



Stantec Consulting Services Inc.
5209 Center Street
Williamsburg VA 23188-2680

July 31, 2015
File: 203446520

Attention: Mr. Randy Steffey and Mr. Ben Stagg

U.S. Army Corps of Engineers
Norfolk District Office
803 Front Street
Norfolk, VA 23501

Virginia Marine Resources Commission
2600 Washington Avenue, 3rd Floor
Newport News, VA 23607

**Reference: NAO-2012-0080/13-0408 Surry – Skiffes Creek – Whealton Joint Permit Application
Comprehensive Graphics**

Dear Mr. Steffey and Mr. Stagg:

On behalf of the applicant, Dominion Virginia Power (Dominion), Stantec Consulting Services, Inc. is submitting a modification to the previously submitted Joint Permit Application (JPA) for the proposed Surry – Skiffes Creek – Whealton Project. To ensure that the Corps and Virginia Marine Resources Commission (VMRC) have complete and current information by which to base their permit decision, Dominion is providing a complete set of updated graphics. This complete set of graphics is provided in Appendix A and includes:

1. Location Map
2. Vicinity Map
3. Jurisdictional Area Impacts Map
4. Jurisdictional Area Impacts Map showing sensitive resources
5. James River Crossing Profile
6. Wood Creek Crossing Profile
7. Skiffes Creek Crossing Profile
8. Surry-Skiffes Creek Structure Details
9. Skiffes Creek – Whealton Structure Details
10. Foundation Details
11. Fender System Details
12. Direct APE Map – Archaeological Resources
13. Indirect APE Map – Architectural Resources



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14. APE Map – Battlefields

Specifically, an email from the Corps on June 18, 2015 requested clarification on impacts shown on the Jurisdictional Area Impacts Map provided for the May 21, 2015 public notice on effects to historic resources. The Jurisdictional Area Impacts Map has been revised to address the comments in the email, which are provided below. Stantec is also providing a brief response to each comment for further clarification.

1. Figure 8: 285/422 – Proposed tower replacement falls on contour(s) that looks susceptible to possible wetland boundary that might extend under the “project limits”. Please verify no impacts & avoidance as proposed.

Response: Structure 285/422 is also labeled as Structure 2138/7 on the revised graphics. There are no wetlands present at the location of the proposed structure, as verified by the wetland delineation, confirmed by the Corps. Wetland impacts will be avoided at this structure.

2. Figure 10: 285/439 – Note indicating re-stringing only.

Response: Structure 285/439 is also labeled as Structure 2138/24 on the revised graphics. The symbology of the proposed structures has been updated to differentiate between structures that will be reconducted and replaced.

3. Figure 12: 285/456 – Note indicating re-stringing only.

Response: Structure 285/456 is also labeled as Structure 2138/39 on the revised graphics. The symbology of the proposed structures has been updated to differentiate between structures that will be reconducted and replaced.

4. Figure 12: 285/459 – Proposed tower replacement falls on wetland polygon however plans propose no impacts. Please verify or correct as needed.

Response: Structure 285/459 is also labeled as Structure 2138/43 on the revised graphics. This structure is outside the limits of the wetlands; therefore, wetland impacts will be avoided at this structure.



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5. Figure 14 & 15: 1209/565, 1209/568, 1209/572, and 1209/573 – Proposed tower replacement falls on wetland polygon however plans propose no impacts. Please verify or correct as needed.

Response: Structures that appeared to be labeled on the original graphics as part of a Line 1209, are actually part of Line 1209, which is idle. Since the idle 209 Line will be removed and Line 58 will be conducted with the proposed Line 2138 (Skiffes Creek – Whealton 230 kV), these structures have been relabeled with Line 2138 and Line 58 structure numbers. Impacts have been revised for Structures 2138/65 (58/292), 2138/69 (58/296), and 2138/73 (58/300). Wetlands will be avoided at Structure 2138/74 (58/301); therefore, a note has been added to the graphic.

6. Figure 16 & 21: 292/593 and 292/630 – Proposed tower replacement falls on wetland polygon however plans propose no impacts. Please verify or correct as needed.

Response: Due to a labeling error on the original graphics, the structure the Corps refers to as 292/593 is actually 292/592, also labeled as Structure 2138/93 on the revised graphics. This structure is shown clearly outside the wetland limits on the revised graphics and no wetland impacts will occur. Due to a labeling error on the original graphics, the structure the Corps refers to as 292/630 is actually 292/629, also labeled as Structure 2138/137 on the revised graphics. This structure is outside the wetland limits and no wetland impact will occur.

The information and graphics contained within this letter should be used to modify the permit application for the project. A description of the design updates are provided below and followed by a discussion of project impacts. In addition to this modification, updated threatened and endangered species habitat surveys for the small whorled pogonia (*Isotria medeoloides*) (SWP) are provided for ROW on the BASF property as the previous surveys have expired. The appropriate areas have been resurveyed, and the report is included in Appendix C.

Design Updates

Several design updates have resulted in minor revisions to the graphics.



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1. Revisions to the proposed Skiffes Creek 500 kV – 230 kV – 115 kV Switching Station (Switching Station) to avoid impacts to Resource Protection Areas (RPAs).
2. Changes to the structure types on the land based portion of the Surry – Skiffes Creek 500 kV line as well as the inclusion of work required on structures on adjacent lines that will be required because of the project.
3. Updates to the minimum vertical clearances associated with the Section 10 waters of the James River, Wood Creek, and Skiffes Creek.

