

## PMNorthAnna3COLNPEmails Resource

---

**From:** Wanda K Marshall [wanda.k.marshall@dom.com]  
**Sent:** Tuesday, July 12, 2011 2:11 PM  
**To:** Dozier, Tamsen  
**Cc:** Tony Banks; Joyce Livingstone  
**Subject:** COL-0853 Dominion Virginia Power, North Anna Power Station Unit 3 Large Component Transport Route  
**Attachments:** COL-0853 Dominion Virginia Power, NAPS U3 Large Component Transport Route.pdf  
**Importance:** High

Ms. Dozier:

The subject letter is attached for your use. If you have any questions, please call Tony Banks at 804-273-2170.

---

*Wanda K. Marshall*

*Nuclear Project Technical Support  
(804) 273-3273*

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

**Hearing Identifier:** NorthAnna3\_NonPublic\_EX  
**Email Number:** 1109

**Mail Envelope Properties** (744EE1C98A85D74E80A158F95F6BAB0B05097B6D22)

**Subject:** COL-0853 Dominion Virginia Power, North Anna Power Station Unit 3 Large Component Transport Route  
**Sent Date:** 7/12/2011 2:11:16 PM  
**Received Date:** 7/12/2011 2:11:27 PM  
**From:** Wanda K Marshall

**Created By:** wanda.k.marshall@dom.com

**Recipients:**

"Tony Banks" <tony.banks@dom.com>  
Tracking Status: None  
"Joyce Livingstone" <joyce.livingstone@dom.com>  
Tracking Status: None  
"Dozier, Tamsen" <Tamsen.Dozier@nrc.gov>  
Tracking Status: None

**Post Office:** DOM-MBX05.mbu.ad.dominionnet.com

Files	Size	Date & Time
MESSAGE	1034	7/12/2011 2:11:27 PM
COL-0853 Dominion Virginia Power, NAPS U3 Large Component Transport Route.pdf		
1166331		

**Options**

**Priority:** High  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**



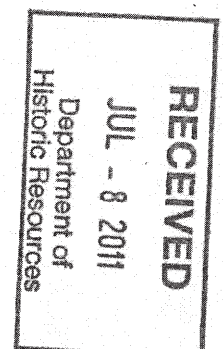
**Dominion®**

**Eugene S. Grecheck**  
Vice President  
Nuclear Development

**Dominion Energy, Inc. • Dominion Generation**  
Innsbrook Technical Center  
5000 Dominion Boulevard, Glen Allen, VA 23060  
Phone: 804-273-2442, Fax: 804-273-3903  
E-mail: Eugene.Grecheck@dom.com

**July 7, 2011**

COL-0853



Mr. Roger Kirchen, Project Review Archaeologist  
Virginia Department of Historic Resources  
Office of Review and Compliance  
2801 Kensington Avenue  
Richmond, VA 23221

**RE: Dominion Virginia Power, North Anna Power Station Unit 3  
Large Component Transport Route  
VDHR File No.: 2000-1210**

Dear Mr. Kirchen:

This letter and submittal are intended as a follow-up to the May 12, 2011 meeting between Dominion and Virginia Department of Historic Resources (DHR) representatives regarding the final results of the terrestrial and underwater archaeological surveys of the Large Component Transport Route (LCTR). The LCTR is intended to support construction of a proposed third nuclear unit at the North Anna Power Station in Louisa County, VA. As part of the LCTR, the former ferry landing just east of the Walkerton Bridge was chosen as the preferred off-load location for the large components planned for North Anna Power Station Unit 3. Two copies of the technical report on the completed surveys prepared by our consultant, The Louis Berger Group, Inc. (LBG) are enclosed.

The results of the surveys are summarized below.

- The terrestrial survey identified three artifact locations along the LCTR, and relocated and expanded the boundaries of previously recorded Site 44KW0081 (Walkerton Landing, aka Enfield Plantation), which has been determined to be eligible for listing in the National Register of Historic Places (National Register).
- An underwater survey, consisting of side-scan sonar investigations, resulted in the identification of possible submerged cultural features (timbers, rocks, and remains of a small boat) that may have been associated either with the Walkerton Ferry or a wharf at Site 44KW0081. The results of these investigations are included in the above-mentioned report.

