

ATTACHMENT 1

CULTURAL RESOURCES ASSESSMENT, SURRY POWER STATION

MARCH 2001

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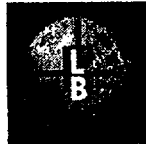
# **CULTURAL RESOURCE ASSESSMENT SURRY POWER STATION**

**Surry County, Virginia**

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## ABSTRACT

The Louis Berger Group, Inc., has completed a cultural resource assessment of the Surry Power Station and vicinity, Surry County, Virginia, on behalf of Dominion Resources, Inc. (Dominion). Dominion is preparing to submit an application for renewal of the Surry Power Station's operating license to the United States Nuclear Regulatory Commission. The cultural resource assessment involved: (1) thorough background research to compile existing information about the vicinity of the power station; (2) a field inspection of the power station site; and (3) delineation of areas within the power station property with respect to potential archaeological resources as No Potential, Low Potential, and Moderate-to-High Potential.

Berger identified one previously recorded archaeological site (44SY2) on the western end of the Surry Power Station property. If ground-disturbing activities are planned in the area of this site, it may be necessary to further evaluate the site in order to determine if it is eligible for inclusion in the National Register of Historic Places.

All areas of the power station property were classified according to three categories based on their potential for archaeological resources. The No Potential classification was given to the majority of the southern, eastern, and central portion of the power station property that was highly disturbed by the construction of the power station. The Low Potential classification includes (1) three areas, surrounded by the No Potential area, that may not have been disturbed, and (2) areas along the northern portion of the power station property that are currently wetlands. The Moderate-to-High Potential classification includes (1) the western end of the power station property, west of Route 650, and (2) the ridges and terraces overlooking Hog Island Creek in the northern portion of the power station property.

No further archaeological investigations are recommended for the No Potential areas of the power station property. Areas classified as Low Potential and Moderate-to-High Potential would be appropriate for subsurface investigations to identify any possible cultural resources. While these areas all have the potential for archaeological resources, areas classified as Moderate-to-High Potential are more likely to include resources with National Register significance.

Furthermore, should archaeological resources or artifacts be encountered on any portion of the power station property during the course of normal power station activities, employees should be instructed to note the location of the resource and report the discovery to those in charge of the power station property. The discovery then can be evaluated.

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## I. INTRODUCTION

The Louis Berger Group, Inc., has completed a cultural resource assessment of the Surry Power Station and vicinity, Surry County, Virginia, on behalf of Dominion Resources, Inc. (Dominion). Dominion is preparing to submit an application for renewal of the Surry Power Station's operating license to the United States Nuclear Regulatory Commission (NRC). The cultural resource assessment involved: (1) thorough background research to compile existing information about the vicinity of the power station; (2) a field inspection of the power station site; and (3) delineation of areas within the power station property with respect to potential archaeological resources as No Potential, Low Potential, and Moderate-to-High Potential.

The cultural resource assessment was conducted pursuant to the National Historic Preservation Act of 1966 (as amended through 1992), the Archaeological and Historical Preservation Act of 1974, Executive Order 11593, and Title 36 of the Code of Federal Regulations, Parts 660-66 and 800 (as appropriate). The field investigations and technical report meet the qualifications specified in the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (*Federal Register* 48:190:44716-44742). The Project Manager and Project Archaeologist who performed the cultural resource investigations met or exceeded the qualifications described in the Secretary of the Interior's Professional Qualifications Standards (*Federal Register* 48:44738-44739) (United States Department of the Interior 1983).

This report has been organized into six chapters. Chapter II presents the prehistoric and historic cultural contexts for the vicinity of the power station property. Chapter III summarizes the results of a Virginia Department of Historic Resources (VDHR) file inventory search and a review of historical maps of the vicinity of the power station property. Based on this background research, Chapter IV presents a predictive model for potential archaeological resources on the power station property. Chapter V discusses how this predictive model can be applied in the management of cultural resources and in planning future site development of the power station property. Chapter VI provides a list of the references cited in this report.

The cultural resource assessment was conducted between February 15 and March 2, 2001. Dr. Kay Simpson served as Project Manager. Dr. Todd Ahlman served as Project Archaeologist. Field Supervisor John Mullin authored the report. Suzanne Szanto provided editorial assistance, and Jacqueline Horsford prepared the graphics used in the report.

## II. CULTURAL CONTEXTS

### A. INTRODUCTION

In order to understand the cultural context of the Surry Power Station property, Berger performed a review of pertinent literature relative to the prehistoric and historical background of the general area. This discussion of the cultural contexts follows the general outline of time periods presented by the VDHR in *How to Use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects* (VDHR 1992).

The general prehistoric occupation of Virginia has been divided into three periods: the Paleoindian period (circa 10,000 to 8000 BC), the Archaic period (circa 8000 to 1000 BC), and the Woodland period (circa 1000 BC to AD 1600). The historic period in Virginia has been divided into eight subperiods: Settlement to Society (1607 to 1750), Colony to Nation (1750 to 1789), Early National Period (1789 to 1830), Antebellum Period (1830 to 1860), Civil War (1861 to 1865), Reconstruction and Growth (1865 to 1917), World War I to World War II (1917 to 1945), and The New Dominion (1945 to present).