Switching Station Revisions

In an effort to avoid impacts to RPAs at the proposed switching station, Dominion has made modifications to the switching station site plan to include incorporation of retaining walls. The redesign of the switching station has resulted in a realignment of the connection of the existing Line 34 and Line 209 from the switching station to the ROW on the east side. Two new structures (34/146 and 209/487) will be constructed within existing ROW, immediately southeast of the switching station (Appendix A, Jurisdictional Area Impacts Map Sheet 8). Clearing of vegetation will be required between these new structures and the switching station to provide adequate clearance for the conductors. Work will also be required at existing structure 2146/146, located northwest of the switching station. Proposed work will be needed to accommodate the Line 2146 alignment modifications within the switching station boundary. No ground disturbance will be required at this structure. No crossings of resources under the jurisdiction of the VRMC are required by the revisions at the switching station.

As areas around these three structures are not within the limits of the preliminary jurisdictional determination, Stantec ecologists delineated wetlands and other waters of the U.S. The results of the delineation, including a revised wetland delineation map and data forms, are provided in Appendix B.

Additionally, the areas around these three structures are outside of the Direct Area of Potential Effects (APE) for the project. A description of the subsequent archaeological work is provided within the Cultural Resources section of this letter.



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Structure Updates

The revised Jurisdictional Area Impacts Map reflects the current proposal and indicates whether towers are new, replacements, or will be reconducted. The structure numbers shown in the graphics have also been revised to include the structure number for the new Skiffes Creek – Whealton 230 kV line, which will be Line 2138. There are three locations where structure work is proposed outside of the project area shown on the original Jurisdictional Area Impacts Map. Two of these locations involve reconducting work at existing structures that will tie into replacement structures for the Skiffes Creek – Whealton 230 kV line. A replacement structure is also proposed within these locations. The third location is associated with work required at the existing Warrick Substation. Reconducting work will occur at several existing structures within the substation fence and one new structure is proposed outside of the substation footprint. No crossings of resources under the jurisdiction of the VMRC are required by these updates.

As these locations are not within the limits of the preliminary jurisdictional determination, Stantec ecologists delineated wetlands and other waters of the U.S. The results of the delineation, including a revised wetland delineation map and data forms, are provided in Appendix B.

These three locations are outside of the Direct Area of Potential Effects (APE) for the project. A description of the subsequent archaeological work is provided within the Cultural Resources section of this letter.

Minimum Vertical Clearances

Adjustments in the design have resulted minor changes in the minimum vertical clearances above mean high water (MHW) for Section 10 waters. The revised minimum vertical clearances for Section 10 waters are provided in Table 1.

These changes are reflected in the Jurisdictional Area Impacts Maps and profiles provided in Appendix A. The revised minimum vertical clearances for the James River are above the 180 FT above MHW requirements for navigation. No minimum vertical clearances for crossings of VMRC only jurisdictional waters have changed from what was provided in the August 2013 JPA.



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Table 1. Minimum Vertical Clearance Revisions

Section 10 Water	Minimum Vertical Clearance Above MHW (FT)	
	August 2013 JPA	Currently Proposed
James River –Secondary Channel	191	188
James River – Tribell Shoal Channel	204	201
Wood Creek	83	70
Skiffes Creek	71.5	74

Project Jurisdictional Impacts

The design updates at the switching station and the Warrick Substation will result in an additional 0.04 acre of permanent conversion impacts to palustrine forested wetlands. As proposed, the Surry – Skiffes Creek – Whealton 500 kV/230 kV project will result in a total of 0.56 AC of PFO wetland to PSS wetland conversion for ROW clearing, permanent impacts to 260 SF (0.006 AC) of non-tidal wetland for pipe pile foundations, and permanent impacts to 2,712 SF (0.062 AC) of the river bottom for the construction of 17 towers and the fender system within the James River. The Joint Permit Application (JPA) has been revised to reflect these updates and is provided in Appendix D. Table 2 below provides a summary of the wetland conversion impacts. Compensation for wetland conversion impacts will be provided at a ratio of 1:1 through the purchase of wetland mitigation credits. Wetland credits will be purchased from mitigation banks authorized to serve the watersheds where the proposed impacts are occurring. A total of 0.43 acre of wetland impacts will occur within the Lower James River Watershed (Hydrologic Unit Code [HUC] 02080206) and 0.13 acre will occur within the Lynnhaven-Poquoson Watershed (HUC 02080108). Credit availability letters from mitigation banks serving these watersheds are provided in Appendix E. Wetland impacts from the monopole replacement tower foundations are provided in Table 3.



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Table 2. Wetland Conversion Impacts Table

Impact Location	Impacts Map Sheet Number	Total PFO to PSS Conversion (AC)
SHC1	5/6	0.01
SHC2	6	0.08
SHC3	7	0.31
SHC4	8	0.01
SHC5	15	0.02
SHC6	15	0.09
SHC7	8	0.02
SHC8	20	0.02
Total PFO Conversion		0.56



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Table 3. Non-Tidal Wetland Impacts Table

Impact Number	Tower Number	Impacts Map Sheet Number	Approximate Impact Area (SF)
PU18	2138/47; 285/463	13	10
PU19	2138/49; 58/276	13	10
PU20	2138/50; 58/277	13	10
PU21	2138/51; 58/278	13	10
PU22	2138/52; 58/279	13	10
PU23	2138/53; 58/280	13	10
PU24	2138/54; 58/281	13	10
PU25	2138/55; 58/282	13	10
PU26	2138/60; 58/287	14	10
PU27	2138/61; 58/288	14	10
PU28	2138/62; 58/289	14	10
PU29	2138/63; 58/290	14	10
PU30	2138/95; 292/594	16	10
PU31	2138/96; 292/595	16	10
PU32	2138/99; 292/598	17	10
PU33	2138/108; 292/606	18	10
PU34	2138/109; 292/607	18	10
PU35	2138/114; 292/612	18	10
PU36	2138/133; 292/625	20	10
PU37	2138/134; 292/626	21	10
PU38	2138/135; 292/627	21	10
PU39	2138/136; 292/628	21	10
PU42	2138/65; 58/292	14	10
PU43	2138/69; 58/296	14	10
PU44	2138/73; 58/300	15	10
PU45	209/546	13	10
Total Impacts to Non-Tidal Wetlands			260

The project will cross over 21,932 LF of tidal waters (MLW-MLW), 22,527 LF of tidal waters (MHW – MHW) and 147 LF of waters with drainage areas greater than five square miles, all under the



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jurisdiction of VMRC. The project will also require encroachment over 27,652 SF (0.63 AC) of state-owned subaqueous bottom for tower and fender system construction within the James River. Table 4 below provides the details on each crossing.

