



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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Douglas W. Domenech  
Secretary of Natural Resources

David K. Paylor  
Director

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

April 9, 2012

Mr. Eugene Grecheck, Vice President  
Nuclear Development  
Virginia Electric Power Company dba Dominion Virginia Power  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

Re: Virginia Water Protection (VWP) Individual Permit Number 10-2001  
Unit 3 at Dominion's North Anna Power Station, Louisa County, Virginia  
Part III – Major Surface Water Withdrawal for Operational Activities and Lake Level Rise  
Final VWP Individual Permit

Dear Mr. Grecheck:

Pursuant to the VWP Permit Program Regulation 9 VAC 25-210-10 and § 401 of the Clean Water Act Amendments of 1977, Public Law 95-217, the Department of Environmental Quality has enclosed the VWP Individual Permit for the "Part III – Major Surface Water Withdrawal for Operational Activities and Lake Level Rise" of the proposed Unit 3 at Dominion's North Anna Power Station project.

This permit is valid for fifteen from the date of issuance. No re-issuance or extension of the permit may occur, as the permit term cannot exceed the maximum of 15 years

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have **30 calendar days** from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period. Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies.

Alternatively, an owner may request a formal hearing for the formal taking of evidence upon relevant fact issues under Section 2.2-4020 of the Administrative Process Act. A petition for a formal hearing must meet the requirements set forth in 9 VAC 25-230-130.B of the Virginia Administrative Code. In cases

Mr. Eugene Grecheck  
VWP Individual Permit No. 10-2001  
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involving actions of the board, such petition must be filed within 30 calendar days after notice of such action is sent to such owner by certified mail.

If you have any questions, please contact Sarah Marsala at (703) 583-3898 or Sarah.Marsala@deq.virginia.gov.

Respectfully,



Scott W. Kudlas  
Director, Office of Water Supply

Enclosures: Permit Cover Page, Part I - Special Conditions, Part II - General Conditions

cc: Ms. Kimberly Lanterman, Dominion Virginia Power – VIA EMAIL  
Mr. Jason Ericson, Dominion Virginia Power – VIA EMAIL  
Ms. Carolyn Cannella, U.S. Army Corps of Engineers, Walker Mountain Field Office – VIA EMAIL  
Mr. Randy Owen, Virginia Marine Resources Commission – VIA EMAIL



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

**VWP Individual Permit Number 10-2001**

**Effective Date: April 9, 2012**

**Expiration Date: April 8, 2027**

### **VIRGINIA WATER PROTECTION PERMIT ISSUED PURSUANT TO THE STATE WATER CONTROL LAW AND SECTION 401 OF THE CLEAN WATER ACT**

Based upon an examination of the information submitted by the owner, and in compliance with § 401 of the Clean Water Act as amended (33 USC 1341 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the State Water Control Board (board) has determined that there is a reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards. The board finds that the effect of the impact, together with other existing or proposed impacts to surface waters, will not cause or contribute to a significant impairment to state waters or fish and wildlife resources.

Permittee: Virginia Electric & Power Company dba Dominion Virginia Power

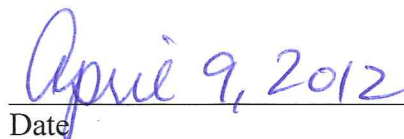
Address: 5000 Dominion Boulevard, Glen Allen, Virginia 23060

Activity Location: The North Anna Power Station site is located at 1022 Haley Drive in Louisa County, Virginia.

Activity Description: This permit authorizes the operation of a surface water withdrawal from Lake Anna to support operational activities of a new nuclear unit (Unit 3) at the existing North Anna Power Station and the change to shoreline wetlands as a result of a permanent increase of three inches in the normal target pool elevation of Lake Anna to 250.25 feet above mean sea level and a resulting increase in the Waste Heat Treatment Facility.

The permitted activity shall be in accordance with this Permit Cover Page, Part I - Special Conditions, and Part II - General Conditions.