### B. PREHISTORIC CONTEXT

#### 1. Paleoindian Period (circa 10,000 to 8000 BC)

The environment during the Paleoindian period was markedly different from that of today. Temperatures were cooler, causing large amounts of seawater to become trapped in vast glaciers that covered the northern part of the continent. Consequently, water levels in the southern portion of the continent were lower, leaving much of the continental shelf off of Virginia exposed (Edwards and Merrill 1977). During this period, subsistence and settlement patterns were based on hunting and foraging. The native peoples were organized in small, mobile bands, involved in an economy primarily based on the hunting of megafauna, caribou, deer, and elk (Boyd 1989; Kelly and Todd 1988; Meltzer 1988; Smith 1986). In addition to hunting, these peoples would have been involved in foraging and fishing. Because of the focus on hunting, however, the archaeological remains of the activities of Paleoindian-period peoples indicate that they tended to establish short-term habitation sites and other limited-activity sites (such as short-term lithic workshop sites). These sites were primarily located in lowland areas near water sources (Custer 1990), areas in southeastern Virginia that are, today, underwater or predominantly wetlands. The primary diagnostic artifact from the Paleoindian period is the Clovis projectile point. Other projectile point types from this period include Cumberland, Quad, Dalton, and Hardaway.

#### 2. Archaic Period (circa 8000 to 1000 BC)

The Archaic period is generally defined by a change in subsistence and settlement patterns based on major environmental changes. As the glaciers in the north began to melt, sea levels began to rise. Rising water levels throughout the continent led to a larger exploitable environment. These changing environmental conditions led to the disappearance of the megafauna common to the Paleoindian period. Consequently, the Archaic period demonstrates a shift from an economy based on foraging and the hunting of large game to a more sedentary economy, beginning to focus on the exploitation of rivers and use of the earliest forms of domesticated plants (Egloff and McAvoy 1990). To better define the Archaic period, it is further subdivided into three subperiods: Early Archaic, Middle Archaic, and Late Archaic.

During the Early Archaic subperiod, environmental conditions were similar to those of the Paleoindian period. In the Virginia Coastal Plain, freshwater wetlands continued to be the focus of settlement patterns. Activity sites were still occupied on a seasonal basis (Hantman 1990). It was during this period that hunting

patterns began to adapt to changing environmental conditions with an increased dependence on smaller game. This change is seen in the use of smaller projectile points, such as the Palmer and Kirk projectile point types (Broyles 1971).

The Middle Archaic subperiod marks the end of the major climatic changes affecting the environment. The climate had become warm and dry, leading to widespread population movements (Delcourt and Delcourt 1987; Stoltman and Baerreis 1983). By this time, subsistence patterns had led to an increasingly sedentary way of life. A larger variety of projectile points, including Stanly, Morrow Mountain, Guilford, and Halifax types, came into use. Atlatl weights and other groundstone implements found at sites of this period demonstrate the use of increasingly complex tools. On Middle Archaic sites, the presence of storage pits, middens, and large amounts of fire-cracked rock (Smith 1986; Steponaitis 1986), as well as increasing numbers of human burials (Lewis and Lewis 1961), further documents the growing sedentary nature of this subperiod.

The Late Archaic is primarily identified by the introduction of cultivars. Cultivars are early forms of domesticated plants that are capable of producing more fruit when tended by humans. Unlike later domesticated plants (i.e., cultigens), cultivars are capable of propagating without human assistance. During the Late Archaic, interregional patterns of exchange began to develop (Smith 1986; Steponaitis 1986). Diagnostically, this subperiod is marked by an increase in artifact types. These artifacts include steatite vessels, Savannah River projectile points, and groundstone implements, such as mortars, netsinkers, atlatl weights, and grooved axes (Stoltman 1972; Ward 1983). These artifacts document an increasing emphasis on fishing and early agriculture (Klein and Klatka 1991). This subsistence base was focused on the use of longer term habitation sites and the location of base camps along waterways. In addition, seasonal procurement camps were located on interior ridges.

### *3. Woodland Period (circa 1000 BC to AD 1600)*

The Woodland period is primarily defined by the development of ceramics. It is during the Woodland period that the bow and arrow first came into use. This period is further marked by a shift from seasonal occupations to longer term, sedentary, habitations. These longer periods of site occupation were due to a shift to an agricultural economy that included the development of cultigens. During the Woodland period, the growing dependence on agriculture led to the development of increasingly complex systems of politics and trade. The Woodland period is subdivided into three subperiods: Early Woodland, Middle Woodland, and Late Woodland.

The Early Woodland was very similar to the Late Archaic, with Early Woodland sites located in the same types of riverine locations as Late Archaic sites (Ayers 1972; Stewart 1980). The two subperiods are primarily differentiated by their artifact assemblages. Steatite-tempered Marcey Creek ceramic wares and sand- and grit-tempered Acookeek ceramic wares are defining characteristics of Early Woodland sites. In addition, large triangular projectile points dominate the tool assemblage of the Early Woodland. In southeastern Virginia, North Landing stemmed lobed projectile points and North Landing ovate projectile points are particularly common in the area of the Dismal Swamp (Mouer et al. 1981).

The Middle Woodland subsistence and settlement patterns were based on the occupation of large, sedentary base camps. The base camps were located in river valleys, and with the additional resources that were supplied by other small, limited activity sites, were capable of supporting large groups of people year-round in one location. Expanding emphasis on sedentary habitations is revealed by the archaeologically recovered remains of this subperiod. Ceramics from the Middle Woodland are generally tempered with crushed quartz and cordmarked or fabric-impressed on the exterior. These ceramics include Stony Creek and Mockley wares. The development of the bow and arrow is documented by evidence of the increasing use of small, triangular projectile points. Houses and other structures are definable through the identification of postholes

and storage pits. Flexed and extended burials are common during the Middle Woodland, and there is an increased emphasis on grave goods.

