMIT MODULES XII AND XIII<sup>2</sup> -- CLOSURE AND POST-CLOSURE CARE
- 

### NOTES:

1. Should information contained in any permit module that consists of documents submitted by the permittee, conflict with the any requirement or condition contained in the permit modules, or the 9 VAC 20-80-10 *et seq.*, Amendment 2, the regulatory/permit module requirement or condition shall prevail (unless an appropriate variance has been granted). The Department is not responsible for spelling, typographical, or syntax errors in modules based on information submitted by the permittee.
2. The Emergency/Contingency Plan (Permit Attachment II-2), or the Closure and Post-Closure Plan (Permit Module XII and XIII), may be revised with Department approval.



**BOARD OF SUPERVISORS  
COUNTY OF YORK  
YORKTOWN, VIRGINIA**

Resolution

At a regular meeting of the York County Board of Supervisors held in York Hall, Yorktown, Virginia, on the 15th day of April, 2008:

---

Present

Thomas G. Shepperd, Jr., Chairman

Walter C. Zaremba, Vice Chairman

Sheila S. Noll

Donald E. Wiggins

George S. Hrichak

---

On motion of \_\_\_\_\_, which carried 4 to 1, the following resolution was adopted:

A RESOLUTION TO APPROVE AN APPLICATION TO AMEND RESOLUTION NO. R82-221(R-2), AS AMENDED BY RESOLUTION NOS. R92-191(R), R92-292, R93-251, R99-69(R), AND R02-70, TO AUTHORIZE VERTICAL EXPANSION OF A PREVIOUSLY APPROVED ASH DISPOSAL FACILITY ON A 73.7-ACRE PARCEL LOCATED AT 380 NEWSOME DRIVE

WHEREAS, Dominion Virginia Power has submitted Application No. UP-739-08 to amend Resolution No. R82-221(R-2), as amended by Resolution Nos. R92-191(R), R92-292, R93-251, R99-69(R), and R02-70, to authorize vertical expansion of a previously approved ash disposal facility on a 73.7-acre parcel located at 380 Newsome Drive and further identified as Assessor's Parcel No. 24-204C; and

WHEREAS, said application has been referred to the York County Planning Commission; and

WHEREAS, the Planning Commission recommends approval of this application; and

WHEREAS, the York County Board of Supervisors has conducted a duly advertised public hearing in accordance with applicable procedure; and

WHEREAS, the Board has carefully considered the comments of the public and Planning Commission recommendation with respect to this application;

NOW, THEREFORE, BE IT RESOLVED by the York County Board of Supervisors this the 15th day of April, 2008, that Application No. UP-739-08 be, and it is hereby, approved to amend the following sections and conditions of Resolution No. R82-221(R), as amended by Resolution Nos. R92-191(R), R92-292, R93-251, R99-69(R), and R02-70, to read and provide as follows:

SUPPORTIVE DOCUMENTATION: 82-UP1

Date Received

August 26, 1981 Yorktown Power Station: Coal Handling System, Veeco, August 1981

September 14, 1981 Yorktown Power Station: Ash Handling System, Veeco, September 1981

November 6, 1981 Assessment of Hydrogeologic Conditions at the Proposed Virginia Electric and Power Company Ash Structural Fill, Geraghty & Miller, Inc., Annapolis, Maryland, October 1981

November 25, 1981 Comparison of Above Ground and Below Ground Ash Structural Fills, Veeco, November 20, 1981

December 1, 1981 Design Report: Ash Structural Fill Area, Yorktown Station, Goodwin Neck, York County, Virginia, GAI Consultants, Inc., Monroeville, Pennsylvania, November 1981

December 1, 1981 Engineering Drawings, Fly Ash Structural Fill and Haul Road, Yorktown Generating Station, Virginia Electric and Power Company, Richmond, Virginia, Prepared by GAI Consultants, Inc., Monroeville, Pennsylvania, Drawings 81-295-E2 through E-10, E-12, and E-28 as follows:

Drawing	Revision	
#81-295	Date	Title
E2	11/25/81	Title Sheet
E3	1/6/82	General Arrangement and Grading Plan
E4	8/18/82	Ash Development Plan-Cell No. 1
E5	1/6/82	Ash Development Plan-Cell Nos. 2 through 7
E6	1/6/82	Ultimate Development Plan
E7	8/18/82	Ash Development Sections and Details
E28	Undated	Haul Road Plan and Profile

Rec'd 10/27/82

E8	10/8/82	Haul Road Plan and Profile
E9	10/8/82	Haul Road Plan and Profile

E10            10/8/82        Haul Road Details  
 E12            12/10/81      Typical Sections A-A and B-B

December 1, 1981 Yorktown Power Station Site Plan, Vepco Engineering Department, Mapped by Photo Science, Inc., Gaithersburg, Maryland, PSI Job No. 3467, Drawing Nos. SE79-641-V1 and V2 as follows:

<u>Drawing Number</u>	<u>Revision Date</u>	<u>Title</u>
SE79-641-V1	10/22/81	Yorktown Power Station Site Plan
SE79-641-V2	10/22/81	Yorktown Power Station Site Plan

December 1, 1981 Survey of (2) Parcels of Land Containing 181.67 Ac. Situated on East Line of State Route 634 (Old Hampton York Road) Grafton District, York County, Virginia, 7/15/80, Moore, Hardee and Carrouth Associates, Richmond, Virginia

December 1, 1981 Compiled Plat, Yorktown Power Station, York, Virginia, 6/74, Stone & Webster Engineering Corporation, Sheet No. J, O, 12042, 68D

January 5, 1982 Proposed Plan for the Ultimate Land Use of the Ash Structural Fill Site, County of York, Virginia, Vepco and GAI Consultants, Inc., Monroeville, Pennsylvania, December 1981

March 23, 1982 Responses to Questions Concerning Ash Utilization Contained in York County's Letter to Vepco dated March 4, 1982, undated report received March 23, 1982

April 6, 1982 Assessment of the Effect of the Virginia Electric and Power Company Proposed Ash Structural Fill on Ground Water in York County, Virginia, Geraghty and Miller, Inc., Annapolis, Maryland, March 1982

May 21, 1982 Technical Information in Response to Requests from April 23, 1982 Meeting Dated May 21, 1982, Vepco, as supplemented by letter report from L. K. Newsome dated 6/22/82

May 27, 1982 Yorktown Power Station Coal Conversion: Ambient Air Quality Study, Environmental Services Department, Vepco, May 1982, as supplemented by letter report from L. K. Newsome dated 6/22/82

June 28, 1982 Yorktown Refinery Map (undated) prepared by L.K. Newsome and H. Bohannon containing proposed "Alternative A": Fly Ash Haul Route

July 23, 1982 Yorktown Coal Conversion Conditional Use Permit Suggested Changes, Vepco Staff, July 23, 1982

September 14, 1982 Coal Pile Drainage Impact at the Vepco Yorktown Station, F24-V01-002, Dennis W. Weeter, Ph.D., P.E., Louisville, Tennessee, September 13, 1982.