  
\_\_\_\_\_  
Melanie Davenport, Director, Water Division

  
\_\_\_\_\_  
Date

## Part I – Special Conditions

### A. Authorized Activities

1. This permit authorizes the operation of a surface water withdrawal from Lake Anna to support operational activities of a new nuclear unit (Unit 3) at the existing North Anna Power Station. This permit only applies to surface water withdrawal activities to support the testing of Unit 3 systems prior to the on-load of nuclear fuel, and withdrawal activities that occur during and after the on-load of nuclear fuel. This permit shall govern releases from the Lake Anna Dam after the permittee has notified DEQ of its intent to implement a permanent increase of three inches in the normal target pool elevation of Lake Anna to support Unit 3 and implements the increase, as provided in Part I.I.1. The VPDES permit No. VA0052451 shall govern releases from the Lake Anna Dam until such time as the permittee has notified DEQ of its intent to implement a permanent increase of three inches in the normal target pool elevation of Lake Anna to support Unit 3 and implements the increase, as provided in Part I.I.1.
2. This permit authorizes the change to shoreline wetlands as a result of a permanent increase of three inches in the normal target pool elevation of Lake Anna to 250.25 feet mean sea level (msl) and resulting increase in the Waste Heat Treatment Facility (WHTF), which serves as mitigation for the surface water withdrawal for Unit 3 authorized under this permit.
3. Authorized activities shall be conducted as described in the Joint Permit Application dated December 2010, and received December 20, 2010, and supplemental materials, revisions and clarifications received through October 25, 2011.
4. The permittee shall notify the DEQ of any additional impacts to surface waters not covered by this permit, of any modifications of the Unit 3 intake structure, and of any change to the type of surface water impacts authorized by this permit.

### B. Permit Term

1. This permit is valid for **fifteen (15) years** from the date of issuance. A new permit term shall be necessary for the continuance of the authorized activities, including water withdrawals, or any permit requirement that has not been completed, including compensation provisions.
2. The permittee shall notify DEQ in writing at least two (2) years prior to the expiration of this permit if reissuance of this permit is required.

### C. Standard Project Conditions

1. The activities authorized by this permit shall be executed in such a manner that any impacts to stream beneficial uses are minimized. As defined in § 62.1-44.3 of the Code of Virginia, "beneficial use" means both instream and offstream uses. Instream beneficial uses include, but are not limited to, the protection of fish and wildlife resources and habitat, maintenance of waste assimilation, recreation, navigation, and cultural and aesthetic values. The preservation of instream flows for purposes of the protection of navigation, maintenance of waste assimilation capacity, the

protection of fish and wildlife resources and habitat, recreation, cultural and aesthetic values is an instream beneficial use of Virginia's waters. Offstream beneficial uses include, but are not limited to, domestic (including public water supply), agricultural uses, electric power generation, commercial, and industrial uses.

2. Virginia Water Quality Standards shall not be violated in any surface waters as a result of the project activities authorized by this permit.
3. All required notifications and submittals shall include project name and permit number and be submitted to the DEQ office stated below, unless directed in writing by DEQ subsequent to the issuance of this permit: Department of Environmental Quality, Office of Water Supply, P.O. Box 1105, Richmond, Virginia 23218.
4. All reports required by this permit and other information requested by DEQ shall be signed by the permittee or a person acting in the permittee's behalf, with the authority to bind the permittee. A person is a duly authorized representative only if *both* criteria below are met. If a representative authorization is no longer valid because of a change in responsibility for the overall operation of the facility, a new authorization shall be immediately submitted to DEQ.
  - a. The authorization is made in writing by the permittee.
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
5. All submittals shall contain the following signed certification statement:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*
6. Any fish kills or spills of fuels or oils associated with the activities authorized by this permit shall be reported to DEQ Northern Regional Office within 12 hours upon discovery at (703) 583-3800. If DEQ cannot be reached, the spill shall be reported to the Virginia Department of Emergency Management (DEM) at 1-800-468-8892 or the National Response Center (NRC) at 1-800-424-8802.
7. DEQ shall be notified by electronic mail within 24 hours or as soon as possible on the next business day when potential environmentally threatening conditions associated with the activities authorized by this permit are encountered which require debris removal or involve potentially

toxic substances. Measures to remove the obstruction, material, or toxic substance or to change the location of any structure are prohibited until approved by DEQ.