In southeastern Virginia, the Late Woodland is defined by the use of permanent and semipermanent villages. These advanced habitation sites are in part related to political and cultural developments of the late Middle Woodland. During this time Virginia appears to have been occupied by western Siouan groups and eastern Algonquin groups. The division between these groups was roughly equivalent to the division between the Piedmont and Coastal Plain regions of Virginia. As a result of this division, local groups appear to have become increasingly involved in complex economies of trade. This, in part, led to the development of permanent villages. These villages were located along waterways and were supplemented by short-term procurement sites located further inland. Archaeological evidence demonstrates that these villages were much more developed than the base camps of the Middle Woodland. The remains of Late Woodland villages demonstrate the use of more complex housing types, such as long-houses, and defensive structures, such as palisades. Subsistence patterns in the Late Woodland were based on agriculture, hunting, gathering, and intergroup trade. Artifact assemblages from the Late Woodland suggest that villages were organized into redistributive chiefdom-level societies (Rountree 1989). The artifacts in these assemblages demonstrate the continuing use and development of ornate ceramics and small triangular projectile points. Another artifact of interest that is found on Late Woodland sites is the tobacco pipe. Evidence of the development of highly complex social organizations is demonstrated by the palisaded villages and the burial of human remains in ossuaries.

The end of the Late Woodland is often referred to as the Protohistoric period. This period, which roughly includes the years AD 1500 to 1675, is primarily identified by the added presence of European trade goods. An increase in trade networks led to the inclusion of additional Native American ceramics, such as Gaston and Roanoke types (Egloff and Potter 1982). It was during the Protohistoric period that the Algonquian-speaking Powhatan chiefdom became the dominant social organization in the Lower James River area (Rountree 1989). Some Powhatan settlements in southeastern Virginia are noted on the John Smith map of 1612. These settlements are located on the same types of riverine locations as the villages of the earlier part of the Late Woodland.

### C. HISTORIC CONTEXT

In order to prepare a discussion of the historical context of the vicinity of the Surry Power Station, a review of relevant literature was conducted. The historical background of the area is discussed within the framework of the historical time periods defined by the VDHR.

#### *1. Settlement to Society (1607 to 1750)*

The northeastern portion of present-day Surry County was an early focus of colonial development in Virginia owing to its proximity to Jamestown Island. In 1608 the first English settlement at Hog Island was established by settlers from Jamestown (Bohannon 1927). The principal purpose of the settlement at Hog Island was for use of the island as a natural pen for the colony's hogs. In addition, a blockhouse was established on Hog Island to provide Jamestown Island with further security against the Spanish. While the island's use for raising hogs continued in subsequent years, the military value of the island was not very great and the garrison was moved to the northern side of the James River (Kornwolf 1977).

In 1619 two patents were issued for Hog Island, giving the western portion of the island to one Captain Ralph Hamer and the eastern portion of the island to a John Bailey (Kornwolf 1977). There is little mention of the developments that occurred on the island during these early years of the seventeenth century. However, Captain Hamer reported in 1624 that he had lost much of his plantation on Hog Island to the massacre of

1622 (Kornwolf 1977). In 1643, Randall Holt, through marriage, came to own the entire island (Kornwolf 1977). The Holt family continued to own the island until the early nineteenth century.

In the early eighteenth century, the Holts were granted a license to operate a ferry between Jamestown Island and Hog Island. The agreement under which they operated the ferry required them to maintain the bridge that connected Hog Island with the mainland to the south. Although this ferry concession appears to have been financially successful, the Holts failed to maintain the bridge. After 1748 there is no reference to the Holts' obtaining a new license for ferry operation (William and Mary Center for Archaeological Research [WMCAR] 1994).

The land to the south of Hog Island, between Chippokes Creek and Lawne's Creek, was settled not long after the settlement of Hog Island. Early references to this area call it Hog Island "Maine," to distinguish it from Hog Island proper (Kornwolf 1977). In 1619 this area was patented by Captain Christopher Lawne. In that same year, a settlement called Lawne's Hundred was established on Lawne's Creek. The settlement was not successful, and within a year it had been abandoned (Kornwolf 1977). From 1620 to 1632 there is little reference to Hog Island "Maine" and no successful developments appear to have been established in the area. This may have been due, in part, to the aftermath of the massacre of 1622, when settlers were wary of establishing settlements too distant from one another. Between 1632 and 1638, however, a number of patents were issued for Hog Island "Maine," and as a result the entire area came into the possession of a William Spencer by 1637 (Kornwolf 1977). Spencer does not appear to have been much more successful in establishing a settlement than his predecessors had been. With his death in 1656, Spencer's plantation was repatented to a William Cockerham (Kornwolf 1977). In 1662, the land then passed to a Major William Caulfield (Kornwolf 1977). Caulfield expanded his landholdings and became a prominent resident of Surry County, serving as Burgess in 1676. Caulfield reported that as a result of Bacon's Rebellion (1676), he had suffered losses of 500 pounds sterling (Kornwolf 1977). This amount would suggest that his house and belongings rivaled those of Arthur Allen, who was then owner of the house now known as Bacon's Castle. Caulfield died in 1691 leaving the land to his widow and his nephew (Kornwolf 1977). After that point little more is recorded regarding the development of Hog Island "Maine."