Received February 1, 2008

December 14, 2007, Permit Drawings – Dominion Yorktown Power Station Industrial Solid Waste Landfill Vertical Expansion (VE) Major Permit Amendment by Golder Associates Inc., Drawings 1 through 23 titled as follows:

Drawing Number	Title
1.	Title Sheet
2.	Existing Conditions
3.	Base Landfill Vertical Design Capacity
4.	VE Perimeter Berm Grading
5.	VE Beneficial Reuse Grades
6.	VE Base Grades
7.	VE Engineering Modification Grades
8.	VE Final Cover Grades and Section Locations
9.	Landfill Cross Sections AA' – DD'
10.	Landfill Cross Sections EE' – GG'
11.	VE Phasing Plan
12.	Leachate Collection System Plan
13.	Base Landfill Reclamation Grades
14.	VE Reclamation Grades
15.	Liner Details
16.	Final Cover Details
17.	Leachate Collection System Details Sheet 1 of 4
18.	Leachate Collection System Details Sheet 2 of 4
19.	Leachate Collection System Details Sheet 3 of 4
20.	Leachate Collection System Details Sheet 4 of 4
21.	Stormwater Control / E&S Control Plan
22.	Stormwater / E&S Details
23.	Erosion & Sediment Control Narrative and Notes

April 1, 2008 Yorktown Power Station Ash Fill Screening Drawing 1

BE IT STILL FURTHER RESOLVED that such use permit be granted for the storage, handling, and transport of coal and the storage, handling, transport and/or disposal of fly ash, bottom ash and other particulate byproducts associated with the burning of such coal, at Veeco's Yorktown Units 1 and 2, subject to the following conditions, to wit:

A. Ash Handling and Placement

- A1. Since the control of fugitive dust and emissions from other than hermetically sealed transport vehicles is dependent on the moisture content of the ash as it is loaded and transported, no ash shall be loaded or transported if its moisture content is below ten percent (10%) or above thirty-five percent (35%). If hermetically sealed vehicles are used to transport ash off site for marketing purposes, the moisture contents mentioned herein shall not apply.

- A2. Moisture content of the ash as loaded in the vehicle shall be supplied and controlled by automatic equipment approved by the County of York. The loading operator shall be responsible for visual inspection of the material during loading operations to ensure that the ash is at or near optimum moisture content as it is being loaded into the vehicle. The loading operator shall also be responsible for ensuring that the spray curtain, automatic dust control air system and garage doors are functioning as designed and intended.
- A3. Veeco shall ensure that the drum utilized to mix the fly ash with water to provide a controlled moisture content will be adequate to meet the needs of the power plant at its maximum generating capacity.
- A4. Periodic tests shall be conducted on the fly ash as it is mixed with water in the loading silo to ensure optimum moisture content prior to the loading of ash transport vehicles. This shall be conducted approximately once per hour or as frequently as required to ensure that ash reaches the structural fill in optimum moisture condition. Such tests may include visual inspection by the on-site operator of the ash loading equipment. Laboratory testing of the ash shall be accomplished at least weekly utilizing ASTM Procedure D2216-71.
- A5. The applicant shall ensure at least a minimum of three days storage capability in the silos at full plant operating capacity. Dust control measures shall be implemented in such storage areas to prevent fugitive dust discharges.
- A6. (a) Since the applicant has chosen to propose a series of performance specifications, Veeco shall provide a full time quality control engineering technician, or equivalent trained personnel, who shall be assigned to the testing and monitoring of all ash parameters which will contribute to the proper placement and successful functioning of the ash structural fill as approved by the Board of Supervisors.

The technician shall have available to him at all times a sand cone test apparatus and a nuclear densometer to test for compaction of the ash. Such sand cone test shall be performed in accord with ASTM D1556-64 and shall periodically verify the nuclear densometer apparatus on a test strip utilizing this method. The nuclear densometer shall be used on each lift placed at the fill site and shall be so used at least twice per acre, or part thereof, of fill area.

The technician shall be responsible and shall have the authority to stop or modify the placement of ash as required to ensure the optimum compaction and density of the ash.

(b) Placement of Ash for Beneficial Reuse: When an ash cell is being excavated for beneficial reuse, or when ash is stockpiled temporarily in a cell for purposes of beneficial reuse, the technician shall ensure that the VDEQ (Virginia Department of Environmental Quality) Solid Waste Quality Assurance Plan is followed. The criteria listed above in A6.a for density testing shall not apply to ash stockpiled temporarily for beneficial reuse purposes. (R99-69(R))

- A7. An ash testing program for both fly and bottom ash shall be instituted as proposed in the March 17, 1982 letter from GAI Consultants to Vepco, and shall include more frequent tests as required at such times as any parameter might be expected to change.

Such a testing program shall include but not be limited to:

Test Method	Fly Ash	Bottom Ash
Visual Classification	X	
Moisture Content ASTM D2216-71	X	
Grain Size Distribution ASTM D422-63	X	
Specific Gravity ASTM D854-58	X	
Proctor Density ASTM D698-78	X	
Permeability ASTM D2434-68	X	X
Shear Strength ASTM D3080-72	X	
Resistivity	X	
Leachate Analysis EPA Extraction	X	X

Other field tests shall be conducted as specified herein.

- A8. No fly ash or bottom ash resulting from the combustion of coal shall be stockpiled at the plant except in the silo(s). Temporary stockpiling of the fly ash shall be allowed at the disposal site when necessary to achieve required compaction levels, or at the plant site during periods of emergency repair. Any such emergency repair shall be reported to the County Administrator or his designee and shall be reported pursuant to Condition D2 if that Condition is otherwise applicable.

Ash may be stockpiled temporarily at the disposal site for beneficial reuse. When stockpiling for beneficial reuse, the total ash stockpiled shall not exceed 100,000 tons. (R99-69(R))

- A9. Transport, handling and disposal of fly ash, bottom ash, and other particulate by-products resulting from the combustion of coal shall be conducted only during the daylight hours, Monday through Friday, except when such transport, handling and disposal is required at other times due to any emergency or unusual circumstance. Any such emergency or unusual circumstance shall be reported pursuant to Condition D2 if that Condition is otherwise applicable.
- A10. All areas adjacent to the ash handling silos shall be paved with a permanent dustless surface such as bituminous or portland cement concrete.
- A11. At least two operable water trucks shall be available to the Yorktown Power Station facility, including the ash structural fill, at all times. This will ensure that one water truck is waiting at the plant site in reserve should a malfunction occur with respect to the primary watering vehicle.