#### **D. Surface Water Withdrawal Conditions**

1. Surface water withdrawn from Lake Anna authorized by this permit is to be used for the Circulating Water System, Ultimate Heat Sink Cooling Tower Make-up Water System, Station Water System, and Fire Protection Water Supply System associated with the operation of Unit 3.
2. Prior to the start of on-load of nuclear fuel, total water withdrawal volumes of all Unit 3 systems combined shall not exceed a maximum monthly average of 31.8 million gallons per day (mgd).
3. During and after the on-load of nuclear fuel, total water withdrawal volumes of all Unit 3 systems combined shall not exceed the following:
  - a. Total maximum daily withdrawal volume of 31.8 mgd.
  - b. Total maximum yearly withdrawal volume of 9,490 million gallons.
4. During and after the on-load of nuclear fuel, consumptive water withdrawal volumes of all Unit 3 systems combined shall not exceed the following:
  - a. Consumptive maximum monthly average withdrawal volume of 22.0 mgd.
  - b. Consumptive maximum yearly withdrawal volume of 6,884 million gallons.
5. Maximum rates of evaporation from the hybrid cooling tower during normal operation at 0.4 percent exceedance ambient conditions shall not exceed 16,300 gallons per minute (gpm) for Energy Conservation (EC) Mode and 11,200 gpm for Maximum Water Conservation (MWC) Mode. A test tolerance of 3 percent shall be allowed.
6. The Unit 3 intake screens shall have screen openings no larger than 2 millimeter in length and width and the screen face intake velocities shall be no greater than 0.5 feet per second.
7. The permittee shall implement the drought response plan submitted under transmittal letter dated and received December 2, 2011 or the most recent DEQ approved plan, when the water elevation of Lake Anna decreases to or below 250.0 feet msl.
8. When a drought emergency is declared by the Governor or a Drought Stage declared by the Virginia Drought Coordinator in Louisa, Orange or Spotsylvania Counties, the permittee shall implement either the provisions directed by the declaration, or the conservation measures outlined in the drought response plan referenced in Part I.D.7, whichever is most restrictive, in addition to complying with restrictions on the permitted withdrawal volume required under this section. The permittee shall be responsible for knowing when drought emergencies are declared. Documentation that mandatory conservation measures were implemented during declared drought emergencies shall be provided to DEQ upon request.

## E. Modes of Operation

1. Prior to commercial operation of Unit 3, the Unit 3 cooling system may be operated in EC Mode regardless of the water elevation of Lake Anna, while performing tests on the system.
2. When the water elevation of Lake Anna is below 250.0 feet msl, the permittee shall operate the Unit 3 cooling system in MWC Mode in accordance with the following:
  - a. The transition between the MWC and EC Operating Modes shall be conducted as follows:
    - (1) When the water elevation of Lake Anna is below 250.0 feet msl for 5 consecutive days, the permittee shall complete the transition from EC Mode to MWC Mode by the end of the 5<sup>th</sup> consecutive day.
    - (2) When the water elevation of Lake Anna increases to 250.0 feet msl or above, the permittee may transition from MWC Mode to EC Mode. After transitioning to EC Mode, the hybrid cooling tower system shall be returned to MWC Mode within 24 hours of the lake level going below 250.0 feet msl. After 5 consecutive days of the water elevation of Lake Anna being at or above 250.0 feet msl, the dry tower may be removed from service and drained, at which point the transition allowance in Part I.E.a.(1) is reinstated.
    - (3) Lake levels shall be determined in accordance with the Lake Level Monitoring Plan required in Part I.G.2.a.
  - b. The permittee may operate with the dry cooling tower fans off a maximum of 100 hours per calendar year when lake level is below 250.0 feet msl, but above 247.0 feet msl, to meet high electricity demand. Periods of high electricity demand will be limited to times when outside ambient air temperature measured at the site is greater than 90 degrees Fahrenheit.
  - c. For purposes of this permit the modes of operation for the Circulating Water System of Unit 3 are defined as follows:
    - (1) MWC Mode is the rejection of heat through operation of the hybrid cooling tower in conjunction with the dry cooling tower.
    - (2) EC Mode is the rejection of heat through operation of the hybrid cooling tower alone or in conjunction with the dry cooling tower with the dry cooling tower fans turned off.

## F. Lake Level Management and Lake Anna Dam Instream Flow Release Conditions

1. Lake Level 1: When the water elevation of Lake Anna is at or above 250.25 feet msl, the permittee shall release a minimum of 40 cubic feet per second (cfs) from the Lake Anna Dam.
2. Lake Level 2: When the water elevation of Lake Anna is above 248.1 feet msl but less than 250.25 feet msl, the permittee shall target a release of 40 cfs from the Lake Anna Dam.