Although there is little documentary evidence regarding the structures that existed on Hog Island and Hog Island "Maine," it is noted that several plantations had been established in both locations (Kornwolf 1977; Stephenson 1942). In addition, the original site of the Lawne's Creek Parish Church is reported to have been located near Hog Island on the mainland. The first Lawne's Creek Parish Church stood from circa 1628 to 1650. This church is believed to have been located "on a hill overlooking the James, near Hog Island Creek, and west of a road leading to Hog Island" (Bohannon 1927). Lawne's Creek Parish Church was the first church established in Surry County. A second church replaced the first church in 1650 and remained in use until around 1695 (Kornwolf 1977). At that time a third church was established near Bacon's Castle. On January 13, 1673, Lawne's Creek Parish Church was the site of a protest against what were considered to be unjust taxes (Boddie 1948). While the sites of the first two churches remain unknown, the ruins of the third church are still extant.

## *2. Colony to Nation (1750 to 1789)*

During the period from 1750 to 1789, the Holts moved from Hog Island to the mainland, where, in about 1782, they built a two-story dwelling, kitchen, stable, blacksmith shop, shed, and two frame houses (WMCAR 1994). By this time many of the buildings on the island had reportedly fallen into disrepair, had been abandoned, and were lost. In the events leading up to the battle of Yorktown, which took place in the fall of 1781, the Americans crossed the James River at Hog Island in pursuit of the British forces. The island was then used as a commissary depot by the French and American forces during the siege of Yorktown. Cattle and other food supplies were brought to Hog Island to supply the troops involved in the siege (WMCAR 1994).

### 3. *Early National Period (1789 to 1830)*

In the early nineteenth century Hog Island was owned by a Thomas Wilson. The first land tax records for the area began in 1820, and in 1821 there were no taxable buildings located on Hog Island or the adjacent mainland (WMCAR 1994). Wilson's land was sold under order of the Williamsburg District Chancery Court in the late 1820s (WMCAR 1994). The land was purchased by three men, named Robertson, French, and McFarland, who subsequently, in 1830, partitioned the land among themselves.

### 4. *Antebellum Period (1830 to 1860)*

Little information is available about the Hog Island area during the antebellum period. For Hog Island itself, it is noted in the tax records that several improvements (totaling \$1,075) had been made to the Robertson portion of the island (WMCAR 1994).

### 5. *Civil War (1861 to 1865)*

During the Civil War, Hog Island and the mainland immediately south were reported to be forested, with little development. On the mainland, only the property of Nicholas Savage is known to have had any structures standing at this time (Gilmer 1863). However, during the Civil War, the Confederate military was operating a signal station on Hog Island (Bohannon 1927). It is uncertain where this station was located, what types of structures were involved, or how many men were stationed on the island.

### 6. *Reconstruction and Growth (1865 to 1917)*

Hog Island's owner at this time was a Mr. Barney. Barney established a residence called Homewood on the northern portion of Hog Island, at the end of Hog Island Road (Kornwolf 1977). Originally consisting only of Barney's small house, Homewood came to represent a growing development, which eventually became a postal town. There is currently only one structure extant that is believed to date to the original Homewood residence. It is a brick smokehouse that stands just west of the northern end of Route 650. From 1895 to 1933 all of Hog Island fell under the ownership of Allen Gray (Kornwolf 1977).

### 7. *World War I to World War II (1917 to 1945)*

From the time of World War I to the present very little additional development is noted in the Hog Island area. In 1933 a portion of Hog Island was purchased by the Newport News Yacht club (Kornwolf 1977). The purchase was most likely in the vicinity of Homewood.

### 8. *The New Dominion (1945 to present)*

After World War II, Hog Island became a wildlife refuge under the jurisdiction of the Commonwealth of Virginia. Originally known as the Hog Island Waterfowl Refuge, it is currently called the Hog Island Wildlife Management Area (WMA). The WMA now includes all of Hog Island plus two additional tracts south of the Surry Power Station property.

The most notable development to occur in the Hog Island area, after World War II, was the construction of the Surry Power Station. Construction of the power station began in the late 1960s. By the end of 1972 the Surry Unit One Reactor was in commercial operation.

### III. RESULTS OF BACKGROUND RESEARCH

#### A. INTRODUCTION

Background research was undertaken as part of the present study to ascertain what cultural resources are located within the Surry Power Station property and to assess the potential for cultural resources within the property. This research primarily involved (1) a review of the archaeological and architectural file inventories at the VDHR in Richmond, and (2) a review of historical maps that depict the vicinity of the current power station property.

#### B. REVIEW OF VDHR SITE FILE INVENTORY

Five previously recorded archaeological sites and one archaeological location, a lithic scatter that was observed but not officially recorded as an archaeological site (Area 1), are within a 1.6-kilometer (1-mile) radius of the Surry Power Station property; three other previously recorded sites are located to the north of the power station property, on Hog Island, and are outside of the 1.6-kilometer (1-mile) radius (Figure 1). One of the sites (44SY2) is within the boundaries of the power station property. Five of the previously recorded sites are historic and three have both prehistoric and historic components.

Two of the previously recorded archaeological sites are also recorded at VDHR as architectural resources. No other architectural resources were identified within a 1.6-kilometer (1-mile) radius of the power station property, although additional architectural resources were identified in the northern portion of Hog Island (see Figure 1).