- A12. All paved areas used in the ash and/or coal handling and transport operation shall be washed down at least twice per day, and at such other times as conditions warrant, during those days when ash and/or coal are being handled to minimize fugitive dust emissions on those days when sufficient precipitation does not occur.
- A13. The applicant shall be precluded from using public roads for the transport of fly ash, bottom ash or other residues from the plant site to the structural fill except for necessary crossings of secondary roads at an angle at or near ninety degrees. Haul routes for vehicles transporting ash or other material or equipment from the plant site to the disposal site, or hauling soil or other material or equipment from the disposal site to the plant, shall be limited to that route proposed by Vepco to York County in drawings 81-295-E28, E8, E9 and E10 as referenced hereinbefore. This prohibition may be waived by the County Administrator, or his designated deputy, in order to resolve emergencies or other unusual circumstances. Any such emergency or unusual circumstance shall be reported to the County Administrator or his designee and shall be reported pursuant to Condition D2 if that Condition is otherwise applicable.
- A14. All haul routes used in the transport of fly ash, bottom ash, other particulate by-products of the plant or in the transport of coal on the plant site shall be paved with a permanent dustless surface. Such paving and road construction shall be in accordance with the design of the station access road which was approved by the Board of Supervisors through Resolution Nos. R81-154R and R82-59(R) and included in the Drawings SE79-641-T8, Sheets 1-9, prepared for Vepco by D'Appollonia, Inc., Pittsburgh, Pennsylvania.
- A15. All road crossing shall, at a minimum, be designed, constructed and maintained in accordance with the conditions specified by rules and regulations of the Virginia Department of Highways and Transportation.
- A16. Fly and bottom ash shall be transported in accordance with Section 10-1-4 B(2) of the York County Zoning Ordinance.
- A17. All vehicles used to handle, move or otherwise transport ash or other materials associated with the combustion of coal at the station shall be equipped with the best available control technology (BACT) noise suppression muffler systems available for the specific piece of equipment in question at the time the equipment is initially put into service.

The applicant shall furnish to the County a certification from the manufacturer, or his duly authorized representative, that the equipment in service at the Plant, disposal site and between those two points includes an operable noise muffler system which has been designed and installed according to best available control technology at the time the equipment is initially placed into service. Such equipment shall, at a minimum, be maintained to meet such standards contained herein.

- A18. A spray curtain and garage doors shall be included and used at the entrance to and exit from the ash loading silo. At least one of these features must be used whenever ash is being loaded into haul trucks.

- A19. Wash down facilities shall be provided and used, unless prohibited by freezing weather conditions, at both the ash loading silos and at the structural fill to wash any ash from the vehicles prior to any travel between those two points or from those points to any other place.
- A20. Vepco shall provide sufficient equipment to assure the effective handling scarifying and/or blending of fly ash which has been placed at the structural fill in other than an optimum moisture conditions. At a minimum, the following equipment shall be permanently located at the ash structural fill site:
- Vibratory compactor sufficient to provide adequate compaction of the fly ash.
  - Bulldozer/scrapper to spread fly ash.
  - A scarifying device to be used to blend fly ash which has been delivered, or is in place, at other than optimum moisture content.
- A21. A water truck to control fugitive dust and/or to ensure proper moisture content of the ash shall be permanently available to the structural fill.
- A22. When fly ash is placed permanently in a disposal cell, the fly ash shall be placed in layers no more than twelve inches (12"), and immediately compacted to 95 percent of standard Proctor maximum density. When fly ash is stockpiled temporarily for beneficial reuse, it shall be placed in layers no more than twelve inches (12") and immediately compacted. A standard Proctor density analysis of ash stockpiled temporarily for beneficial reuse shall not be required. (R99-69(R))
- A23. When fly ash is permanently placed in a disposal cell, the applicant shall provide quarter annual tests from an independent laboratory which shall be conducted to verify the compaction results obtained by the full time engineering technician or equivalent trained personnel assigned to the project. Such quarter annual tests shall not be required for ash being stockpiled temporarily for beneficial reuse. (R99-69(R))
- A24. The County Administrator, or his designated deputy, shall have the authority to require performance of required tests on random strips at reasonable times.
- A25. Temporary storage of bottom ash, as proposed in Drawing 11 "Vertical Expansion Phasing Plan" dated December 14, 2007 and referenced hereinbefore, shall be strictly adhered to. The Board reserves the right to require, at its discretion, the construction of a permanent bottom ash storage area. Fugitive dust incidents resulting from such temporary storage areas shall result in consideration of a requirement that Vepco design, construct and maintain, a single, permanent, and sheltered bottom ash storage cell. The bottom ash stockpile shall be located over the lined area of the base landfill at all times.
- A26. When the facility or portions thereof reach design capacity, or if the applicant should choose to close the facility prior to reaching design capacity, the applicant shall close the site pursuant to the Closure Plan contained in the site's VDEQ solid waste permit.

- A27. The applicant shall provide a final series of tests by an independent testing laboratory for the fill as a single structural entity including analyses of all engineering parameters dealing with the structural integrity of the ash fill, with particular attention to the interfacing of individual cells. Such tests shall be performed and results submitted to the County Administrator prior to the closure of the entire site. Such test results shall be certified by an independent professional engineering firm. Should Virginia Power choose to remove for beneficial reuse all, or a portion, of the ash deposited on the site in the approved disposal cells, the site, or a portion thereof shall be closed pursuant to the plan for clean closure contained in the ash site's VDEQ solid waste permit requirements. If the ash site is closed pursuant to the VDEQ solid waste permit requirements the series of tests set out hereinabove shall not be required. (R99-69)
- A28. Flue gas desulfurization or other plant sludges shall not be deposited in the ash structural fill.
- A29. All records of tests and inspections shall be recorded and maintained throughout the life of the fill, and transferred to the County upon transfer of the property.
- A30. The County Administrator, or his designated deputy, has authority to enter the plant and structural fill premises and make spot inspections on an unannounced basis.
- A31. Prior to placement of the final soil cover for any cell, Veeco shall notify the County Administrator of its intent to close the specific cell. Such notification shall include an analysis of the amounts and types of materials proposed to be placed on the cell, including vegetation, to ensure compliance with approved plans and specifications. The landfill closure will be performed in accordance with the Closure/Post Closure Plan contained in the VDEQ solid waste permit for the facility.
- A32. Off-site transport of fly ash in non-hermetically sealed vehicles shall be permitted provided that the moisture content and all other applicable requirements specified herein are observed, and provided that non-rail transport routes shall be limited to primary and interstate highways with the exception of that portion of Hornsbyville Road between the haul road and Goodwin Neck Road. (R92-191(R) and R92-292)

Any ash required to have cement addition to meet beneficial reuse requirements shall be handled in the following manner:

1. Pugmilling of ash shall be performed within the boundaries of a fully developed cell. Dust control measures shall be practiced to keep dust to a minimum in the areas of excavation, pugmill operation, and truck loading.
2. All trucks leaving the ash site shall be washed in the truck wash, and wheels manually washed to prevent migration of ash off site.
3. A water truck and water-spray system shall be utilized that ensures that fugitive dust from the pugmill operation will be abated.

4. The pugmill operation will be in open cells only and, with the exception of initial ash removal, operate at the elevation equal to at least three feet above the top of the drainage layer of the cell being excavated, or of the adjacent, empty cell. (R99-69(R))

- A33. Any entrance to or from the ash site to a secondary road in the State system, or, as in the case of Newsome Drive, a road proposed for acceptance into the State secondary system, shall be upgraded to the satisfaction of the Virginia Department of Transportation (VDOT) and York County prior to the commencement of any removal activities utilizing said entrance. In addition, a bond or other acceptable surety shall be posted with the Virginia Department of Transportation (VDOT) in the amount of \$25,000 to cover any road damages as a result of the removal operation. In addition, at no time shall this activity generate more than four hundred (400) vehicle trip ends per day.