3. Lake Level 3: When the water elevation of Lake Anna is at or below 248.1 feet msl, the permittee shall target a release of 20 cfs or a Flow Augmentation Release from the Lake Anna Dam in accordance with the following:
  - a. Prior to reducing Lake Anna Dam releases from 40 cfs to 20 cfs, the permittee shall provide a minimum of 72 hours advance notice to Office of Water Supply, P.O. Box 1105, Richmond, Virginia 23218, downstream users and lake stakeholders identified below:
    - Hanover County Public Utilities
    - Bear Island Paper Company
    - Engel Farms, Inc.
    - Pamunkey Indian Tribal Government
    - Virginia Department of Game and Inland Fisheries
    - Lake Anna Civic Association
  - b. A Flow Augmentation Release of greater than 20 cfs but not more than 40 cfs may be required by DEQ during June-September any time lake levels are at or below 248.1 msl and the 7-day rolling average stream flow at the U.S. Geological Survey (USGS) stream gaging station No. 01671025 on the North Anna River above Little River reads 42 cfs or below.
  - c. The permittee shall increase releases from the Lake Anna Dam at any time if directed by DEQ to minimize any adverse impact to existing downstream beneficial uses from the flow reduction. Downstream beneficial uses are as defined in § 62.1-44.3 of the Code of Virginia.
4. Transition between releases of 40 cfs and 20 cfs from the Lake Anna Dam shall be conducted as follows:
  - a. When transitioning between dam releases of 40 and 20 cfs, the releases shall be stepped down in increments of approximately 5 cfs with at least a 72-hour period following each incremental change, and prior to any subsequent reduction. Releases shall be stepped up in approximate 5 cfs increments with a 24-hour period between each increase.
  - b. When transitioning from dam releases of 20 cfs to 40 cfs, larger release rates than instructed in F.4.a. may be required by DEQ to immediately minimize any adverse impact from the flow reduction.
5. The permittee shall provide recreational flows every Saturday during May and June of every year when the water elevation of Lake Anna is above 250.0 feet msl through a minimum release of 177 cfs from the Lake Anna Dam. Recreational flow releases will be provided for a particular Saturday when the daily lake level reading during the morning of the preceding Friday is greater than 250.0 feet msl. The recreational flow releases shall be implemented for a minimum of 17 hours, unless otherwise approved by DEQ. DEQ may direct the release rate and timing be adjusted if determined necessary to provide sufficient recreational releases. Any adjustments shall not result in a daily average release of greater than 177 cfs, unless the Lake Anna Dam is already releasing at a higher rate in accordance with dam operating procedures at any time when a recreational release is required.



## G. Monitoring and Recordation

1. Monitoring of the authorized water withdrawal volume shall be conducted as follows:
  - a. Prior to the start of on-load of nuclear fuel, the permittee shall provide estimates of daily water withdrawal based upon generally accepted engineering practice to determine compliance with Part I.D.2.
  - b. During and after the on-load of nuclear fuel, the permittee shall monitor the daily withdrawal volume at the intake location using flow totalizer technology. Such meters shall produce volume determinations within plus or minus 10% of actual flows. A defective meter or other device must be repaired or replaced within 30 days. A defective meter is not grounds for not reporting the withdrawals. During any period when a meter is defective, generally accepted engineering practice shall be used to estimate withdrawals and the period during which the meter was defective must be clearly identified in the report.
  - c. During and after the on-load of nuclear fuel, the permittee shall monitor daily discharge volumes from the Circulating Water System and the Ultimate Heat Sink Cooling Tower System associated with Unit 3 using flow totalizer technology to determine compliance with the consumptive withdrawal volume limitations of this permit. Such meters shall produce volume determinations within plus or minus 10% of actual flows. A defective meter or other device must be repaired or replaced within 30 days. A defective meter is not grounds for not reporting the discharges. During any period when a meter is defective, generally accepted engineering methods shall be used to estimate discharges and the period during which the meter was defective must be clearly identified in the report.
  - d. A withdrawal monitoring plan shall be submitted to DEQ for review and approval prior to initiating the authorized water withdrawal. The monitoring plan shall include, at a minimum, the following:
    - (1) The specific monitoring technology to be used.
    - (2) The latitude and longitude of all monitoring devices using NAD27 datum.
    - (3) The method used to calculate the consumptive withdrawal volume, including incorporation of the measurement uncertainty as detailed in Part I.G.1.b and G.1.c.
  - e. The permittee shall document daily Unit 3 withdrawal activities by recording, at a minimum, the following:
    - (1) Date and time of recording.
    - (2) Total volume of water withdrawn each day.
    - (3) Total volume of water discharged each day.