##### *1. Prehistoric Archaeological Resources*

Three of the sites with prehistoric components, including the location designated as Area 1, are within 1.6 kilometers (1 mile) of the Surry Power Station property. One of these components is indeterminate (Site 44SY159), one is a base camp (Site 44SY212), and one is lithic scatter (Area 1) (see Figure 1; Table 1). One prehistoric habitation site (44SY114) is located in the northern portion of Hog Island, more than 1.6 kilometers (1 mile) from the power station property (see Figure 1). Only two of the prehistoric sites in the vicinity of the power station contained artifacts that could be assigned to a specific chronological period: Site 44SY114 yielded artifacts spanning the Archaic, Woodland, and Protohistoric periods (see WMCAR 1994); and Site 44SY212 yielded artifacts from the Middle Woodland period. Historic components are also present at Sites 44SY114, 44SY159, and 44SY212, as described below.

##### *2. Historic Archaeological Resources*

Five previously recorded historic period archaeological sites are within a 1.6-kilometer (1-mile) radius of the Surry Power Station property and three previously recorded historic period archaeological sites are located on Hog Island (see Figure 1), outside of the 1.6-kilometer (1-mile) radius of the Surry Power Station property. The sites within the 1.6-kilometer (1-mile) radius consist of one domestic site of unknown age (Site 44SY2), which is situated within the power station property; one brick kiln of unknown age (Site 44SY3); one kiln of unknown age (Site 44SY138); one indeterminate "Colonial" site (44SY159); and one domestic site dating to the seventeenth-century (44SY212) (see Table 1). The three sites on Hog Island are all domestic sites: Site 44SY114, dating from the seventeenth to the nineteenth centuries (see WMCAR 1994); Site 44SY213, dating to the seventeenth to eighteenth centuries; and Site 44SY218, dating to the seventeenth century. Sites 44SY114, 44SY159, and 44SY212 also contain prehistoric components, as described above.

TABLE 1

## PREVIOUSLY RECORDED ARCHAEOLOGICAL RESOURCES IN THE VICINITY OF THE SURRY POWER STATION

SITE No.	WITHIN 1.6 k	SITE TYPE	TEMPORAL AFFILIATION	SIZE (N/S x E/W)	ARTIFACTS/FEATURES	UTM ZONE	UTM NORTHING	UTM EASTING
Area 1	Yes	Lithic scatter	Unknown prehistoric	800m x 20m (2,625' x 66')	Uncollected "thin scattering of chips and flakes along beach" (see 44SY159, VDHR site file)	18	4115800	349470
44SY2 (90-26)	Yes	Domestic site	Unknown historic	45m x 45m (148' x 148')	Handmade bricks and shell mortar/ Cellar hole (4' deep)	18	4114880	349040
44SY3 (90-27)	Yes	Brick kiln	Unknown historic	15m x 15m (50' x 50')	Uncollected brick pile	18	4113800	348870
44SY114	No	<i>Prehistoric</i> - Habitation/ <i>Historic</i> - Domestic site	Archaic-Woodland- Protohistoric/ 17 <sup>th</sup> - to 19 <sup>th</sup> -Century	Not listed	<i>Prehistoric</i> - Archaic stemmed hafted bifaces, Woodland small triangular hafted biface, fire-cracked rock, debitage, ceramic sherds, and cobbles/ Small pits with ash fill <i>Historic</i> - Around 600 artifacts, including wrought nails, unidentified metal items, creamware, white salt-glazed stoneware, wine bottle glass, kaolin pipe fragments, American stoneware, solarized glass, window glass, brick, and whiteware/ Pier, cellar, postholes, brick cistern, and well	18	4117400	349800
44SY138	Yes	Kiln site	Unknown historic	Not listed	Not listed	18	4113980	348760
44SY159	Yes	Unknown	Unknown prehistoric/ Indeterminate historic "Colonial"	350m x 50m (1,148' x 164')	No artifacts listed	18	4115600	352040
44SY212	Yes	<i>Prehistoric</i> - Base camp/ <i>Historic</i> - Domestic site	Middle Woodland/ 17 <sup>th</sup> -Century	160m x 160m (525' x 525')	<i>Prehistoric</i> - Fire-cracked rock (uncollected), debitage (uncollected), grit-tempered ceramic sherds (Varina ware), and shell-tempered ceramic sherds (Mockley? ware) <i>Historic</i> - Brick fragments (uncollected) and kaolin pipestems	18	4111520	350980
44SY213	No	Historic domestic site	17 <sup>th</sup> - to 18 <sup>th</sup> -Century	Unknown	Dark green bottle glass, kaolin pipestem, and uncollected brick fragments	18	4117040	349780
44SY218	No	Historic domestic site	17 <sup>th</sup> -Century	30m x 30m (98' x 98')	18 <sup>th</sup> -century English stoneware sherds, 19 <sup>th</sup> -century American stoneware sherds, 17 <sup>th</sup> -/18 <sup>th</sup> -century coarse earthenware sherds, North Devon gravel-tempered sherds, kaolin pipestem fragments, kaolin pipe bowl fragments, and English flints	18	4116760	349950

