



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VWP Individual Permit Number 10-1496

Effective Date: April 15, 2011

Expiration Date: April 14, 2026

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 installation and operation of a surface water withdrawal from two intakes located at two points along the shoreline of Lake Anna to support the construction of a new nuclear unit (Unit 3) at the existing North Anna Power Station.

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

Handwritten signature of Thomas A. Faha in black ink.

Thomas A. Faha, Regional Director

Date

Handwritten date "April 15, 2011" in black ink.

Part I – Special Conditions

A. Authorized Activities

1. This permit authorizes the installation and operation of a surface water withdrawal from two intakes located at two points along the shoreline of Lake Anna to support the construction of a new nuclear unit (Unit 3) at the existing North Anna Power Station. The authorized surface water withdrawal activity shall cease upon the commercial operation date for the new nuclear unit and is not authorized after that date.
2. Authorized intake locations on Lake Anna shall be as depicted on the map entitled “Figure 1 Proposed North Anna Power Station Unit 3, Potential Water Withdrawal Locations for Construction Activities” submitted under cover letter dated September 8, 2010, and received September 10, 2010, or the most recent DEQ approved locations. Authorized activities shall be conducted as described in the Joint Permit Application dated September 8, 2010, and received September 9, 2010, and additional information submittals received through November 12, 2010.
3. The permittee shall notify the DEQ of any additional impacts to surface waters, including wetlands; of any modifications of the intake structures; and of any change to the type of surface water impacts associated with Part II of the project. Any additional impacts to surface waters, modifications, or changes shall be subject to individual permit review and/or modification of this permit.

B. Permit Term

1. This permit is valid for **fifteen (15) years** from the date of issuance. A new permit 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 120 calendar days prior to the expiration of this permit if reissuance of this permit is required.

C. Standard Project Conditions for Permitted Activities

1. The activities authorized by this permit shall be executed in such a manner that any impacts to stream beneficial uses are minimized. Beneficial uses are defined in § 62.1-10(b) and § 62.1-44.3 of the Code of Virginia.
2. No activity shall substantially disrupt the movement of aquatic life indigenous to the water body, including those species that normally migrate through the area, unless the primary purpose of the activity is to impound water.
3. No activity shall cause more than minimal adverse effect on navigation, and no activity shall block more than half of the width of the stream at any given time.
4. All construction, construction access, and demolition activities associated with this project shall be accomplished in a manner that minimizes construction materials or waste materials from entering

surface waters, unless authorized by this permit. Wet, excess, or waste concrete shall be prohibited from entering surface waters.

5. Measures shall be employed at all times to prevent and contain spills of fuels, lubricants, or other pollutants into surface waters.
6. Virginia Water Quality Standards shall not be violated in any surface waters as a result of the permitted activities.
7. All required notifications and submittals shall include project name and permit number and be submitted to the DEQ office stated below, to the attention of the VWP permit manager, unless directed in writing by DEQ subsequent to the issuance of this permit: Department of Environmental Quality-Northern Regional Office, 13901 Crown Court, Woodbridge, Virginia 22193.
8. 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.
9. 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."
10. Any fish kills or spills of fuels or oils shall be reported to DEQ 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.
11. 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 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 Withdrawals

1. Surface water withdrawn from Lake Anna and authorized under this permit is authorized to be used for the following activities to support the construction of Unit 3: dust control, moisture control, cleaning of rock surfaces prior to inspection, irrigation to establish vegetative erosion and sediment control measures, construction equipment cleaning, fire protection. Any other reasonable construction related uses associated with the construction of Unit 3 not listed may be approved by DEQ prior to implementation.
2. The withdrawal of water from Lake Anna shall not exceed the following:
 - a. Maximum instantaneous withdrawal volume of 3,600 gallons per minute.
 - b. Maximum daily withdrawal volume of 750,000 gallons per day (gpd).
 - c. Maximum annual withdrawal volume of 149 million gallons.
3. The maximum daily withdrawal volumes as it relates to the water elevation of Lake Anna shall be authorized in accordance with the table below. Withdrawal shall cease once lake levels decrease below 244.0 feet msl.

Water Elevation (feet msl)	Max. Daily Withdrawal (gpd)
= 248.0	750,000
<248.0 and = 247.0	500,000
<247.0 and = 246.0	250,000
<246.0 and = 245.0	125,000
<245.0 and = 244.0	62,500

4. The permittee must read the elevation of Lake Anna within 24 hours prior to initiating a water withdrawal. A single reading will govern surface water withdrawals allowed under conditions Part I.D for not more than the next 24 hours.
5. The permittee shall submit to DEQ for review and approval prior to commencing any surface water withdrawal activities a conservation management plan that addresses the measures the permittee will implement to conserve water during times when the elevation of Lake Anna decreases below 248 feet msl.
6. When a drought emergency is declared by the Commonwealth of Virginia in the Northern Piedmont Drought Evaluation Region of Louisa, Orange and/or Spotsylvania Counties, the permittee shall implement the mandatory conservation measures applicable to the proposed uses of the withdrawn water, as detailed in Attachment A of this permit in addition to complying with restrictions on the permitted withdrawal volume and implementation of the conservation management plan required under this section. The permittee shall be responsible for determining

when drought emergencies are declared. DEQ may require documentation that mandatory conservation measures were implemented during declared drought emergencies. Drought status may be found on DEQ's website under the Virginia Drought Status web page (<http://www.deq.virginia.gov/waterresources/drought/homepage.html>).