- (4) Water elevation of Lake Anna.
  - (5) Unit 3 cooling system mode of operation (EC Mode or MWC Mode).
2. Monitoring of the water elevation of Lake Anna and flow releases from the Lake Anna Dam shall be conducted as follows:
- a. A Lake Level Monitoring Plan shall be submitted to DEQ for review and approval prior to initiating the authorized water withdrawal. The plan shall include, at a minimum, the following:
    - (1) Procedure for daily monitoring and recording of the water elevation at the Lake Anna Dam.
    - (2) Automated measurements.
    - (3) Measurement accuracy no less than 0.05 feet.
    - (4) Measurement technology that minimizes effects of wave action.
    - (5) Measurement technology to electronically transmit data to a data management system at a frequency of at least hourly.
    - (6) The permittee shall fund the installation of at least one monitoring station located in the upper reaches of Lake Anna.
  - b. Flow releases from the Lake Anna Dam shall be measured and recorded daily using the USGS stream gaging station No. 01670400 on the North Anna River near Partlow located approximately 0.5 mile downstream of the Lake Anna Dam. The permittee shall enter into a cooperative agreement with the USGS for the costs of operation and maintenance of the gage. DEQ shall be provided a copy of any such agreement at the address in Part I.C.3.
3. The permittee shall record all actions taken to comply with lake level management and flow release conditions in Part I.E and F. Each time actions are taken to comply with these conditions, the permittee shall document, at a minimum, the following:
- a. Summary of actions taken to comply with Part I.E and F.
  - b. Date and time the action was taken.
  - c. Water elevation of Lake Anna.
  - d. Flow release from the Lake Anna Dam.

- e. The permittee shall document the following to demonstrate compliance with Part I.E.1.a regarding the allowed transition time between EC Mode and MWC Mode:
  - (1) Date and lake elevation on which the trigger lake level was first observed and each day following up to the 5<sup>th</sup> consecutive day.
  - (2) Date the transition between the two cooling system operational modes was complete.
  - (3) The mode into which the Unit 3 cooling system was transitioned.
- f. The permittee shall document the following for each time the Unit 3 cooling system is operated with the dry cooling tower fans turned off when water elevations of Lake Anna are below 250.0 msl to demonstrate compliance with Part I.E.1.b:
  - (1) Date and length of time (hours and minutes) spent with dry tower cooling fans off.
  - (2) The outside ambient air temperature measured at the site while operating with the dry cooling tower fans off.
  - (3) Cumulative time spent (hours and minutes) with dry cooling tower fans off during a calendar year.
4. The permittee shall contract with the USGS for the installation and operation of two stream gaging stations to monitor flows into Lake Anna in accordance with the following:
  - a. The permittee shall enter into a cooperative agreement with the USGS for the costs of installation, operation and maintenance of the gages. DEQ shall be provided a copy of any such agreement at the address in Part I.C.3.
  - b. The stream gages shall be located on Pamunkey Creek at Route 669 (former USGS No. 01670180) and/or the North Anna River at Route 669, or an alternate location(s) approved by DEQ.
  - c. The gage placement and construction shall be acceptable to the USGS.
  - d. The stream gages shall be installed and operational prior to the initiation of the authorized water withdrawal.
5. The North Anna River shall be monitored during the time period when flow releases from the Lake Anna Dam are below 40 cfs in accordance with the DEQ approved monitoring plan entitled "North Anna River Monitoring Plan, Low Flow Conditions" dated June 20, 2011, and received June 22, 2011, or the most recent DEQ approved plan.
6. The permittee shall evaluate and compare the recorded consumptive water withdrawal volume to consumptive withdrawal volumes predicted by the cooling tower component of the Lake Anna Water Budget Model after three years of operation and every three years thereafter. Model

volumes predicted for the three year evaluation period shall be calculated based on the same mode of operation schedule and meteorological conditions for which the withdrawal occurred. Data from the flow gages installed in accordance with Part I.G.4 shall be used in the validation and improvement of inflow estimation tools used for managing the water budget used in future evaluations of the Unit 3 withdrawal. The specific evaluation method shall be submitted to DEQ for review and approval prior to initiating the authorized water withdrawal.