TABLE 2

**PREVIOUSLY RECORDED ARCHITECTURAL RESOURCES  
IN THE VICINITY OF THE SURRY POWER STATION**

VDHR INVENTORY No.	WITHIN 1.6 k	ADDRESS/LOCATION	DESCRIPTION	NATIONAL REGISTER RECOMMENDATION
90-26 (44SY2)	Yes	Lawne's Creek Church Site/West side of Route 650	House site that was previously believed to be the site of a former parish church	No determination of eligibility
90-27 (44SY3)	Yes	Heite Kiln Site/West side of Route 650	Site of former kiln	No determination of eligibility
90-52	No	Homewood Smokehouse/ Route 617	Two-room, one-story brick smokehouse. Associated with 19th-century house called Homewood	No determination of eligibility
90-121-1	No	Hog Island Residence/ North end of Route 650	Modern concrete block house	N/A
90-121-2	No	Hog Island "Mushroom" Office/ North end of Route 650	1970s Two-story office/ residence. Brick 1 <sup>st</sup> floor with frame 2 <sup>nd</sup> floor. Not historic	N/A
90-121-3	No	Hog Island Open Shed and Shop/ North end of Route 650	12 bay, sheet metal shed	No determination of eligibility
90-121-4	No	Hog Island Shed #1/ North end of Route 650	Wood frame shed. Demolished	N/A
90-121-5	No	Hog Island Shed #2/ North end of Route 650	Wood frame shed. Demolished	N/A
90-121-6	No	Hog Island Shed #3/ North end of Route 650	Wood frame shed. Demolished	N/A
90-121-7	No	Hog Island Seed Shed/ North end of Route 650	Wood frame shed with asbestos tile in "fish scale" pattern	No determination of eligibility

### 3. Architectural Resources

Two architectural resources that are also listed as archaeological sites are located within a 1.6-kilometer (1-mile) radius of the power station property (see Figure 1). VDHR Inventory No. 90-26 was the presumed site of the Lawne's Creek Parish Church until archaeological investigations proved that it is in fact a domestic site (44SY2) of unknown age (Table 2). VDHR Inventory No. 90-27 is the kiln site identified as Site 44SY3.

Several additional architectural resources were identified on Hog Island, outside the 1.6-kilometer (1-mile) radius of the power station property. These resources include seven recent structures on the northern end of Hog Island (VDHR Inventory Nos. 90-121-1 to 90-121-7), in the area of Homewood. None of these structures appear to be eligible for inclusion in the National Register of Historic Places. During a field survey conducted on February 27, 2001, it was noted that three sheds (VDHR Inventory Nos. 90-121-4 to 90-121-6) are no longer extant. One additional building is located in the area of Homewood (VDHR Inventory No. 90-52). This structure is a brick smokehouse associated with the original Homewood

residence (Plate 1). It appears to be the only extant structure on Hog Island that may be potentially eligible for inclusion in the National Register.

### C. REVIEW OF HISTORICAL MAPS

A review of historical maps depicting the general area around the Surry Power Station suggests that no extensive historical development (such as a town) has been located within a 1.6-kilometer (1-mile) radius of the power station property. However, the postal town of Homewood was located further to the north of the power station property, on Hog Island.

Although Hog Island and its general vicinity are included on numerous maps, beginning as early as John Smith's map of 1612, the first map to provide a detailed depiction of the vicinity of the power station property is John Gilmer's 1863 *Map of Surry, Sussex, and Southampton Counties* (Figure 2). The Gilmer map shows two roads crossing what is currently the power station property: (1) Hog Island Road (with a bridge connecting Hog Island and the mainland), and (2) a small road on the mainland that runs northeast from Hog Island Road to the James River, ending just southeast of Hog Island. While the power station property itself is shown to be wooded and undeveloped, the Gilmer map depicts two areas of developed land to the south of the property, belonging to "Nick Savage" (Gilmer 1863).

The next map to provide detailed information about the vicinity of the power station property is the United States Geological Survey (USGS) 1907 Yorktown, Virginia, 15-minute quadrangle (Figure 3). The two roads depicted on the Gilmer map are also shown on the 1907 map, and a series of additional roads had been built in the area of the power station property by this time; however, most development was concentrated to the north (on Hog Island) and to the south (along the southern portion of Hog Island Road). Two structures are depicted within the current power station property on the 1907 map. One structure was located along a road that crossed what is now the eastern side of the power station property on a ridge overlooking Hog Island (north of the intake canal and intake silt pond). The second structure appears to have been located in what is now the eastern end of the intake canal. Several roads are shown crossing what is now the power station property, indicating that additional, unmapped, structures may have been present in the area. There are an additional five structures depicted on Hog Island. Four of them are clustered toward the center of the island, south of the postal town of Homewood. The fifth structure is located at the eastern end of the island. The majority of structures (N=6) on the island are situated at the northern end of Hog Island Road, in the town of Homewood. The 1907 map also shows the steamboat route by which mail would have been delivered to Homewood. Two additional structures are depicted in the northern portion of Hog Island. One was located on an unnamed road that intersected with Hog Island Road south of Homewood. The other was located at the western end of that same unnamed road, on the bank of the James River. Within 1.6 kilometers (1 mile) to the south of the power station property there are an additional 13 structures depicted on the 1907 map. These structures were located to the west, on the bank of the James River (N=2); to the east, on the bank of the James River (N=2); near the confluence of the James River and Lawne's Creek (N=2); and along Hog Island Road (N=7).