Since the May 12th meeting, additional underwater investigations were conducted at the Walkerton location. With a permit secured from the Virginia Marine Resources Commission (VMRC), an evaluation of the possible submerged cultural features was conducted in the Mattaponi River by Dolan Research, Inc (DRI). DRI established a 100-foot baseline using

sonar records. Divers used hydraulic jet probes and a hand-held dredge to expose a 5-foot wide trench along the baseline. DRI determined that the timber and rock remains previously identified consist solely of rubble that appears to have been associated with the demolition of the Walkerton Bridge (DHR No. 049-0181) and that it is not associated with a historic wharf or Walkerton Ferry. The target previously thought to be a small boat buried in sediment was actually identified as a piece of siding made with plywood. Based on recommendations by DHR, DRI also used side-scan sonar to examine an area to be used by mooring dolphins during the off-loading of large components. The survey confirmed the presence of numerous former bridge footers and associated fender piles that had been cut off generally 1-to-2 feet above the river bottom. These appear to be pier remnants for the Walkerton Bridge. The demolition of the Walkerton Bridge by the Virginia Department of Transportation had been mitigated previously through the preparation of Historic American Engineering Record report HAER VA-62. Therefore, based on LBG's recommendation, Dominion has concluded that there are no submerged cultural features associated with Site 44KW0081 within the footprint of the proposed cofferdam and dolphin mooring area.

LBG also observed, however, that the intended use of the proposed off-loading site and access road near Walkerton Ferry has the potential to impact the terrestrial portion of Site 44KW0081. Dominion concurs and therefore has developed a Ground Disturbance Plan to ensure that there will be no ground-disturbing activities that would impact the off-loading site or intact near-surface or subsurface cultural deposits that contribute to the National Register eligibility of Site 44KW0081. A copy of the Ground Disturbance Plan is enclosed. Key features of the plan are summarized below:

- The limits of the cofferdam have been decreased from that shown in Addendum III of the Joint Permit Application submitted to VMRC in December 2010 to ensure there are no impacts to Site 44KW0081. Metal sheet piling will be used to frame the proposed cofferdam. The proposed sheet piling will be driven into disturbed sediments that do not contribute to the site's eligibility for inclusion on the National Register. It appears that these disturbed sediments are associated with the demolition of the former Walkerton Bridge.
- An existing access road, formerly the road bed for Route 629, is expected to be used to support the off-loading process and no ground disturbing activities are proposed. The existing access road will also be covered with geo-textile and mats to further prevent impacts to Site 44KW0081. Some tree trimming by hand is anticipated to be required along the access road to accommodate the width of the components and vehicles, but no vegetation is anticipated to be removed in this area. No additional access roads will be required to support the off-loading facility.
- Minor clearing of vegetation will be required along the Mattaponi River to install the shoreline protection. Any vegetation removal along the shoreline would be cut by hand to the ground surface and removed without mechanized clearing or grubbing. Geo-textile is to be installed along the shoreline prior to the placement of riprap to



further protect the site. Following completion of off-loading activities, the cofferdam, shoreline protection, and access road protection will be removed and the area will be restored to its original state. In summary, no ground disturbance is proposed within the limits of Site 44KW0081 as part of the installation, operation, or removal of the off-loading facility.

Dominion will ensure that the requirements of the Ground Disturbance Plan will be implemented through appropriate project specifications and administrative controls.

As a result of the terrestrial and underwater surveys described in the enclosed report, and considering the Ground Disturbance Plan developed to protect cultural deposits at Site 44KW0081, Dominion has concluded that the development and use of the LCTR will have no effect on historic properties. Dominion requests DHR concurrence with this conclusion.

As Dominion has previously indicated, throughout the federal licensing process for the North Anna 3 project, or if there are changes in the design or progress of the project, Dominion will continue to consult with DHR, the U. S. Army Corps of Engineers, and the U. S. Nuclear Regulatory Commission (NRC), as appropriate.