## H. Reporting

1. The permittee shall submit a certificate of conformance to maximum rates of evaporation required by Part I.D.5 to DEQ within 180 days following the commercial operation date for Unit 3. The certificate shall be from a testing agency certified by the Cooling Tower Institute (CTI).
2. The permittee shall submit the plans for the stream gage stations required by Part I.G.4 to DEQ for review and approval prior to installation of the gage. The permittee shall notify DEQ within thirty (30) days of the gages being installed and operational.
3. The permittee shall notify DEQ of its intention to begin authorized withdrawal activities thirty (30) days prior to the initiation of the authorized withdrawal of surface waters.
4. The permittee shall submit a water withdrawal evaluation report as required by Part I.G.6 to DEQ after every three (3) years of operation of Unit 3. The report shall be submitted within ninety (90) days following each three year evaluation period.
5. The permittee shall submit a surface water withdrawal monitoring report for Unit 3 to DEQ quarterly. The quarterly monitoring periods shall be as follows: January through March, April through June, July through September, and October through December. The report shall be submitted within thirty (30) days following each quarterly monitoring period via the Virginia Water Withdrawal Reporting System. In the event that the system is not available, the permittee shall submit the report by electronic mail. The report shall be made available to the public via posting on a publicly accessible website. Provisions in this condition associated with reporting consumptive volume are not applicable before the start of on-load of nuclear fuel. At a minimum, the report shall include the following information:
  - a. Permittee's name and address.
  - b. Permit number.
  - c. Source from which water is withdrawn.
  - d. Location (latitude and longitude) of water withdrawal intake.
  - e. All information listed in Part I.G.1.e.
  - f. The cumulative volume (million gallons) of water withdrawn and the average consumptive volume (mgd) for each calendar month of the monitoring period and for the calendar year.

- g. The average daily cumulative volume (million gallons) and average daily consumptive volume (mgd) of water withdrawal since initiating the withdrawal as calculated the last day of the monitoring period.
  - h. In the last report for the calendar year, the largest single day withdrawal volume and largest monthly average withdrawal volume (mgd) that occurred in the year and the month(s) in which they occurred.
  - i. The method of measuring the withdrawn volume and consumptive portion of the withdrawal.
  - j. The website from which the public may access the quarterly report.
6. The permittee shall submit a lake level and dam release monitoring report to DEQ quarterly. The quarterly monitoring periods shall be as follows: January through March, April through June, July through September, and October through December. The report shall be submitted within thirty (30) days of each quarterly monitoring period. The report shall include, at a minimum, the following:
- a. Permittee's name and address.
  - b. Permit number.
  - c. Daily Lake Anna water elevations.
  - d. Daily stream gage inflows to Lake Anna.
  - e. Daily Lake Anna Dam flow releases.
  - f. Discussion of Lake Anna water levels and corresponding flow releases from the Lake Anna Dam during the monitoring period.
  - g. A copy of the records required by Part I.G.3 for the monitoring period.
  - h. Discussion of actions taken to comply with lake level and flow release conditions in Part I.E and F. This discussion shall include the following:
    - (1) If the Unit 3 cooling system was operated with the dry cooling tower fans off when water elevations of Lake Anna were below 250.0 feet msl, the permittee shall include the cumulative hours used for the calendar year.
    - (2) A discussion of any actions taken to comply with the Saturday recreational releases required by Part I.F.5 shall only be required for monitoring reports that include May and June within the monitoring period.

- i. If Lake Anna water elevations are at or below 250.0 feet msl during a monitoring period, the permittee shall include a discussion of the implementation of the approved drought response plan.
7. When monitoring of the North Anna River is required in accordance with Part I.G.5, then the permittee shall:
    - a. Notify DEQ within ten (10) days of completing the required monitoring.
    - b. Submit a report of the monitoring results within ninety (90) days of completing the required monitoring.

### **I. Compensatory Mitigation**

1. The permittee shall enact a permanent increase of three inches in the normal target pool elevation of Lake Anna and resulting increase in the WHTF prior to initiating the authorized surface water withdrawal. The increase of three inches shall occur no later than 12 months prior to the commercial operation date for Unit 3. Notifications associated with implementation of the lake level rise shall be as follows:
  - a. The permittee shall notify DEQ thirty (30) days prior to implementing the lake level rise.
  - b. The permittee shall notify DEQ within ten (10) days upon completing the necessary actions to implement the lake level rise.
2. Documentation of the permanent increase of three inches in the normal target pool elevation of Lake Anna and resulting increase in the WHTF shall occur through a change in the Spillway Gate Operating Procedure. A summary of dam operating procedures applicable to a 250.25 feet msl targeted normal pool elevation shall be submitted to DEQ for review and approval prior to implementation of the three inch increase in water elevations.
3. The compensation requirement of 8.14 wetland credits for the change to shoreline wetlands associated with a permanent increase of three inches in the normal target pool elevation of Lake Anna and resulting increase in the WHTF shall be provided through one or a combination of the following:
  - a. Purchase of wetland credits from an approved wetland mitigation bank located within the same USGS Hydrologic Unit Code (HUC) or adjacent HUC within the same river watershed as Lake Anna.
  - b. Purchase of wetland credits from the Virginia Aquatic Resources Trust Fund (VARTF).
4. Documentation that an approved wetland mitigation bank has debited the appropriate amount of wetland credits from the mitigation bank ledger shall be submitted to DEQ ninety (90) days prior to implementing the permanent increase of three inches in the normal target pool elevation of Lake Anna and resulting increase in the WHTF.