The USGS 1950 Cobham Bay, Virginia, 7.5-minute quadrangle (Figure 4) shows less extensive roads in the general vicinity of the power station property than are depicted on the USGS 1907 map. On the 1950 map only two roads are shown on the power station property: (1) Hog Island Road, and (2) a road that appears to roughly define the southern boundary of the present-day power station property. No structures are depicted within the current power station property. Within 1.6 kilometers (1 mile) to the north of the power station property there are no additional structures represented on Hog Island. Within 1.6 kilometers (1 mile) to the south of the power station property there are 17 structures represented. One structure is located near Drewry Point, north of the structures depicted on the 1907 map. One structure is located on Chippokes Creek near Bayse Point. Two structures are located near Lawne's Creek but do not appear to be the two structures

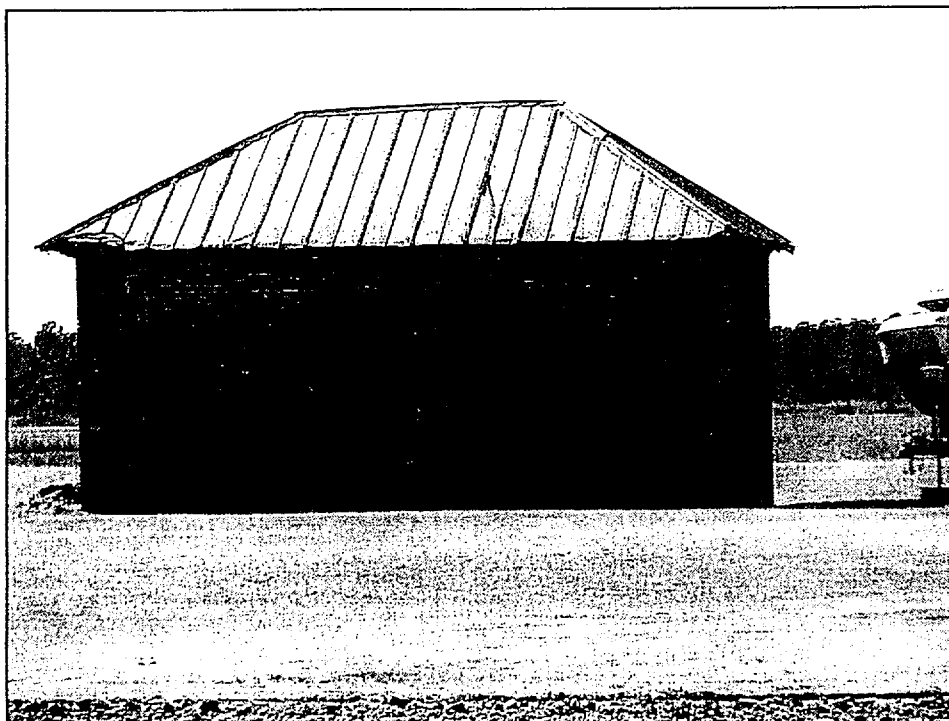


PLATE 1: Architectural Resource 90-53, Homewood Brick Smokehouse

depicted on the 1907 map. The remaining structures (N=13) shown on the 1950 map, four of which also appear to be depicted on the 1907 map, are located on the southern portion of Hog Island Road.

A property plat by W.W. LaPrade and Brothers (Figure 5), dated January 26, 1950, indicates that at that time, with the exception of a shed that stood at the main entrance to the property (on present-day Route 650), the power station property was wooded and contained "no buildings."

The USGS 1957 Cobham Bay, Virginia, 7.5-minute quadrangle (Figure 6) most notably includes the Hog Island State Waterfowl Refuge. No structures are depicted on the power station property. Fifteen structures are depicted within 1.6 kilometers (1 mile) to the south of the current power station property. The structures shown continue to be located along the southern portion of Hog Island Road. Seven of the structures also appear to be depicted on the USGS 1950 map, and of these seven, three also appear to be depicted on the USGS 1907 map. The USGS 1957 map shows only four structures within 1.6 kilometers (1 mile) of the power station property that are not located on Hog Island Road: two structures near Drewry Point (one of which is depicted on the USGS 1950 map), a structure on Chippokes Creek near Bayse Point (also depicted on the 1950 map), and a new structure located east of the previously mentioned structure on Chippokes Creek (on the road leading from Hog Island Road).

The only development on the power station property that is represented on the USGS 1965 Hog Island, Virginia, 7.5-minute quadrangle (Figure 7) is the addition of the two pipelines that cross the eastern end of the property. No structures are depicted on the power station property. Four structures are depicted to the south of the power station, within the 1.6-kilometer (1-mile) radius. Only one of the two structures located near Drewry Point shown on the USGS 1957 map is depicted on the 1965 map. One new structure, and a road that leads to it from Hog Island Road, is located near Bayse Point. The road and structures depicted on Chippokes Creek near Bayse Point on the 1957 map are not represented on the 1965 map. Three structures are located on the southern portion of Hog Island Road. Two of these structures also appear on the 1957 map and one of these two also appears on the USGS 1950 map and, possibly, on the USGS 1907 map. Although the third structure was not depicted on the 1957 map, both the 1950 map and the 1907 map depict a structure in its location.

Finally, the USGS 1984 Hog Island, Virginia, 7.5-minute quadrangle (see Figure 1) includes the Surry Power Station and its associated roads, structures, and transmission lines. Excluding the developments on the power station property itself, only three structures are depicted within 1.6 kilometers (1 mile) of the property. These structures are located just within 1.6 kilometers (1 mile) to the south of the power station property on Hog Island Road. Of these three structures, one appears to be depicted on all of the maps from 1907 to 1984, one does not appear to be depicted on any other map, and one is the structure depicted on the USGS 1965 map that may appear on all of the maps from 1907 to 1984 except for the USGS 1957 map.

## IV. PROPERTY'S POTENTIAL FOR ARCHAEOLOGICAL SITES

### A. INTRODUCTION

A pedestrian site survey of the Surry Power Station property was performed on February 27, 2001. Its purpose was to identify portions of the property with the potential to yield archaeological resources. This survey, and the data derived from the background research, resulted in the classification of areas of the property with respect to archaeological resource potential as: (1) No Potential, (2) Low Potential, and (3) Moderate-to-High Potential (Figure 8).