Off-site transport of fly ash in non-hermetically sealed vehicles shall be permitted provided that the moisture content and all other applicable requirements specified herein are observed, and provided that non-rail transport routes shall be limited to primary and interstate highways and the following roads:

A) That portion of Hornsbyville Road between the haul road and Goodwin Neck Road (Route 173).

B) That portion of Wolfrap Road between the haul road and Goodwin Neck Road; and

C) That portion of Newsome Drive from its eastern terminus to Old York-Hampton Highway (Route 634); and

D) That portion of Old York-Hampton Highway between Newsome Drive and Route 17. (R02-70)

- A34. Operation, QA/QC, and the design of the ash removal activities shall be in accordance with the VDEQ permit for the Virginia Power-Yorktown Power Station Solid Waste Disposal Facility. Closure of the facility shall be in accordance with the Closure/Post Closure Plan contained in the VDEQ solid waste permit for the facility.

B. Coal Handling and Storage

- B1. All coal handling equipment shall be designed, constructed and operated to prevent noise and dust emissions in accordance with best available control technology.

The applicant shall furnish to the County a certification from the manufacturer, or his duly authorized representative, that the equipment in service at the Plant includes an operable noise muffler system which has been designed and installed according to the best available control technology at the time the equipment is initially placed into service. Such equipment shall, at a minimum, be maintained to meet such standards contained herein.

- B2. Each load of coal, as it arrives at the plant, shall be tested for moisture, ash, and sulfur to ensure its compliance with performance specifications required by the State Air Pollution Control Board in its Consent Agreement with Vepco dated April 28, 1982. All coal used at the plant shall have a maximum monthly prorated average ash content of 11 percent and maximum monthly prorated average sulfur content of 1.7 percent. Additional tests shall be conducted at any such time as conditions would suggest an alternative source of coal has been received.
- B3. The maximum height for both the active and inactive portions of the coal pile at the plant site shall be 25 feet. No coal shall be stored other than at the coal pile and bunkers and in a manner approved under the terms of the use permit.
- B4. A permanently installed automatic watering system such as the Rainbird Rain Gun Sprinkler or equivalent, shall be placed at the coal piles. Such system shall be designed to provide for the automatic watering down of the active and inactive portions of the coal pile at such time as atmospheric and/or climatic conditions indicate that the application of water with or without a surfactant is necessary to prevent any emissions of coal dust.
- B5. The active portion of the coal handling system and pile, including all transfer points, shall be serviced by a permanently installed water spray system, such as the Rainbird Rain Gun Sprinkler, or equivalent, capable of covering the entire area with a sufficient quantity of water to eliminate the transmission of fugitive dust. Such water systems shall have the capability of manual operation and shall be used as necessary during coal handling operations to prevent fugitive dust discharges.
- B6. And the inactive portion of the coal pile shall be sealed with a material and in an application rate approved by the County Administrator, or his designated deputy, to prevent emissions of any fugitive dust.
- B7. An earthen berm, supplemented with evergreen trees and shrubbery in an amount and pattern approved by the County Administrator, or his designated deputy, shall be constructed as a windbreak along the south and east sides of the solid fuel storage areas whether active or inactive. Such earthen berms, combined with the vegetation, shall be constructed to a height and density, as initially constructed and planted, such that it provides an effective windbreak at all times.
- B8. A double row of evergreen trees shall be installed along Waterview Road in addition to the cedar trees now existing and shall be maintained as a windbreak and visual and sound barrier from the plant for the benefit of the Waterview community.
- B9. Four automatic dust collector systems, designed and certified by the manufacturer as best available control technology allows, shall be continuously available and in use at the: (1) track hopper/coal shaker building complex; (2) coal storage reclaim feeder; (3) coal crusher house/sampler complex; and (4) coal bins complex located in the plant at the top of the fully enclosed conveyor system. If failure of any component of these systems would result in the release of fugitive dust to the atmosphere, temporary dust control

measure, approved in writing by the County Administrator, or his designated deputy will be implemented until the failed component can be repaired.

B10. At a minimum, the applicant shall install, maintain and continuously operate the coal handling system outlined in its submission to York County received on August 27, 1981, and entitled "Yorktown Power Station, Coal Handling System".

B11. Coal cleaning on site shall not be allowed without specific approval of the Board of Supervisors.

C. Disposal Site Construction and Monitoring

C1. All heavy construction vehicle traffic used in preparing the site for ash disposal shall be precluded from using Hornsbyville Road and that portion of Old York-Hampton Highway north of the C & O Railroad tracks.

C2. The applicant shall adhere to the procedures contained in ASTM D1587, "Standard Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes" when samples of the low permeability soil liner are extracted for laboratory testing. The samples shall be tested by an independent geotechnical testing laboratory to verify the permeability criteria established in C5 are met. In the case where a low permeability soil liner is not used in the design of a disposal cell, this requirement shall not apply.

C3. Chemical analyses of leachate from the site shall be provided to American Colloid, or other equivalent distributor, with respect to leachate generation from the proposed ash disposal site for their review in determining the type of liner provided for each cell. Such information on soil and leachate samples will also be provided to York County as well as the responses from the soil sealant liner supplier. In the case where a low permeability soil liner is not used in the design of a disposal cell, this requirement shall not apply.

C4. The applicant shall design and assume continuing responsibility for a groundwater dewatering system, both short term and long term, for the control of groundwater. Applicant shall remain solely responsible for the design, installation, management and maintenance of the system. Should the applicant elect to retain a subcontractor none of the applicant's responsibility under this section shall be transferred or transferable to said contractor.

C5. The liner for the base landfill facility as described in the December, 1981 design drawings by GAI shall be constructed with a bentonite clay soil sealant in strict compliance with the manufacturer's specifications to a permeability of  $1 \times 10^{-8}$  cm/sec. The liner for the vertical expansion portion of the facility shall be constructed in compliance with the facility's VDEQ solid waste permit. Vepco will monitor, in accordance with the approved groundwater monitoring program and cell no. 1 leachate monitoring program, the impact, if any, of the ash fill operation on ground water quality. Based upon data collected in these monitoring programs Vepco may file for an

amendment to the conditional use permit to provide for use of a more permeable liner in subsequent cells.