Table 4. Aerial Crossings of Subaqueous Bottom Requiring VMRC Authorization

Tidal Waters			
Crossing	Tower Numbers	Crossing Length (LF)	Minimum Vertical Clearance Above MHW (FT)
James River	582/11 – 582/29	21,715 (MLW) 21,715 (MHW)	Tribell Shoal Channel: 201 Secondary Channel: 188 Remainder of River: ≥ 60
Wood Creek	582/33 – 582/34	23 (MLW) 183 (MHW)	70
Skiffes Creek	285/435-285/436	194 (MLW) 629 (MHW)	74
Total Tidal Crossings (LF)		21,932 (MLW) 22,527 (MHW)	
Non-Tidal Waters (drainage area >five square miles)			
Crossing	Tower Numbers	Crossing Length (LF)	Minimum Vertical Clearance Above MHW (FT)
Lee-Hall Reservoir	285/443 – 285/444	49	> 26
Harwood's Mill Reservoir 1	209/5725 – 209/573	49	> 26
Harwood's Mill Reservoir 2	292/590 – 292/591	49	> 26
Total Non-Tidal Crossings (LF)		147	

Wetland Delineation

The entire Surry – Skiffes Creek – Whealton project was previously delineated and confirmed by Mr. Randy Steffey of the U.S. Army Corps of Engineers (NAO 2011-01096, NAO 2012-01096, and NAO



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2013-00451). Fieldwork for the additional areas noted in this letter was conducted by Stantec during July 2015 using the Routine Determination Method as outlined in the 1987 Corps of Engineers Wetland Delineation Manual and methods described in the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). Jurisdictional features identified by Stantec within these areas may be classified as emergent and forested wetlands. Wetland vegetation is typified by sycamore (*Platanus occidentalis*), sweet gum (*Liquidambar styraciflua*), wax myrtle (*Morella cerifera*), soft rush (*Juncus effusus*), and deertongue (*Dichantherium clandestinum*). The transition from wetland to upland is generally identified by a loss of surficial indicators of hydrology and a shift from hydric to non-hydric soils.

The additional delineation identified in 5.10 acre of non-tidal wetlands within the project area. The entire project area contains a total of 71.80 acres of non-tidal wetlands, 1.45 AC of tidal wetlands, 4,477 LF (0.73 AC) of non-tidal stream channel, 420 LF (75.37 AC) of tidal stream channel, and 3,473 LF (1.07 AC) of jurisdictional ditches. A preliminary jurisdictional determination request is being submitted for your review with this modification request (Appendix B). The Delineation Map provided in Appendix B also depicts all previously confirmed wetlands within the project area as well as the revised project areas.

Threatened and Endangered Species

Surveys for SWP have been conducted throughout the various portions of the project area. All searches for SWP within the Surry – Skiffes Creek – Whealton project limits have been coordinated by Kenrick Presgraves of Stantec, who is recognized as a SWP survey contact by the USFWS. Starting in 2012, SWP surveys were conducted within the approved survey window for the region (May 25 – July 15) at the Skiffes Creek Switching Station site as well as along the Skiffes Creek to Whealton 230 kV Transmission Line. Four areas of appropriate habitat were identified in 2012. In 2013, detailed surveys for SWP were conducted along the Surry to Skiffes Creek portion of the project area. Four areas of appropriate habitat were identified within the current project limits. During 2014, Stantec also performed a SWP survey of a portion of the project area known as the BASF Alternative. Two areas of appropriate habitat were identified within the BASF Alternative. According to the USFWS, surveys for SWP are valid for a period of two years. As such, in 2014 Stantec resurveyed the Skiffes Creek Switching Station site and the Skiffes Creek to Whealton 230 kV Transmission Line. Similarly, in 2015, Stantec resurveyed the Surry to Skiffes Creek portion of the



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project area as well as several updated areas, as discussed above. In all, ten areas of appropriate habitat are present within the Surry – Skiffes Creek – Whealton project area. However, no individuals of SWP have been found.

Cultural and Historic Resources

On July 20, 2015, Stantec Consulting Services Inc. (Stantec) conducted a Phase I cultural resources survey of four proposed tower locations associated with the Skiffes Creek to Whealton 230 kV transmission line. These additional towers were located just outside the Area of Potential Effect (APE) for Direct Effect surveyed during the initial surveys. The inclusion of these tower locations in the APE does not create any additional indirect effects or changes to the identification of resources or effects within the Indirect APE. No additional architectural survey was conducted or recommended. Stantec field archaeologists conducted pedestrian survey at all four tower locations. Shovel testing was conducted only for the three proposed new tower locations. Shovel testing was conducted at 50-foot intervals within 100-x-100-foot blocks for single tower locations and 50-foot intervals within 200-x-100-foot blocks for double tower locations. Metal detecting was also conducted for two tower locations. The tower locations investigated included Towers 34/146 and 209/487 (investigated as a single location), Tower 209/546, Tower 292/573, and Tower 2138/127. All four locations were significantly disturbed. The cultural resources survey of four transmission tower locations within the proposed Dominion Skiffes Creek to Whealton 230 kV Transmission Line resulted in the identification of no new isolated archaeological finds or new archaeological sites. The results of the survey will be submitted to DHR for concurrence under a separate cover. No archaeological surveys were conducted for towers 2148/415, 209/549, 285/485, 58/306, or 288/37 as these existing towers will simply require work on the structure to tie into the proposed 203 kV Skiffes Creek – Whealton line. Work will occur on timber mats to avoid ground disturbance in these areas. No further archaeological work is recommended for this project.