### B. NO POTENTIAL

Due to disturbances related to construction of the major structures of the power station, much of the power station property has no potential to yield archaeological resources (see Figure 8). These No Potential areas include the intake and discharge canals, intake silt pond, spent fuel storage area, sewage disposal area, combustion generator station, power substation and associated transmission lines, nuclear power station and surrounding buildings, and the associated buildings to the north of the nuclear power station.

### C. LOW POTENTIAL

Several areas of the power station property were classified as having low potential to yield archaeological resources. The Low Potential areas include three sections of the property that lie to the east and west of the power substation and the lowland areas along streambeds in the northern portion of the power station property (see Figure 8).

Because it was difficult to determine, through pedestrian survey alone, whether the three areas east and west of the power substation had been extensively disturbed during the construction of the surrounding power station structures, they were classified as Low Potential. The location of these areas on level terraces overlooking streams makes them possible settings for prehistoric and historic archaeological sites. However, the proximity of these areas to the disturbed portions of the power station property suggests that these areas may have been disturbed during construction of the power station.

The lowland areas on the northern side of the property were also classified as Low Potential. This classification was based on the fact that neither prehistoric nor historic sites would have been established directly in a wetland area. However, as has been discussed in the prehistoric context section, present-day wetlands would have been exposed by the lower water levels until the late Holocene. For this reason, there exists a low potential for discovering early prehistoric sites within the low-lying wetlands on the northern side of the power station property.

### D. MODERATE-TO-HIGH POTENTIAL

The remainder of the power station property was classified as having moderate-to-high potential for yielding archaeological resources based on the relatively undisturbed appearance of the ground surface and the likelihood for prehistoric and historic archaeological sites according to the settlement patterns discussed in the background research (see Figure 8). The Moderate-to-High Potential area can be divided into two basic sections. Section One consists of the western end of the power station property between Route 650 and the James River. Section Two is located on the northern portion of the power station property and consists of the ridges and terraces that overlook the streambeds which run into Hog Island Creek.

Section One includes the bank of the James River and the ridges and terraces overlooking the river, where the relief suggests that it would have been a location for either prehistoric or historic occupation. In addition, one previously identified historic domestic site (44SY2) is located in this area. Archaeological investigations at this site, funded in part by Virginia Electric and Power Company, discovered the foundations of an old house, of unknown age. The existence of this site suggests that additional historic, or prehistoric, archaeological sites may be found in this area of the power station property. While the area south of the discharge canal suffers from moderate erosion, the area extending north from the discharge canal to just north of the power station property line has, since the construction of the power station, been subject to minimal erosion (Virginia Institute of Marine Science 1976). The erosion rates suggest that, while there may be cultural features located on, and just off, the coastline of the property, the northern portion of this section is likely to provide better preservation for cultural resources.

Section Two includes the ridges and terraces that overlook Hog Island Creek. Again, the relief in these locations suggests the types of settings that would have favored for prehistoric and historic occupation. Based on historical maps, it appears likely that there were structures located in the northeastern portion of this section until some time after 1907.

## V. SUMMARY AND RECOMMENDATIONS

The Louis Berger Group, Inc., has completed a cultural resource assessment of the Surry Power Station, Surry County, Virginia, on behalf of Dominion Resources, Inc., as part of Dominion's relicensing of the Surry Power Station with the Nuclear Regulatory Commission. The cultural resource assessment involved: (1) thorough background research to compile existing information about the vicinity of the power station; (2) a field inspection of the power station site; and (3) delineation of areas within the power station property with respect to their potential for archaeological resources.

No extant historic architectural resources were located within a 1.6-kilometer (1-mile) radius of the power station property, and no historic architectural resources are present within the power station property. While there is one extant historic structure further north, on Hog Island, it would not be affected by current activities at the power station.

On the basis of the background research performed in February 2001 Berger divided the Surry Power Station property into three classifications with respect to potential for archaeological resources as: (1) No Potential, (2) Low Potential, and (3) Moderate-to-High Potential. Following are Berger's suggestions regarding the course of action to be taken if future ground-disturbing activities are to occur in the respective areas.

### A. AREAS WITH NO POTENTIAL FOR ARCHAEOLOGICAL RESOURCES

No further archaeological investigations are recommended for the areas of the power station property classified as having no potential for archaeological resources.

### B. AREAS WITH LOW POTENTIAL FOR ARCHAEOLOGICAL RESOURCES

Areas of the property with low potential for archaeological resources would be appropriate for Phase I subsurface testing depending on the specific ground conditions. For those areas in the vicinity of the power substation, subsurface testing would not be necessary in locations where the power company could document previous disturbance. For those areas in the wetlands north of the power station, the need for and extent of subsurface testing would be based on the specific environmental conditions in the area to be disturbed.

### C. AREAS WITH MODERATE-TO-HIGH POTENTIAL FOR ARCHAEOLOGICAL RESOURCES

In areas of the property with a moderate-to-high potential for archaeological resources which appear to be predominantly undisturbed, Phase I subsurface testing would be appropriate prior to undertaking ground-disturbing activities in order to identify any possible cultural resources. In addition, the area west of Route 650 would require more intensive archaeological investigation, due to the existence of a previously recorded archaeological site (44SY2). This archaeological site could be evaluated to determine if it is eligible for inclusion in the National Register.

In addition, should archaeological resources or artifacts be encountered on any portion of the power station property during the course of normal power station activities, employees should be instructed to note the location of the resource and report the discovery to those in charge of the power station property. The discovery can then be evaluated.

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