- C6. The center leachate drain of the base landfill facility shall be designed and constructed to adequately protect groundwater from the introduction of any leachate. To that extent, it shall be constructed of a liner material which would have at least equivalent performance characteristics of American Colloid Company Grade SS100 Bentonite Product at a permeability of  $1 \times 10^{-8}$  cm/sec.
- C7. The site liner shall be constructed with a minimum slope of four tenths (0.4) percent.
- C8. Veeco shall assume all responsibility for the construction and proper functioning of the disposal site. Should the applicant elect to retain a contractor or subcontractor for either construction or operation of the site, none of the applicant's responsibility under this section shall be transferred or transferable to said contractor.
- C9. Any temporary stockpiling of material at the site shall meet the terms of the Erosion and Sedimentation Control Ordinance of the County of York.
- C10. Testing of the soil liner shall be conducted in the laboratory on undisturbed samples taken from the site prior to placing the particular section of the fill area in service for the disposal of fly ash. Testing of geomembrane liner materials shall be at the frequencies specified and in accordance with the requirements in the facility's VDEQ solid waste permit.
- C11. The location of the sampling, method of sampling, and method of testing shall be at the frequencies specified and in accordance with the requirements in the facility's VDEQ solid waste permit.
- C12. Sampling and testing of liner materials shall be at the frequencies specified and in accordance with the facility's VDEQ solid waste permit.
- C13. These testing conditions will supplement any included in Attachment No. 1 of the March 23, 1982 submission to York County entitled "Responses to Questions Concerning Ash Utilization Contained in County's Letter to Veeco Dated March 4, 1982".
- C14. All records of tests and inspections concerning all aspects of the disposal site construction shall be recorded and maintained throughout the life of the fill, and transferred to the County upon transfer of the property.
- C15. The County Administrator, or his designated deputy, has authority to enter the disposal site premises and make spot inspections on an unannounced basis.
- C16. Temporary bottom ash storage shall be limited to a maximum area of two (2) acres and a maximum height of twelve feet. Such area shall be designed and constructed in accordance with all the specifications and operating procedures of the fly ash disposal

cells including liner, drainage and leachate collector as well as dust control measures. The bottom ash stockpile shall be located over the lined area of the base landfill at all times.

- C17. Since the need to store bottom ash is temporary, this area shall be located as shown on the drawings submitted in support of this request, and shall be surrounded by earthen berms for bottom ash containment, except for necessary points of access. Such berms shall have an effective height of at least four (4) feet.
- C18. The bottom ash stockpile shall be located over the lined area of the base landfill at all times. Surface water runoff (stormwater) collected from the bottom ash stockpile shall be directed to the proper stormwater control system. The bottom of the stockpile shall be prepared as such to allow leachate from the bottom ash stockpile to be controlled by the base landfill leachate collection system.
- C19. A fifty (50) foot vegetated evergreen buffer area shall be maintained along all perimeter property lines of the site. Such buffer areas shall be landscaped with at least a double row of evergreen trees, supplemented with shrubs as deemed necessary to complement the trees, and shall be unbroken except for necessary access roads running perpendicular, or nearly so, across it. Said evergreen plantings shall be of adequate size to provide an immediate visual screen of activities conducted with the site, or shall be supplemented with a quick growing variety of shrub to accomplish this objective.

Such buffer areas may be composed of existing vegetation at the site, supplemented as required hereinabove, which effects an immediate visual screen of activities within the site. And the County Administrator, or his designated deputy, shall determine based on field inspections the adequacy of such existing vegetation to accomplish these objectives. Such buffer areas shall, at a minimum, be maintained to meet such standards contained herein.

#### D. Environmental Monitoring and Treatment

- D1. The control of fugitive dust generation concerning each and every aspect of the conversion of the Yorktown Power Plant shall be the responsibility of the Virginia Electric and Power Company. This responsibility shall in no way be transferable to another party.
- D2. Community notification by Vepco to the local media in the form of public service announcements is required in the event of any proposed outage anticipated to last more than 12 hours, or any unexpected outage which has lasted over 24 hours, or particulate emission control equipment or other pollution control devices, which might cause, directly or indirectly, an impact on residents. Such public service announcements shall be distributed by Vepco to the local media including, but not limited to the York Town Crier, Times Herald and Daily Press newspapers and local radio stations WKEZ, WFOG, WGH, WCMS, WTAR, WWE, WQRK and WBCI. These public service announcements shall provide information on the nature, duration and area of the community most likely

to be affected by the resulting fallout of particulate matter or increase in other pollution discharges.

The Company shall provide to the County Administrator or his designated deputy a copy of or written indication of any and all requests for any variance or modification to the regulations or conditions of the State Air Pollution Control Board or the State Water Control Board which: (a) would result, if granted, in an increase in emissions into the air or in discharges into the waters of the Commonwealth; or (b) is associated with the storage, handling, transport or disposal of fly ash, bottom ash, or other particulate by-products associated with the burning of coal; or (c) might cause, directly or indirectly, an impact on residents.

Further, the County Administrator, or his designated deputy, shall be copied on all relevant correspondence between Veeco and the State Air Pollution Control Board or State Water Control Board dealing with any such requests as contained herein. Each submittal to the County shall be accompanied by a summary sheet indicating the amount of emissions increase or decrease, as the case may be, as well as a copy of, and a general summary of, the application for any such amendments or variances.

- D3. Any leachate monitoring system required shall be installed and shall continue in operation throughout the life of the fill, or until demonstrated to be unnecessary.
- D4. The applicant shall continue and/or establish a groundwater and leachate testing and monitoring system, in accordance with the requirements and criteria established herein, in and around the ash structural fill area so long as it shall exist, and coal storage areas so long as it is in use.

Monitoring of the groundwater at the coal storage area and site of the ash structural fill shall include a system of shallow and deep wells. Such program shall further include monitoring as required by the VDEQ Waste Facility Permit 457.

Included among such a monitoring system shall be both a regular periodic water quality analysis testing program as the respective areas are in use, and one which continues to analyze the groundwater around the structural fill so long as it exists. And the specific locations of such monitoring wells shall be those identified in the VDEQ Waste Permit 457.

- D5. All leachate collected at the ash structural fill shall be transported to the plant treatment facility and shall be subject to the NPDES permit issued by the State Water Control Board. Such transportation of leachate may be effected by tank trucks until such time as the Board, at its sole discretion, determines that installation and use of any automatic pumping system to transport such leachate to the plant is warranted in furtherance of the public health, safety and welfare or in protection of environmental resources. To ensure compliance with this condition, a bond, letter of credit, or other form of surety approved by the County Attorney as to form and amount shall be provided to guarantee the installation of such system.

- D6. Such leachate collection tank shall include an automatic recording level indicator at the plant site to ensure the tank is serviced prior to reaching its capacity, and to monitor leachate generation from the fill.
- D7. The soil cover on the south side/face of cells one through six shall be extended beyond the drain being constructed to ensure the integrity and proper functioning of the drain system.
- D8. The applicant shall install, monitor, and maintain a series of High Vol particulate emission testing devices. Such devices shall be installed in such numbers, locations, and manner as required by the County Administrator, or his designated deputy, to monitor emissions from the plant area and the ash disposal site. Frequency of tests shall be determined by the County Administrator, or his designated deputy, in consultation with staff of the State Air Pollution Control Board.
- D9. In an effort to ensure compliance with approved air pollution emission levels, the existing monitoring equipment, supplemented as required, shall be placed into service to measure and monitor particulate emission and sulfur dioxide and shall be operated and maintained in accordance with recommended manufacturers specifications. All data shall be collected continuously on recording charts and shall be maintained for one year.
- D10. All air pollution abatement measures and equipment shall be checked once each shift to ensure their proper operations. Such procedures shall be recorded in station operations log, or equivalent, and shall be available for review.