Please note that this letter is being distributed to the NRC to maintain consulting communications. Please contact Tony Banks at 804-273-2170 or [tony.banks@dom.com](mailto:tony.banks@dom.com) or Kim Lanterman at 804-273-3051 or [kimberly.q.lanterman@dom.com](mailto:kimberly.q.lanterman@dom.com) if you have further questions.

Very truly yours,



Eugene S. Greeheck

Enclosures:

- 1) Ground Disturbance Plan, Walkerton Landing (Enfield Plantation – Site 44KW0081), Avoidance and Protection of Terrestrial Cultural Resource Site, Proposed Temporary Large Component Off-Loading Facility
- 2) Terrestrial and Underwater Archaeological Survey of the Proposed Large Component Transport Route, King William, Hanover, and Louisa Counties, Virginia VDHHR NO: 2000-1210, June 2011 (Two copies)

cc: T. S. Dozier, NRC (with Enclosure 1 and Enclosure 2 Report Abstract)

## Enclosure 1

### GROUND DISTURBANCE PLAN WALKERTON LANDING (ENFIELD PLANTATION - SITE 44KW0081) AVOIDANCE AND PROTECTION OF TERRESTRIAL CULTURAL RESOURCE SITE PROPOSED TEMPORARY LARGE COMPONENT OFF-LOADING FACILITY

The former ferry landing just east of the Walkerton Bridge was chosen as the preferred off-load location for the large components planned for the North Anna Power Station Unit 3. The following construction management practices, summarized below, will be used to facilitate the off-load of the components. As illustrated below, no ground disturbance is proposed within Site 44KW0081.

1. A cofferdam will be constructed around the existing wetlands at the shoreline, just west of the wooden pier extending into the Mattaponi River.
2. The area inside the cofferdam will then be pumped dry.
3. Geo-textile will be placed on top of the existing wetlands.
4. Solid fill material will be placed on top of the geo-textile to create the off-load surface.
5. Steel plates and or wooden mats will be placed as required for load spreading.
6. The majority of the cofferdam will be constructed outside of the site boundaries as identified by Louis Berger Group.
7. The existing roadway leading to Walkerton Road can be covered with geo-textile and mats if required.
8. The barge will be fully prepared at a port facility to be determined. The modular transporters that will take the components to the North Anna Power Station Site will be pre-staged on the barge prior to receiving the components from the ship.
9. When the barge arrives, a small hydraulic crane will place steel ramps and wedges between the landing area on the cofferdam and the barge.
10. The transport combination will roll off the barge and onto Walkerton Road for further transport.
11. No widening of existing roads or paths on the Enfield Plantation site will be required.
12. Some tree trimming will be required as the transport combination can be as wide as 28 feet.
13. Any trees cut along the shoreline will be hand cut to ground surface and removed by hand - no mechanical grubbing will take place.
14. There is one electrical line coming across the off-load area at the shore line. This line will need to be raised or temporarily removed and appears to service the nearby boathouse and pumps.
15. No laydown areas will be required.
16. No anticipated ground disturbance outside the limits of the existing road to construct the cofferdam or ramp.
17. Due to lack of proposed ground disturbance, buried utilities are not expected to be an issue.
18. There is no anticipated need for stormwater management basins.
19. When off-load activities are complete, all foreign material introduced to the area will be removed from the area to restore it to its original state.

COL-0853  
Enclosure

## **Enclosure 2**

Terrestrial and Underwater Archaeological Survey  
of the  
Proposed Large Component Transport Route  
King William, Hanover, and Louisa Counties, Virginia  
VDHR NO.: 2000-1210  
June 2011

---

---

TERRESTRIAL AND UNDERWATER  
ARCHAEOLOGICAL SURVEY  
OF THE PROPOSED  
LARGE COMPONENT TRANSPORT ROUTE

King William, Hanover, and Louisa Counties, Virginia

VDHR FILE No.: 2000-1210

*Prepared for:*

DOMINION RESOURCES, INC.  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060  
(804) 273-2170