7. The permittee shall submit to DEQ for approval the final design of the water withdrawal system prior to initiating the authorized withdrawal. Any changes made to the final design must be submitted to DEQ for review and approval prior to implementation.
8. The intake screens shall be so designed that screen openings are not larger than 1 millimeter in width and the screen face intake velocities are not greater than 0.25 feet per second.
9. The permittee shall notify DEQ 10 days prior to initiating authorized withdrawal of surface waters.
10. The permittee shall submit to DEQ for approval the methodology that will be used to determine the amount of water withdrawn daily and elevation of Lake Anna for review and approval prior to initiating any water withdrawal activities.
11. On each day that pumping occurs, the permittee must monitor and record the following, for each pump:
 - a. Date and time;
 - b. Identity(-ies) of the pump operator(s) and data recorder(s);
 - c. Total amount of water withdrawn each day, and
 - d. Elevation of Lake Anna.
12. The permittee shall submit a water withdrawal monitoring report to DEQ monthly. The report shall be submitted within 20 days following a monthly 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 public accessible website. The monitoring shall be conducted in accordance with DEQ approved methodologies in accordance with Part I.D.10. The report shall include the following information in addition to the information listed in Part I.D.11.
 - a. The permittee's name and address;
 - b. The permit number;
 - c. The source (s) from which water is withdrawn;
 - d. The location (latitude and longitude) of each point of water withdrawal;
 - e. The cumulative volume (million gallons) of water withdrawn each month of the calendar year;

- f. In the report for each December, include the largest single day withdrawal volume (million gallons) that occurred in the year and the month in which it occurred; and
 - g. The method of measuring each withdrawal.
 - h. The website from which the public may access the monthly report.
13. The permittee shall notify DEQ 10 days following completion of construction activities associated with Unit 3 and ceasing the authorized water withdrawal activity.
14. Water withdrawal monitoring and reporting activities shall comply with this section, Part I.C, and Part II. All records and information that result from the monitoring and reporting activities required by this permit, including any records of maintenance activities to the withdrawal system, shall be retained for the life of the permit. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or as requested by the State Water Control Board.

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.

ATTACHMENT A

Mandatory Non-essential Water Use Restrictions

In addition to complying with restrictions on the permitted withdrawal volume and required conservation management plan referenced in Part I.D of the permit, the permittee shall also comply with the restrictions of this section. The following non-essential water uses will be prohibited during periods of declared drought emergencies. Please note the exceptions that follow each prohibited use. These prohibitions and exceptions will apply to uses from all sources of water and will only be effective when the Governor of Virginia declares a Drought Emergency through the issuance of an executive order. Water use restrictions shall not apply to the agricultural production of food or fiber, the maintenance of livestock including poultry, nor the commercial production of plant materials so long as best management practices are applied to assure the minimum amount of water is utilized.

Washing paved surfaces such as streets, roads, sidewalks, driveways, garages, parking areas, tennis courts, and patios is prohibited, except as noted below:

- Driveways and roadways may be pre-washed in preparation for recoating and sealing.
- Tennis courts composed of clay or similar materials may be wetted by means of a hand-held hose equipped with an automatic shutoff device at the minimum rate necessary for maintenance. Automatic wetting systems may be used between the hours of 9:00 p.m. and 10:00 a.m. at the minimum rate necessary.
- Public eating and drinking areas may be washed using the minimum amount of water required to assure sanitation and public health.
- Water may be used at the minimum rate necessary to maintain effective dust control during the construction of highways and roads.

Use of water for washing or cleaning of mobile equipment including automobiles, trucks, trailers and boats is prohibited, except as noted below:

- Mobile equipment may be washed using hand held containers or hand held hoses equipped with automatic shutoff devices provided that no mobile equipment is washed more than once per calendar month and the minimum amount of water is utilized.
- Construction, emergency or public transportation vehicles may be washed as necessary to preserve the proper functioning and safe operation of the vehicle.
- Mobile equipment may be washed at car washes that utilize reclaimed water as part of the wash process or reduce water consumption by at least 10% when compared to a similar period when water use restrictions were not in effect.
- Automobile dealers may wash cars that are in inventory no more than once per week utilizing hand held containers and hoses equipped with automatic shutoff devices, automated equipment that utilizes reclaimed water as part of the wash process, or automated equipment where water consumption is reduced by at least 10% when compared to a similar period when water use restrictions were not in effect.

- Automobile rental agencies may wash cars no more than once per week utilizing hand held containers and hoses equipped with automatic shutoff devices, automated equipment that utilizes reclaimed water as part of the wash process, or automated equipment where water consumption is reduced by at least 10% when compared to a similar period when water use restrictions were not in effect.
- Marine engines may be flushed with water for a period that does not exceed 5 minutes after each use.

All residential, business and industrial water users; whether supplied by public water supplies, self-supplied sources, or private water wells; who do not normally utilize water for any of the listed prohibited uses are requested to voluntarily reduce water consumption by at least 10%. This reduction may be the result of elimination of other non-essential water uses, application of water conservation practices, or reduction in essential water uses.