E. General Conditions

- E1. Use of any amount of delayed petroleum coke as a fuel, either alone or in combination with any other fuel, is prohibited under this permit.
- E2. In the event that any clause, condition or other part of this permit is ruled illegal by a court of competent jurisdiction, it shall be deemed severable from the permit, in order that the permit and all remaining conditions and clauses shall not be deemed invalid. And the prohibition on use of delayed petroleum coke as a fuel is hereby made severable from all other conditions of this permit.
- E3. This permit in no way terminates the terms of a Consent Decree entered on June 27, 1972, as modified on January 11, 1983, concerning the use of coal and coal-like fuels in Vepco's plant. This permit will only become effective after said Consent Decree is modified in a manner acceptable to the Court to reflect the issuance of this permit. And the terms of such modified Decree are incorporated herein by reference; in the event this permit is declared invalid, null or void by a Court of competent jurisdiction, the terms of said Decree shall remain in full force and effect.
- E4. No material subject to the terms of this use permit including but not limited to coal, fly ash, and bottom ash shall be deposited or stored in such manner as would or could

reasonably be expected to allow movement of said materials from the deposit or storage area to other terrain, or into any surface water or groundwater.

- E5. Such fly ash, bottom ash and/or coal storage and/or coal storage and/or disposal sites shall be designed, constructed and operated so as to prevent any contamination of groundwater or surface water.
- E6. Dust control methods, as approved, shall be implemented at all storage/disposal sites. No owner or other person shall cause, allow or permit any materials to be stored or disposed of without taking precautionary measures, approved by the County Administrator as appropriate, to prevent particulate matter from becoming airborne or waterborne. Use of such precautionary measures may be ordered by the County Administrator, or his designated deputy, as required.
- E7. The storage/disposal sites may be inspected by the Board of Supervisors, the County Administrator or either of their designated deputies at any time. The applicant shall provide written authorization for such inspection visits prior to the issuance of the use permit.
- E8. Dust control methods outlined by the applicant in support of this application, and such others as required herein, inspected and approved by the County Administrator as appropriate, shall be implemented at all loading and/or unloading sites, along all haul roads, and in conjunction with any other means of material transport or handling. No owner or other person shall cause, allow or permit any materials to be handled or transported, or any road to be used, constructed, altered, repaired or demolished without taking precautionary measures, approved by the County Administrator as appropriate, to prevent particulate matter from becoming waterborne or airborne.
- E9. Each truck, vehicle or other mechanism used for hauling or transporting coal or other solid fossil fuels, fly ash, bottom ash or other particulate byproducts shall be designed, covered, sealed and operated so as to prevent such materials from being deposited or spilled during transport, upon any public or private lands or property, including those of the applicant, provided, however, that this requirement shall not apply to rail cars used to transport coal or other such fossil fuels to the site of use.

No coal, fly ash, bottom ash or other particulate by-products of the burning of such coal shall be deposited or spilled during transport upon any public or private lands or property except as allowed by this permit.

- E10. Each and every truck, vehicle or other mechanism used in the hauling and transportation of coal or other solid fossil fuels, fly ash, bottom ash or other particulate byproduct shall be inspected and approved by the County Administrator, or his designated deputy, prior to its initial use for such purpose. All such trucks, vehicles and mechanisms shall display an appropriate seal, issued by the County Administrator, to indicate its compliance with the County's inspection requirements. Each such truck, vehicle or mechanism may be inspected by the County Administrator, or his designated deputy, at any time.

Such inspection shall be to determine whether or not such truck, vehicle or mechanism is being maintained and operated so as to prevent the deposit or spilling of any materials during transport and to ensure compliance with Best Available Control Technology noise suppression systems. The applicant shall provide written authorization for such inspections prior to the issuance of the use permit. This requirement shall not be deemed to apply to rail cars used to transport coal to the site of use.

Any vehicle or other mechanism used in the hauling of coal or other solid fossil fuels, fly ash, bottom ash or other particulate byproducts not in compliance with the terms of this permit shall be immediately taken out of service until such remedial action and repair has been effected to render the equipment in compliance. Removal of such vehicle or other mechanism from service for this purpose shall not suspend or diminish any requirement or other condition of this permit.

- E11. All motorized equipment shall include full best available control technology muffler systems to minimize any noise pollution emitted from either the plant site, the haul route, or the ash structural fill.

The applicant shall furnish to the County a certification from the manufacturer, or his duly authorized representative, that the equipment in service at the plant, disposal site and between those two points includes an operable noise muffler system which has been designed and installed according to Best Available Control Technology at the time the equipment is initially placed into service. Such equipment shall, at a minimum, be maintained to meet such standards contained herein.

- E12. A person on each shift shall be designated as responsible for receiving and taking appropriate action on all complaints related to the Station and for recording all pertinent information including the nature of the complaint and action taken to mitigate the complaint. Vepco shall publish a telephone number where complaints will be screened and shifted to the power station if they pertain to its operation.

- E13. Applicant shall ensure that operating personnel shall continue the previously established special program of operations, instrumentation maintenance and calibration as established in the Consent Agreement and Order of the State Air Pollution Control Board dated April 28, 1982. A qualified individual appointed by the Station Manager shall be responsible for the follow-up of this work.

- E14. Upon request by the County Administrator, or his designated deputy, plant tours and classes of instruction shall be conducted for County personnel to familiarize them with the operation of the Station, location and interpretation of appropriate records, logs, instruments and meters, the responsibilities and authority of Station operating personnel, and any other subjects pertinent to the enforcement of this permit. Any oral presentation shall be supplemented by a written outline for County files.

- E15. Prior to any test burns using a solid fuel other than coal, Vepco shall inform, and secure approval in writing from, the State Air Pollution Control Board and the Board of

Supervisors of their intention to conduct a test and the specifics of the test. This shall include time of test, duration, nature of fuel to be tested, and safeguards employed to minimize emissions. During such tests opacity and sulfur dioxide emissions shall not exceed applicable emission limitations established by all parties. Test burn results shall be forwarded to all parties. All zoning regulations shall be adhered to.

- E16. Transport, handling and disposal of fly ash, bottom ash, cover material, and other particulate byproducts and working of the active or inactive portions of the coal pile, other than at the point of unloading rail cars shall be normally and primarily conducted only during daylight hours. This condition recognizes the need to periodically handle coal at the Plant at other times, while simultaneously noting the performance standard of not disrupting the normal lives of surrounding residents. Should such disruptions occur, the Board may consider further restrictions of hours of coal handling.
- E17. Bond, letter of credit, or other form of surety approved by the County Attorney as to form and amount shall be required to ensure compliance with all conditions imposed by the Board of Supervisors.
- E18. Insofar as they pertain directly or indirectly to the storage, handling, transport and/or disposal of coal, fly ash, bottom ash and other particulate byproducts of such coal, subject to the terms and conditions of Section 10-1-4 of the County Zoning Ordinance, a violation of any State or Federal law or regulation in the design, construction or operation of the Yorktown Power Station either by the applicant or its agent, shall constitute a violation of the terms of this use permit.
- E19. The applicant shall be responsible for securing approval of this project under the terms of the site plant element of the County Zoning Ordinance. Nothing herein shall excuse the applicant from the terms of any County ordinance.
- E20. All records of test results and observations made in conjunction with the operation of the plant and its several components, including the ash disposal site, under the terms of this use permit shall be made available to the County Administrator, or his designate deputy, upon request. All records of tests and inspections shall be recorded and maintained throughout the life of the fill, and transferred to the County upon transfer of the property.
- E21. (1) Failure by Vepco to comply with any term or condition of this permit shall be cause for revocation of the permit by the Board of Supervisors, after notice and hearing as required by Chapter 11, Title 15.1, Code of Virginia (1950), as amended.
- (2) The County Administrator shall report to the Board of Supervisors any failure by Vepco to comply with the terms and conditions of this permit. Such report shall be made no later than the regular Board meeting next immediately following the Administrator's determination that such a failure to comply has occurred.
- (3)a. If the County Administrator determines that any failure to comply with the terms and conditions of this permit is causing or will cause, if allowed to continue, serious harm

to the health, safety and welfare of County residents, or that such failure to comply constitutes or will constitute, if allowed to continue, a public nuisance, then the County Administrator shall notify the Vepco plant manager or any person acting in his stead of such determination. Upon receipt of such notice, the plant manager or the person acting in his stead shall immediately notify the County Administrator of all measures taken by Vepco to put the plant back in compliance.