Closing

Thank you for your prompt review of the revised information and accompanying materials. If you have any questions or require additional information, please advise me at your earliest convenience.



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Regards,

STANTEC CONSULTING SERVICES INC.

Christine F. Conrad

Christine F. Conrad, PhD
Senior Associate, Environmental Services
Phone: (757) 220-6869
Fax: (757) 229-4507
Christine.conrad@stantec.com

Attachment: Appendix A: Graphics
Appendix B: Wetland Delineation
Appendix C: Small Whorled Pogonia Survey
Appendix D: Joint Permit Application
Appendix E: Credit Availability Letters

Cc: Courtney R. Fisher, Virginia Dominion Power
Larissa Ambrose, Department of Environmental Quality

Appendix D
Joint Permit Application

PLEASE PRINT OR TYPE ALL ANSWERS. If a question does not apply to your project, please print N/A (not applicable) in the space provided. **If additional space is needed, attach extra 8 1/2 x 11 inch sheets of paper.**

<u>CHECK ONE, if applicable:</u>	Pre-Construction Notification (PCN) <input type="checkbox"/>	SPGP <input type="checkbox"/>
	<i>(For Nationwide Permits ONLY)</i>	

1. PROJECT LOCATION INFORMATION
(Attach a copy of a detailed map, such as a USGS topographic map or street map showing the site location and project boundary, so that it may be located for inspection. Include an arrow indicating the north direction.)

Street Address	City/County/Zipcode Surry, James City and York Counties, as well as the Citites of Newport News and Hampton
Subdivision	Lot/Block/Parcel # Skiffes Creek Switching Station: Tax Map 592, DC 01, Lot 2
Name of water body(ies) within project boundaries and drainage area (acres or square miles) James River, Skiffes Creek, Lee-Hall Reservoir & Harwood's Mill Reservoir (DA>5sq mi) Wood Creek, Skiffes Creek, Jones Run, Brick Kiln, Newmarket Creek & Whiteman Swamp (DA<5sq mi)	
Tributary(ies) to: <u>James River, Poquoson River and Back River</u> Basin: <u>James River & Poquoson River</u> Subbasin: <u>Lower James/Lawnes Creek and Lynnhaven-Poquoson Creek</u> <i>(Example: Basin: <u>James River</u> Subbasin: <u>Middle James River</u>)</i>	
Special Standards (based on DEQ Water Quality Standards 9VAC25-260 et seq.): _____	
Project type (check one) <input checked="" type="checkbox"/> Single user (private, non-commercial, residential) <input checked="" type="checkbox"/> Multi-user (community, commercial, industrial, government)	
Latitude and longitude at center of project site: <u>Start at Surry Nuclear Power Station - 37°09'42.48"N 76°41'47.41"W</u> <u>Terminus at Whealton Substation - 37°01'59.39"N 76°25'52.95"W</u>	
USGS topographic map name: <u>Hog Island (1964,1985), Yorktown (1984, 1994), Poquoson West (1983, 1996), Newport News North (1965,1986)</u>	
8- digit USGS Hydrologic Unit Code (HUC) for your project site (See http://cfpub.epa.gov/surf/locate/index.cfm): <u>02080206, 02020208</u> If known, indicate the 10-digit and 12-digit USGS HUCs (see http://dswcapps.dcr.virginia.gov/htdocs/maps/HUExplorer.htm): <u>0208020607, 0208020608, 0208020609, 0208010801</u> <u>020802060704, 020802060802, 020802060901, 020802060901, 020801080102, 020802060906, 020801080103</u>	
Name of your project (Example: <i>Water Creek driveway crossing</i>) <u>Surry - Skiffes Creek - Whealton</u>	
Is there an access road to the project? <input type="checkbox"/> Yes <input type="checkbox"/> No. If yes, check all that apply: <input type="checkbox"/> public <input type="checkbox"/> private <input type="checkbox"/> improved <input type="checkbox"/> unimproved	
Provide driving directions to your site, giving distances from the best and nearest visible landmarks or major intersections: The project may be access from the Surry Nuclear Power Station in Surry County. This is a restricted access installation. Please contact the agent or applicant to schedule a visit. The river crossing may be accessed from the James River. In James City County, the route may be access by Utility Rd. approximately 0.25 miles from Baseline Rd. and from the proposed Switching Station via the Dominion ROW. Follow ROW approximately 0.5 miles until intersection with another Dominion ROW. This is the southwest corner of the proposed Switching Station. The Whealton Substation may be accessed by heading west on RT 258/ Mercury Blvd. Take right on Whealton Rd., then right on Threechopt Rd. Substation approximately 0.3 miles down on left.	
Does your project site cross boundaries of two or more localities (i.e. cities/counties/towns)? <input type="checkbox"/> Yes <input type="checkbox"/> No If so, name those localities: <u>Surry County, James City County, York County, the City of Newport News, and the City of Hampton</u>	

FOR AGENCY USE ONLY

	Notes:
JPA#	

2. APPLICANT, AGENT, PROPERTY OWNER, AND CONTRACTOR INFORMATION

The applicant(s) is/are the legal entity to which the permit may be issued. The applicant(s) can either be the property owner(s) or the person/people/company(ies) that intend(s) to undertake the activity. The agent is the person or company that is representing the applicant(s). If a company, please use the company name that is registered with the State Corporation Commission (SCC), or indicate no registration with the SCC.