5. Documentation of the receipt of the VARTF contribution shall be submitted to DEQ ninety (90) days prior to implementing the permanent increase of three inches in the normal target pool elevation of Lake Anna and resulting increase in the WHTF.
6. This permit incorporates by reference the Memorandum of Agreement (MOA) dated October 28, 2009, between Virginia Electric and Power Company (D/B/A/ Dominion Virginia Power) and the Virginia Department of Game and Inland Fisheries (DGIF), inclusive of any approved amendments, concerning the mitigation of detrimental impacts to aquatic resources. Documentation indicating compliance with the provisions of the MOA shall be submitted to DEQ within thirty (30) days following the commercial operation date for Unit 3.

## Part II – General Conditions

### A. Duty to Comply

The permittee shall comply with all conditions of the VWP permit. Nothing in the VWP permit regulations shall be construed to relieve the permittee of the duty to comply with all applicable federal and state statutes, regulations and prohibitions. Any VWP permit violation is a violation of the law, and is grounds for enforcement action, VWP permit termination, revocation, modification, or denial of an application for a VWP permit extension or reissuance.

### B. Duty to Cease or Confine Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the activity for which a VWP permit has been granted in order to maintain compliance with the conditions of the VWP permit.

### C. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any impacts in violation of the permit which may have a reasonable likelihood of adversely affecting human health or the environment.

### D. VWP Permit Action

1. A VWP permit may be modified, revoked and reissued, or terminated as set forth in 9 VAC 25-210 et seq.
2. If a permittee files a request for VWP permit modification, revocation, or termination, or files a notification of planned changes, or anticipated noncompliance, the VWP permit terms and conditions shall remain effective until the request is acted upon by the board. This provision shall not be used to extend the expiration date of the effective VWP permit. If the permittee wishes to continue an activity regulated by the VWP permit after the expiration date of the VWP permit, the permittee must apply for and obtain a new VWP permit or comply with the provisions of 9 VAC 25-210-185 (VWP Permit Extension).

VWP permits may be modified, revoked and reissued or terminated upon the request of the permittee or other person at the board's discretion, or upon board initiative to reflect the requirements of any changes in the statutes or regulations, or as a result of VWP permit noncompliance as indicated in the Duty to Comply subsection above, or for other reasons listed in 9 VAC 25-210-180 (Rules for Modification, Revocation and Reissuance, and Termination of VWP permits).



**E. Inspection and Entry**

Upon presentation of credentials, any duly authorized agent of the board may, at reasonable times and under reasonable circumstances:

1. Enter upon any permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the VWP permit conditions;
2. Inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the VWP permit; and
3. Sample or monitor any substance, parameter or activity for the purpose of ensuring compliance with the conditions of the VWP permit or as otherwise authorized by law.

**F. Duty to Provide Information**

1. The permittee shall furnish to the board any information which the board may request to determine whether cause exists for modifying, revoking, reissuing or terminating the VWP permit, or to determine compliance with the VWP permit. The permittee shall also furnish to the board, upon request, copies of records required to be kept by the permittee.
2. Plans, specifications, maps, conceptual reports and other relevant information shall be submitted as required by the board prior to commencing construction.

**G. Monitoring and Records Requirements**

1. Monitoring of parameters, other than pollutants, shall be conducted according to approved analytical methods as specified in the VWP permit. Analysis of pollutants will be conducted according to 40 CFR Part 136 (2000), Guidelines Establishing Test Procedures for the Analysis of Pollutants.
2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
3. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart or electronic recordings for continuous monitoring instrumentation, copies of all reports required by the VWP permit, and records of all data used to complete the application for the VWP permit, for a period of at least three years from the date of the expiration of a granted VWP permit. This period may be extended by request of the board at any time.
4. Records of monitoring information shall include:
  - a. The date, exact place and time of sampling or measurements;

- b. The name of the individuals who performed the sampling or measurements;
- c. The date and time the analyses were performed;
- d. The name of the individuals who performed the analyses;
- e. The analytical techniques or methods supporting the information such as observations, readings, calculations and bench data used;
- f. The results of such analyses; and
- g. Chain of custody documentation.