If the County Administrator determines that such measures are adequate to prevent serious harm to the health, safety and welfare of County residents, or to prevent a public nuisance, he shall require Vepco to give the notification required in Condition D2 of this permit if that condition is otherwise applicable. If the County Administrator determines that there has been no timely response or that the measures taken by Vepco are not adequate to prevent serious harm to the health, safety and welfare of County residents or to prevent a public nuisance, he shall issue an order to Vepco temporarily suspending operation of as much of the plant or any other activity as is necessary to prevent serious harm to the health, safety and welfare of County residents, or to prevent a public nuisance.

Upon issuance of such an order, the County Administrator shall also cause to be published notice of a hearing to consider whether the Board of Supervisors shall revoke this permit. Said hearing shall be scheduled no later than 14 days after issuance of the temporary suspension order and shall be a joint meeting of the Planning Commission and the Board.

The County Administrator may enforce his suspension order by injunction or other appropriate action.

(3)b. Immediately upon issuance of a suspension order under Section E21(3a) of this permit, the County Administrator shall notify all members of the Board of Supervisors of his action and he shall schedule a special meeting of the Board of Supervisors. Said meeting shall occur no later than 6 days after issuance of the suspension order. At said meeting the Board shall hear evidence from the County Administrator and Vepco to determine whether the grounds supporting the suspension order, or other grounds of similar gravity, continue to exist. If such grounds are determined to exist, the Board shall continue the suspension until its revocation hearing. If such grounds are determined no longer to exist, or to be not sufficient to pose serious harm to the health, safety and welfare of County residents, or to be a public nuisance, the suspension order shall be rescinded.

Any time after the Board of Supervisors has determined pursuant to this paragraph to continue the suspension order of the County Administrator, the Board may reconsider its decision upon either its own motion or that of Vepco.

The Board of Supervisors, upon receipt of the recommendations of the Planning Commission, and after hearing evidence at the public hearing scheduled pursuant to E21 (3a), shall determine whether to revoke this permit, or to add conditions deemed

necessary in light of the suspension order to protect the health, safety and welfare of County residents or to prevent a public nuisance.

- E22. The County Administrator, or his designated deputy, has authority to enter the plant premises and make spot inspections on an unannounced basis.
- E23. Any specifications, tests, or procedures required under this permit shall be incorporated into the design, construction and operation of the plant and its several components. In the event of a conflict between a requirement or condition specified herein and a referenced document or drawing, the more restrictive and protective measure will govern.
- E24. The Board of Supervisors shall conduct an annual review of this permit. Pursuant to such review, it may amend this permit as it deems necessary to protect the health, safety and welfare of County residents or to prevent a public nuisance. Such amendment to the permit shall be made after notice and public hearing as required in Article 16 of the Zoning Ordinance of York County, as amended.
- E25. The County Administrator may enforce the terms of this permit by injunction of any other appropriate action.



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

October 21, 2009

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

Mr. Bruce Easley  
Sr. Environmental Compliance Coordinator  
Dominion – Yorktown Power Station  
1600 Waterview Road  
Yorktown, Virginia 23692

**RE: Dominion – Yorktown Power Station Industrial Landfill  
York County, Virginia  
Amendment of Permit #457**

Dear Mr. Easley:

Enclosed is Permit #457 for Dominion – Yorktown Power Station. The public participation period ended on October 16, 2009. The applicant and all persons who commented during the public participation period have been sent a response to their comments. No comments requiring changes to the draft permit were received; therefore, only incidental editing of the draft permit occurred.

This major amendment includes an increase in disposal capacity at the Yorktown facility by vertically expanding the existing facility to a peak elevation of 194 feet above sea level over the existing footprint. No lateral increase in disposal area is planned. The increased elevation will provide an increase in total design capacity to approximately 4,725,000 cy. This increase will allow the facility to receive Fossil Fuel Combustion Byproducts (FFPs) for an additional 23 years. Please remove and replace all draft pages with the enclosed final permit pages.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate an appeal of this decision, by filing notice with:

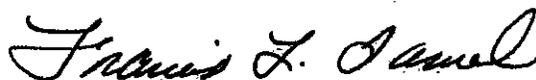
David K. Paylor, Director  
Virginia Department of Environmental Quality  
ATTN: Waste Division  
P.O. Box 1105  
Richmond, Virginia 23218

Mr. Bruce Easley  
Dominion-Yorktown  
Page 2 of 2

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which an appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

Please note that it is the responsibility of applicant to obtain any other permits or authorizations that may be necessary. If there are any questions, please contact Mr. Don Brunson at (804) 698-4239.

Sincerely,



Francis L. Daniel

Enclosure

cc: Milton L. Johnston, DEQ-TRO (letter only)  
Donald H. Brunson, III, DEQ-TRO (letter only)  
Debra J. Trent, DEQ-TRO (letter only)  
Cathy Taylor, Dominion Resources, Inc. (letter only)  
Daniel P. McGrath, P.E., Golder Associates, Inc. (letter only)



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

www.deq.virginia.gov

Preston Bryant  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

October 24, 2007

GUARD HOUSE AT  
MAIN ENTRANCE  
TO P.S.  
(757) 374-5597

Mr. C.D. Holley  
Dominion Generation  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

RE: Approval of Minor Amendment Request  
Revised Operations Manual and Site Drawing due to Operational Change in VPDES  
Permit  
Dominion - Yorktown Power Station Industrial Waste Landfill, Permit No. 457  
York County, Virginia

Dear Mr. Holley:

The Department has concluded the review and processing of the minor amendment request for the referenced facility. The request and associated supporting information was received on October 12, 2007. The amendment is necessary to facilitate compliance with an operational change to your recently reissued VPDES permit. Specifically, the design of on-site stormwater basin is revised to replace the V-notch weir in the outfall with a valved structure. In accordance with 9 VAC 20-80-620.F.1.a, this minor amendment is considered a modification of procedures in the operating plan that do not affect environmental protection afforded (see Table 7.2, B.1.a). All information has been reviewed and this minor amendment is hereby approved. Please retain a copy of this letter in the facility operating record and/or the permit to document this approval.