Applicant(s) (For a company, use SCC-registered name) Virginia Electric & Power Co. (Dominion) Attn: Courtney R. Fisher			Agent (if applicable) (For a company, use SCC-registered name) Stantec Consulting Services, Inc/Christine Conrad, PhD		
Mailing address 701 E. Cary Street, 12th Floor			Mailing address 5209 Center Street		
City Richmond	State VA	Zip Code 23219	City Williamsburg	State VA	Zip Code 23188
Phone number w/area code (804) 771-6408	Fax		Phone number w/area code (757) 220-6869	Fax (757) 220-4507	
Mobile/pager	E-mail		Mobile/pager	E-mail christine.conrad@stantec.com	
State Corporation Commission ID number (if applicable) 0006317-2			State Corporation Commission ID number (if applicable) F1493189		
<i>Certain permits or permit authorizations may be provided via electronic mail. If the applicant wishes to receive their permit via electronic mail, please provide an e-mail address here: <u>christine.conrad@stantec.com</u></i>					
Property owner(s), if different from applicant (For a company, use SCC-registered name)			Contractor, if known (For a company, use SCC-registered name)		
Mailing address			Mailing address		
City	State	Zip code	City	State	Zip code
Phone number w/area code	Fax		Phone number w/area code	Fax	
Mobile/pager	E-mail		Mobile/pager	E-mail	
State Corporation Commission ID number (if applicable)			State Corporation Commission ID number (if applicable)		

3. PROVIDE A DESCRIPTION OF THE PROJECT, PROJECT PRIMARY AND SECONDARY PURPOSES, PROJECT NEED, INTENDED USE, AND ALTERNATIVES CONSIDERED (Attach additional sheets if necessary)

- The purpose must include any new development or expansion of an existing land use and/or proposed future use of residual land
- Describe the physical alteration of surface waters
- Include a description of alternatives considered to avoid or minimize impacts to surface waters, including wetlands, to the maximum extent practicable. Include factors such as, but not limited to, alternative construction technologies, alternative project layout and design, alternative locations, local land use regulations, and existing infrastructure
- For utility crossings, include both alternative routes and alternative construction methodologies considered
- For major surface water withdrawals, public surface water supply withdrawals, or projects that will alter in-stream flows, include the water supply issues that form the basis of the proposed project.

In order to maintain reliability and keep up with increased demand in the Hampton Roads Area, Dominion proposes to construct a new 7.76 mile 500 kV line from the Surry Nuclear Power Station in Surry County to the proposed Skiffes Creek Switching Station in James City County, including construction of the Switching Station, as well as reconfigure an existing ROW from the proposed Switching Station to the existing Whealton Substation in the City of Hampton to accommodate a new 230 kV line. For this project, 17 structures and a fender system will be placed in the James River requiring encroachment over 27,652 SF of subaqueous bottom. The river structures require pipe pile foundations and will impact 1,536 SF of river bottom, while the pipe pile foundations for the fender system will impact 1,176 SF of river bottom. The placement of 26 structures in wetlands will be required resulting in impacts to 260 SF. The project requires a total of 21,932 LF of aerial crossing of tidal waters (MLW to MLW) as well as 49 LF crossings of both Lee-Hall Reservoir and 2 of Harwood's Mill Reservoir, which have a drainage area greater than 5 sq. miles. All tidal crossings outside the James River will be spanned. Clearing and expansion of the new ROW will result in selective hand clearing of 0.56 AC of Palustrine Forested (PFO) wetlands to Palustrine Scrub-Shrub (PSS) wetlands. Construction access will be provided through existing roads, timber paths and along the existing ROW. See Permit Support Document for further details.

3. PROVIDE A DESCRIPTION OF THE PROJECT (Continued)

Date of proposed commencement of work (MM/DD/YYYY) Pending regulatory approvals (August 2015)_	Date of proposed completion of work (MM/DD/YYYY) _____ June 2017 _____
Are you submitting this application at the direction of any State, local, or Federal agency? ____ Yes <input checked="" type="checkbox"/> No	Has any work commenced or has any portion of the project for which you are seeking a permit been completed? ____ Yes <input checked="" type="checkbox"/> No

If you answered "yes" to either question above, give details stating when the work was completed and/or when it commenced, who performed the work, and which agency (if any) directed you to submit this application. In addition, you will need to clearly differentiate between completed work and proposed work on your project drawings.

N/A

Are you aware of any unresolved violations of environmental law or litigation involving the property? ____ Yes No
(If yes, please explain)

4. PREVIOUS SITE VISITS AND/OR PERMITS RELATED TO THE PROPOSED WORK (Include all Federal, State, and Local pre-application coordination or previous permits)

Agency	Activity	Permit/Project number, and explanation of non-reporting Nationwide permits previously used	Action taken ** and Date of Action	If denied, give reason for denial
Corps	Preliminary JD - 230 kV Line	NAO-2011-01096	7/26/2012	
	Preliminary JD - Switching Station Preliminary JD - 500 kV Line	NAO-2012-01096 NAO-2013-00451	6/13/2013 6/5/2013	

** Issued, denied, site visit

5. PROJECT COSTS

Approximate cost of the entire project, including materials and labor: \$ 155 Million

Approximate cost of only the portion of the project affecting State waters (below mean low water in tidal areas and below ordinary high water mark in nontidal areas): \$ >500,000

6. PUBLIC NOTIFICATION (Attach additional sheets if necessary)

- Complete information for all property owners adjacent to the project site and across the waterway, if the waterway is less than 500 feet in width. If your project is located within a cove, you will need to provide names and mailing addresses for all property owners within the cove.
- If you own the adjacent lot, provide the requested information for the first adjacent parcel beyond your property line.