#### **H. Transferability**

This VWP permit may be transferred to a new permittee only by modification to reflect the transfer, by revoking and reissuing the permit, or by automatic transfer. Automatic transfer to a new permittee shall occur if:

1. The current permittee notifies the board within 30 days of the proposed transfer of the title to the facility or property;
2. The notice to the board includes a written agreement between the existing and proposed permittee containing a specific date of transfer of VWP permit responsibility, coverage and liability to the new permittee, or that the existing permittee will retain such responsibility, coverage, or liability, including liability for compliance with the requirements of any enforcement activities related to the permitted activity; and
3. The board does not within the 30-day time period notify the existing permittee and the new permittee of its intent to modify or revoke and reissue the VWP permit.

#### **I. Property rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize injury to private property or any invasion of personal rights or any infringement of federal, state or local law or regulation.

#### **J. Reopener**

Each VWP permit shall have a condition allowing the reopening of the VWP permit for the purpose of modifying the conditions of the VWP permit to meet new regulatory standards duly adopted by the board. Cause for reopening VWP permits includes, but is not limited to when the circumstances on which the previous VWP permit was based have materially and substantially changed, or special

studies conducted by the board or the permittee show material and substantial change, since the time the VWP permit was issued and thereby constitute cause for VWP permit modification or revocation and reissuance.

#### **K. Compliance with State and Federal Law**

Compliance with this VWP permit constitutes compliance with the VWP permit requirements of the State Water Control Law. Nothing in this VWP permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other state law or regulation or under the authority preserved by § 510 of the Clean Water Act.

#### **L. Severability**

The provisions of this VWP permit are severable.

#### **M. Permit Modification**

A VWP permit may be modified, but not revoked and reissued except when the permittee agrees or requests, when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of VWP permit conditions that differ from those of the existing VWP permit or are absent from it;
2. When new information becomes available about the operation or activity covered by the VWP permit which was not available at VWP permit issuance and would have justified the application of different VWP permit conditions at the time of VWP permit issuance;
3. When a change is made in the promulgated standards or regulations on which the VWP permit was based;
4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Act;
5. When changes occur which are subject to "reopener clauses" in the VWP permit; or
6. When the board determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use and the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to §§ 62.1-242 through 62.1-253 of the Code of Virginia, during the term of the VWP permit.

**N. Permit Termination**

After notice and opportunity for a formal hearing pursuant to Procedural Rule No. 1 (9 VAC 25-230-100) a VWP permit can be terminated for cause. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the VWP permit;
2. The permittee's failure in the application or during the VWP permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;
3. The permittee's violation of a special or judicial order;
4. A determination by the board that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by VWP permit modification or termination;
5. A change in any condition that requires either a temporary or permanent reduction or elimination of any activity controlled by the VWP permit; and
6. A determination that the permitted activity has ceased and that the compensatory mitigation for unavoidable adverse impacts has been successfully completed.

**O. Civil and Criminal Liability**

Nothing in this VWP permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

**P. Oil and Hazardous Substance Liability**

Nothing in this VWP permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under § 311 of the Clean Water Act or §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

**Q. Unauthorized Discharge of Pollutants**

Except in compliance with this VWP permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances;
2. Excavate in a wetland;

3. Otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life, to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses;
4. On or after October 1, 2001 conduct the following activities in a wetland:
  - a. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions;
  - b. Filling or dumping;
  - c. Permanent flooding or impounding;
  - d. New activities that cause significant alteration or degradation of existing wetland acreage or functions.

#### **R. Permit Extension**

Any permittee with an effective VWP permit for an activity that is expected to continue after the expiration date of the VWP permit, without any change in the activity authorized by the VWP permit, shall submit written notification requesting an extension. The permittee must file the request prior to the expiration date of the VWP permit. Under no circumstances will the extension be granted for more than 15 years beyond the original effective date of the VWP permit. If the request for extension is denied, the VWP permit will still expire on its original date and, therefore, care should be taken to allow for sufficient time for the board to evaluate the extension request and to process a full VWP permit modification, if required.