The attached revised documentation shall be inserted into all copies of the permit as follows:

- Page 2-9 of the revised operation manual must be inserted in Permit Attachment II-1 in place of the existing one.
- The revised Drawing Cover Page and Drawing 11 - North Sediment Basin Outfall 0003 Modifications dated October 2007 must be inserted into Permit Attachment V-1A in place of the existing ones.

Mr. Holley  
Minor Amendment to Permit No. 457  
Page 2 of 3

In conjunction with the permit amendment a new Module I has been developed and is attached. Please note that all previous permit amendments are now outlined in Section I.G of this Module. This updated Module I shall be used to replace the previous version in all copies of the permit.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate an appeal of this decision, by filing notice with:

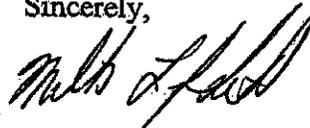
David K. Paylor, Director  
Virginia Department of Environmental Quality  
ATTN: Office of Solid Waste  
P.O. Box 1105  
Richmond, VA 22318

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which an appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

In accordance with 9 VAC 20-80-620.F.1.a.(2), Dominion must send a notice regarding this modification to the local governing body. The notice must be made within 90 days of this approval.

Please note that it is the responsibility of Dominion Virginia Power to obtain any other permits or authorizations that may be necessary. If there are any questions regarding this letter or any matters relating to this approval, please contact Ms. Andrea Arredondo at (757) 518-2021.

Sincerely,



Milton L. Johnston  
Waste Program Manager

Attachments

cc: Ron Birckhead, Dominion Generation  
Debra Trent, TRO, DEQ (w/ attachments)  
File 000728



RECEIVE

SEP 18 2006

OFFICE OF WASTE  
PERMITTING

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2103

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Preston Bryant  
Secretary of Natural Resources

David K. Paylor  
Director

Francis L. Daniel  
Regional Director

September 13, 2006

Mr. J. David Rives, P.E.  
Dominion Generation  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

RE: Approval of Minor Amendment Request  
Revised Cell Sequencing for Ash Removal  
&  
Incorporation of Revised Closure Specifications  
Dominion - Yorktown Power Station Industrial Waste Landfill, Permit No. 457  
York County, Virginia

Dear Mr. Rives:

The Department has concluded the review and processing of the minor amendment request for the referenced facility. The request and associated supporting information was originally received on April 22, 2005. Final revisions were received on June 30, 2006. The amendment is for the minor modification to the proposed cell sequencing for ash removal associated with Dominion's beneficial utilization of coal combustion by-products. In accordance with 9 VAC 20-80-620.F.1.b, this minor amendment is considered a modification of a landfill management practice requiring written director approval (see Table 7.2, H.5). Note that the closure specifications submitted in March of 2002 in accordance with permit condition I.F.3 are hereby formally incorporated into Permit Attachment V-2. Please retain a copy of this letter in the facility operating record and/or the permit to document this approval.

The attached revised documentation shall be inserted into all copies of the permit as follows:

- The revised operation manual dated April 2005 must be inserted in Permit Attachment II-1 in place of the existing one; however, retain the existing Figures and Attachments A, B, and C. Additionally, a new Attachment D - "HRSD Leachate Disposal" is included for insertion behind Attachment C.

Mr. Rives  
Minor Amendment to Permit No. 457  
Page 2 of 3

- The revised reclamation drawings dated May 2006 must be inserted into Permit Attachment V-1A in place of the existing ones.
- The revised closure and post-closure plan dated May 2006 must be inserted in Permit Modules XII and XIII in place of the existing one. Note that new Attachments A, B, and C are provided to replace the existing Attachments.

The specifications have been revised and/or new specifications have been provided to address closure construction. Note that the table of contents has been revised and is included. These specifications (dated March 2002) must be inserted into Permit Attachment V-2 as follows:

02126 – “Fabric Formed Concrete Mats for Geomembrane Armoring,” is a new specification.

02223 – “Backfill and Fill,” is a revised specification and replaces the existing one.

02230 – “Low Permeable Soil Liner,” is a new specification.

02233 – “Coarse Aggregate,” is a revised specification and replaces an existing one.

02418 – “Geocomposite Drainage Layer,” is a new specification.

02597 – “Polyethylene Geomembrane (LLDPE) is a new specification.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate an appeal of this decision, by filing notice with:

David K. Paylor, Director  
Virginia Department of Environmental Quality  
ATTN: Waste Compliance and Permitting  
P.O. Box 10009  
Richmond, VA 23240

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which an appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

Mr. Rives  
Minor Amendment to Permit No. 457  
Page 3 of 3

In accordance with 9 VAC 20-80-620.F.1.a.(2), Dominion must send a notice regarding this modification to the local governing body. The notice must be made within 90 days of this approval.

Please note that it is the responsibility of Dominion Virginia Power to obtain any other permits or authorizations that may be necessary. If there are any questions regarding this letter or any matters relating to this approval, please contact Mr. Don Brunson at (804) 698-4239.

Sincerely,



Maria R. Nold  
Deputy Regional Director

Attachments

cc: Daniel McGrath, P.E. (w/ attachments)  
Golder Associates  
3701 Saunders Avenue  
Richmond, Virginia 23227

Debra Trent, TRO, DEQ (w/ attachments)  
Donald Brunson, OWP, DEQ (w/o attachments)



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 10009, Richmond, Virginia 23240

Fax (804) 698-4500 TDD (804) 698-4021

www.deq.state.va.us

W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

Robert G. Burnley  
Director

(804) 698-4000  
1-800-592-5482

June 13, 2003

Mr. M.G. Deacon, Jr.  
Vice President Operations  
Fossil and Hydro  
Dominion Energy & Dominion Generation  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

**Re: Yorktown Power Station Industrial Landfill, Permit # 457  
Permit Amendment**

Dear Mr. Deacon:

Enclosed is Permit #457 Modules X and XI for the Yorktown Power Station Industrial Landfill. The public participation period ended on May 8, 2003. Your comment letter on the draft permit amendment was received which required minor changes to the permit amendment. The Department's response to your comment letter has been provided under separate cover.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of the service of this decision to initiate an appeal of this decision, by filing notice with:

Robert G. Burnley, Director  
Virginia Department of Environmental Quality  
ATTN: Waste Division  
P.O. Box 10009  
Richmond, VA 23240-0009

In the event that this decision is served to you by mail, three days are added to that period. Please refer to Part Two of the rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specification of the Circuit Court to which the appeal is taken, and additional requirements governing appeals from decisions of administrative agencies.

Mr. M.G. Deacon, Jr.

Fossil and Hydro - Dominion Energy & Dominion Generation

Page 2

Please note that it is the responsibility of the applicant to obtain any other permits or authorizations that may be necessary. If there are any questions, please contact Rachel Borum Cole of my staff at [rbcole@deq.state.va.us](mailto:rbcole@deq.state.va.us) or (757) 518-2145.

Sincerely,

*Leslie A. Romanich*

*for* Robert G. Burnley

Enclosure

cc: Howard Freeland - DEQ, CO  
Milt Johnston - DEQ, TRO  
Dan Moyers, Dominion