Property owner's name Please see attached list	Mailing address	City	State	Zip code

Name of newspaper having general circulation in the area of the project: Daily Press
Address and phone number (including area code) of newspaper: 7505 Warwick Blvd., Newport News, VA 23607 (757) 247-4700

Have adjacent property owners been notified with forms in Appendix A? Yes No (attach copies of distributed forms)

7. THREATENED AND ENDANGERED SPECIES INFORMATION

Please provide any information concerning the potential for your project to impact state and/or federally threatened and endangered species (listed or proposed). Attach correspondence from agencies and/or reference materials that address potential impacts, such as database search results or your Corps' waters and wetlands delineation confirmation. Contact information for the Virginia Department of Game and Inland Fisheries and the Virginia Department of Conservation and Recreation, Division of Natural Heritage can be found on page 4 of this package. Please See Modification Letter and Appendix C

8. HISTORIC RESOURCES INFORMATION

Note: Historic properties include but are not limited to archeological sites, battlefields, Civil War earthworks, graveyards, buildings, bridges, canals, etc. Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. Please See Modification Letter

Are any historic properties located within or adjacent to the project site? Yes No Uncertain
If Yes, please provide a map showing the location of the historic property within or adjacent to the project site.

Are there any buildings or structures 50 years old or older located on the project site? Yes No Uncertain
If Yes, please provide a map showing the location of these buildings or structures on the project site.

Is your project located within a historic district? Yes No Uncertain
If Yes, please indicate which district: _____

8. HISTORIC RESOURCES INFORMATION (Continued)

Has a survey to locate archeological sites and/or historic structures been carried out on the property?

Yes No Uncertain

If Yes, please provide the following information: Date of Survey: June 2012/February 2013/July 2012 and September 2014

Name of firm: Cultural Resources, Inc and Stantec

Is there a report on file with the Virginia Department of Historic Resources? Yes No Uncertain

Title of Cultural Resources Management (CRM) report: Phase I Cultural Resource Survey of the Proposed Approximately 20.2-mile Dominion Virginia Power Skiffes Creek to Whealton 230 kV Transmission Line in James City and York Counties, and the Cities of Newport News and Hampton, VA; Phase II Evaluation Site 44JC0662 for Dominion Virginia Power Skiffes Creek Switching Station; Phase I Cultural Resources Survey of the Proposed Dominion Virginia Power Skiffes Creek to Surry 500 kV Transmission Line Alternative and Phase I Cultural Resources Survey of the Proposed BASF Alternative in James City and Surry Counties, Virginia

Was any historic property located? Yes No Uncertain

9. WETLANDS, WATERS, AND DUNES/BEACHES IMPACT INFORMATION

Please See Attached Impacts Table

Report each impact site in a separate column. If needed, attach additional sheets using a similar table format. Please ensure that the associated project drawings clearly depict the location and footprint of each numbered impact site. For dredging, mining, and excavating projects, use Section 18.

	Impact site number 1	Impact site number 2	Impact site number 3
Impact description (use all that apply): F=fill EX=excavation S=Structure T=tidal NT=non-tidal TE=temporary PE=permanent PR=perennial IN=intermittent SB=subaqueous bottom DB=dune/beach IS=hydrologically isolated V=vegetated NV=non-vegetated MC=Mechanized Clearing of PFO (Example: F, NT, PE, V)			
Wetland/waters impact area (square feet)			
Dune/beach impact area (square feet)			
Stream dimensions at impact site (length and average width in linear feet, and area in square feet)			
Volume of fill below Mean High Water or Ordinary High Water (cubic yards)			
Cowardin classification of impacted wetland/water or geomorphological classification of stream Example wetland: PFO; Example stream: wide; bank eroding; braided channel; Example stream: 'C' channel			
Average stream flow at site (flow rate under normal rainfall conditions in cubic feet per second)			
Contributing drainage area (acres or square miles)			

9. WETLANDS/WATERS IMPACT INFORMATION (Continued)

DEQ classification of impacted resource(s): Estuarine Class II Non-tidal waters Class III Mountainous zone waters Class IV Stockable trout waters Class V. Natural trout waters Class VI Wetlands Class VII			
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For DEQ permitting purposes, also submit as part of this section a wetland and waters boundary delineation map⁽⁴⁾ – see the Footnotes section in the form instructions.

For DEQ permitting purposes, also submit as part of this section a written disclosure of all wetlands, open water, or streams that are located within the proposed project or compensation areas that are also under a deed restriction, conservation easement, restrictive covenant, or other land-use protective instrument.

10. APPLICANT, AGENT, OWNER, AND CONTRACTOR CERTIFICATIONS

If the Applicant(s), Agent(s), Owner(s), or Contractor(s) is/are a company, please use the company name(s) that is/are registered with the State Corporation Commission (SCC).

READ ALL OF THE FOLLOWING CAREFULLY BEFORE SIGNING

PRIVACY ACT STATEMENT: The Department of the Army permit program is authorized by Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972. These laws require that individuals obtain permits that authorize structures and work in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters prior to undertaking the activity. Information provided in the Joint Permit Application will be used in the permit review process and is a matter of public record once the application is filed. Disclosure of the requested information is voluntary, but it may not be possible to evaluate the permit application or to issue a permit if the information requested is not provided.