*Prepared by:*



THE LOUIS BERGER GROUP, INC.  
801 E Main Street, Suite 500  
Richmond, Virginia 23219-3736  
(804) 225-0348

June 2011

---

---



## ABSTRACT

The Louis Berger Group, Inc., Richmond, Virginia, has completed a terrestrial and underwater archaeological survey of the proposed Large Component Transport Route in King William, Hanover, and Louisa counties, Virginia. The archaeological survey was performed on behalf of Dominion Resources Services, Inc., in preparation for a Joint Permit Application, and as part of an environmental assessment for a combined license application for Unit 3 at the North Anna Power Station Early Site Permit site. Approximately 66 miles (106 kilometers) in length, the proposed LCTR begins at the Mattaponi River near the town of Walkerton, and ends at the North Anna Power Station in Louisa County. The project includes several roadway modifications along the route. Most of the proposed modifications are minor, and involve the temporary placement of fill and/or steel plates at sharp corners and narrow passages along the route. The area of potential effects for this archaeological survey, as delineated in consultation with the Virginia Department of Historic Resources, includes six areas where substantial ground disturbing activities are proposed. The APE also includes a submerged impact area associated with the construction of a proposed cofferdam and dolphin mooring area along the south bank of the Mattaponi River. The total acreage covered during the archaeological survey was approximately 4.53 acres (1.83 hectares).

The objectives of the archaeological survey, conducted on April 19-22, May 3, May 20, and May 31-June 2, 2011, were to (1) to document previously recorded cultural resources within the APE; (2) to identify any previously unrecorded archaeological sites within the APE; and (3) to evaluate the potential eligibility of any such sites for listing in the National Register of Historic Places. The survey included both terrestrial and underwater investigations. The terrestrial fieldwork consisted of pedestrian surface survey and subsurface testing, and resulted in the identification of three artifact locations (AL4381-04, AL4381-05, and AL4381-06) and the relocation and boundary expansion of previously recorded Site 44KW0081. The initial underwater fieldwork consisted of side scan sonar investigations and diving operations, and resulted in the identification of possible submerged cultural features including notched timbers and rock features either associated either with the early eighteenth- to early twentieth-century Walkerton Ferry or with the historic component at Site 44KW0081, and a possible small boat. Following the issuance of an underwater excavation permit by the Virginia Marine Resources Commission (Permit No. 11-0753), an evaluation of the possible submerged cultural features was conducted. The subsequent underwater fieldwork consisted of additional side scan sonar investigations and the excavation of an exploratory trench using hydraulic jet probes and a hand-held dredge. These investigations determined that the timber and rock remains previously identified consist solely of rubble associated with the demolition of the Walkerton Bridge (DHR No. 049-0181) and not associated with Walkerton Ferry or a historic wharf. The small boat was determined to be a piece of siding.

Site 44KW0081 is a multi-component site containing prehistoric occupations spanning the Middle Archaic to Late Woodland periods. Eighteenth- and nineteenth-century historic occupations of the Enfield Plantation (DHR No. 050-0023) were identified as well. The site was determined to be eligible for inclusion in the National Register by the DHR in 1993, and portions of the site outside the present area of potential effects were excavated in 1994 to mitigate the adverse effects associated with the Route 629 bridge replacement (Pullins et al. 1996). The present investigations documented stratified and seemingly intact prehistoric and historic deposits within the current area of potential effects, and expanded the boundaries of the site. The unexcavated portions of Site 44KW0081 have potential to provide important information regarding the domestic theme from the Middle Archaic through Late Woodland periods, and the domestic, subsistence/agriculture, and possibly commerce/trade themes from the Settlement to Society (1607 to 1750) to the Reconstruction and Growth (1865 to 1917) periods in the Upper Coastal Plain of Virginia. LBG concurs with the DHR National Register eligibility recommendation for Site 44KW0081, and recommends an expansion of the site boundary in accordance with the results of the present investigation. LBG recommends that there are no submerged cultural features associated with Site 44KW0081 within the footprint of the proposed cofferdam and dolphin mooring area.