CERTIFICATION: I am hereby applying for permits typically issued by the DEQ, VMRC, U.S. Army Corps of Engineers, and/or Local Wetlands Boards for the activities I have described herein. I agree to allow the duly authorized representatives of any regulatory or advisory agency to enter upon the premises of the project site at reasonable times to inspect and photograph site conditions, both in reviewing a proposal to issue a permit and after permit issuance to determine compliance with the permit.

In addition, 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.

Is/Are the Applicant(s) and Owner(s) the same? Yes No *CRF*

Applicant holds easements

Applicant's name & title (printed or typed) Virginia Electric & Power Company (Dominion Virginia Power)	Second applicant's name & title, if applicable (printed or typed)
Applicant's signature <i>C. Brown</i>	Second applicant's signature
Date <i>7/30/2015</i>	Date
<i>(Required for VMRC permit actions only)</i> Property owner's name, if different from Applicant	<i>(Required for VMRC permit actions only)</i> Second property owner's name, if applicable
Owner's signature, if different from Applicant	Second owner's signature
Date	Date

10. APPLICANT, AGENT, OWNER, AND CONTRACTOR CERTIFICATIONS (Continued)

If the Applicant(s), Agent(s), Owner(s), or Contractor(s) is/are a company, please use the company name(s) that is/are registered with the State Corporation Commission (SCC).

CERTIFICATION OF AUTHORIZATION TO ALLOW AGENT(S) TO ACT ON APPLICANT'S(S)' BEHALF (IF APPLICABLE)

Virginia Electric & Power Company

I (we), _____ (and) _____,
 APPLICANT'S NAME(S) – complete the second blank if more than one Applicant

hereby certify that I (we) have authorized Stantec Consulting Services, Inc. (and) _____
 AGENT'S NAME(S) – complete the second blank if more than one Agent

to act on my (our) behalf and take all actions necessary to the processing, issuance, and acceptance of this permit and any and all standard and special conditions attached. I (we) hereby certify that the information submitted in this application is true and accurate to the best of my (our) knowledge.

Applicant's signature <i>CPG</i>	Second applicant's signature, if applicable
Date 7/30/2015	Date
Agent's signature and title <i>Christine F. Conrad</i>	Second agent's signature and title, if applicable
Date 7/31/2015	Date

CONTRACTOR ACKNOWLEDGEMENT (IF APPLICABLE)

I (we), _____ (and) _____,
 APPLICANT'S NAME(S) – complete the second blank if more than one Applicant

have contracted _____ (and) _____
 CONTRACTOR'S NAME(S) – complete the second blank if more than one Contractor

to perform the work described in this Joint Permit Application, signed and dated _____.

I (we) will read and abide by all conditions as set forth in all Federal, State, and Local permits as required for this project. I (we) understand that failure to follow the conditions of the permits may constitute a violation of applicable Federal, State, and Local statutes and that we will be liable for any civil and/or criminal penalties imposed by these statutes.

In addition, I (we) agree to make available a copy of any permit to any regulatory representative visiting the project site to ensure permit compliance. If I (we) fail to provide the applicable permit upon request, I (we) understand that the representative will have the option of stopping our operation until it has been determined that we have a properly signed and executed permit and are in full compliance with all of the terms and conditions.

Contractor's name or name of firm (printed/typed)	Contractor's or firm's mailing address	
Contractor's signature and title	Contractor's license number	Date
Applicant's signature	Second applicant's signature, if applicable	
Date	Date	



END OF GENERAL INFORMATION

The following sections are activity-specific. Fill out only the sections that apply to your particular project.

20. NONTIDAL STREAM CHANNEL MODIFICATIONS (Continued)

~~Will low-flow channels be maintained in the modified stream channel? Yes No.~~

~~Describe how:~~

~~Will any structure(s) be placed in the stream to create riffles, pools, meanders, etc.? Yes No~~

~~If yes, please explain:~~

21. UTILITY CROSSINGS

Type of crossing overhead trenched directionally-drilled

Method of clearing corridor of vegetation (check all that apply): mechanized land clearing that disturbs the soil surface
 cutting vegetation above the soil surface

Describe the materials to be used in the installation of the utility line (including gravel bedding for trenched installations, bentonite slurries used during direction-drilling, etc.) and a sequence of events to detail how the installation will be accomplished (including methods used for in-stream and dry crossings).

The support structures will be a combination of new single steel pole and galvanized lattice, using different designs that vary in height depending on tower location. All material will be delivered and assembled at each structure location in ROW. Towers have been designed using pipe pile or existing foundations. Please see Permit Support Document for further detail.

For overhead crossings over navigable waterways (including all tidal waterways), please indicate the height of other overhead crossings or bridges over the waterway relative to mean high water, mean low water, or ordinary high water mark:

Please refer to the previously submitted James River Crossing Plan and Profile. Average river minimum vertical clearance is 60 feet. The 230 kV line vertical clearances will be equal to or greater than the existing lines and will be greater than 26 feet.

Nominal system voltage, if project involves power lines: 500 kV and 230 kV

Will there be an excess of excavated material? Yes No

If so, describe the method that will be undertaken to dispose of, and transport, the material to its permanent disposal location and give that location:

Will any excess material be stockpiled in wetlands? Yes No

If so, will the stockpiled material be placed on filter fabric or some other type of impervious surface? Yes No

21. UTILITY CROSSINGS (Continued)

Will permanent access roads be placed through wetlands/streams? ___ Yes No
If yes, will the roads be _____ at grade or _____ above grade (check one)?

Will the utility line through wetlands/waters be continually maintained (e.g. via mowing or herbicide)? Yes ___ No

If maintained, what is the maximum width? _____ 150-250 _____ feet

22. ROAD CROSSINGS

Have you conducted hydraulic studies to verify the adequacy of the culverts? ___ Yes ___ No

If so, please attach a copy of the hydraulic study/report.

Virginia Department of Transportation (VDOT) standards require that the backwater for a 100 year storm not exceed 1 foot for all road, culvert, and bridge projects within FEMA-designated floodplains.

Will the culverts be countersunk below the stream bottom? ___ Yes No. If no, explain: _____

If the project entails a bridged crossing and there are similar crossings in the area, what is the vertical distance above mean high water, mean low water, or ordinary high water mark of those similar structures? _____ feet above _____
For all bridges proposed over navigable waterways (including all tidal water bodies), you will be required to contact the U.S. Coast Guard to determine if a permit is required of their agency.

On separate sheets of paper, describe the materials to be used, the method of construction (including the use of cofferdams), and the sequence of construction events. Include cross sections and profile plans of the culvert crossings including wing walls or rip rap.

23. PRIVATE AND COMMERCIAL AQUACULTURE ACTIVITIES

Please review VMRC regulations related to aquaculture activities if you are completing this section. An abbreviated application is available for certain private oyster gardening activities by a riparian owner. Also, separate information is required by the VMRC Fisheries Management Division for the review of commercial projects that may qualify for the Virginia Marine Resources Commission General Permit #4 FOR TEMPORARY PROTECTIVE ENCLOSURES FOR SHELLFISH. The VMRC aquaculture regulations can be found on the agency web page at: <http://www.mrc.state.va.us/regulations/regindex.shtm>. Please see regulations 4 VAC 20-335-10 et seq., 4 VAC 20-336-10 et seq., and 4 VAC 20-1130-10 et seq.

Briefly describe your proposed aquaculture activity from the time of acquisition (seed, fingerlings, etc.) to time of harvest, and indicate which species you intend to culture. Attach additional sheets if needed.

Source of the animals/plants that you want to culture: _____

Note: VMRC Regulation 4VAC 20-754 et seq. "Pertaining to the Importation of Fish, Shellfish or Crustacea" sets forth the requirements for importing organisms from out of state.

Describe below the number, type, and dimensions of the structures that will be used (e.g., 4' x 2' x 18" floats, 3' x 3' x 1' bottom cages, etc.) and the overall dimensions of the area to be occupied by the aquaculture structures (e.g., two 40-foot by 10-foot bottom plots).

APPENDIX C

Chesapeake Bay Preservation Act Information

Please answer the following questions to determine if your project is subject to the requirements of the Bay Act Regulations:

1. Is your project located within Tidewater Virginia? ____Yes ____No (See map on next page) - If the answer is “no”, the Bay Act requirements do not apply; if “yes”, then please continue to question #2.
2. Please indicate if the project proposes to impact any of the following Resource Protection Area (RPA) features:
____ Tidal wetlands,
____ Nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow,
____ Tidal shores,
____ Other lands considered by the local government to meet the provisions of subsection A of § 9VAC 25-830-80 and to be necessary to protect the quality of state waters (contact the local government for specific information),
____ A buffer area not less than 100 feet in width located adjacent to and landward of the components listed above, and along both sides of any water body with perennial flow.

If the answer to question #1 was “yes” and any of the features listed under question #2 will be impacted, compliance with the Chesapeake Bay Preservation Area Designation and Management Regulations is required. **The Chesapeake Bay Preservation Area Designation and Management Regulations** are enforced through locally adopted ordinances based on the Chesapeake Bay Preservation Act (CBPA) program. Compliance with state and local CBPA requirements mandates the submission of a **Water Quality Impact Assessment (WQIA)** for the review and approval of the local government. Contact the appropriate local government office to determine if a WQIA is required for the proposed activity(ies).

The individual localities, not the DEQ, USACE, or the Local Wetlands Boards, are responsible for enforcing the CBPA requirements and, therefore, local permits for land disturbance are not issued through this JPA process. **Approval of this wetlands permit does not constitute compliance with the CBPA regulations nor does it guarantee that the local government will issue land-disturbing permits for this project.**

Notes for all projects in RPAs

Development, construction, land disturbance, or placement of fill within the RPA features listed above *requires a review from the locality and may require an exception or variance from the local Bay Act program or zoning ordinance.* Please contact the appropriate local government to determine the types of development or land uses that are permitted within RPAs.

Pursuant to § 9VAC 25-830-110, *on-site delineation of the RPA is required for all projects in CBPAs.* Because USGS maps are not always indicative of actual “in-field” conditions, they may not be used to determine the site-specific boundaries of the RPA.

Notes for shoreline erosion control projects in RPAs

Re-establishment of woody vegetation in the buffer may be required to mitigate for the removal or disturbance of buffer vegetation associated with your proposed project. Please contact the local government to determine the mitigation requirements for impacts to the 100-foot RPA buffer.

Pursuant to § 9VAC 25-830-140.5.a(4), § 9VAC 25-830-140.1, and § 9VAC 25-830-130 of the Virginia Administrative Code, the locality will use the information provided in this Appendix and in the project drawings, along with other information in this permit application and a WQIA, to make a determination that:

1. Any proposed shoreline erosion control measure is necessary and consistent with the nature of the erosion occurring on the site, and the measures have employed the “best available technical advice”
2. Indigenous vegetation will be preserved to the maximum extent practicable
3. Proposed land disturbance has been minimized
4. Appropriate mitigation plantings will provide the required water quality functions of the buffer (§ 9VAC 25-830-140.3)
5. The project is consistent with the locality’s comprehensive plan
6. Access to the project will be provided with the minimum disturbance necessary.