

## **Appendix E**

### **Virginia Electric and Power Company's Compliance Status and Consultation Correspondence**

## Appendix E

### Virginia Electric and Power Company's Compliance Status and Consultation Correspondence

The list of licenses, permits, consultations, and other approvals obtained from Federal, State, regional, and local authorities for Surry, Units 1 and 2, are shown in Table E-1. Following Table E-1 are reproductions of correspondence prepared and sent during the evaluation process for the application for renewal of the operating licenses for Surry, Units 1 and 2.

Source	Recipient	Date of Letter
United States Nuclear Regulatory Commission (C. I. Grimes)	Virginia Department of Historic Resources	January 3, 2002
United States Nuclear Regulatory Commission (C. I. Grimes)	U.S. Fish and Wildlife Service	January 24, 2002
Commonwealth of Virginia Department of Environmental Quality (E. L. Irons)	Dominion Virginia Power Company	February 20, 2002
United States Nuclear Regulatory Commission (B. Zalcman)	Tuscarora Nation	July 29, 2002
Dominion Virginia Power Company (T. Banks)	National Marine Fisheries Service	February 6, 2001
United States Department of the Interior (K. L. Mayne)	United States Nuclear Regulatory Commission	May 22, 2002
United States Department of Commerce (M. Colligan)	Dominion Generation	March 23, 2001
United States Nuclear Regulatory Commission (P.T. Kuo)	U.S. Fish and Wildlife Service	November 6, 2002

**Table E-1.** Federal, State, Local, and Regional Licenses, Permits, Consultations, and Other Approvals for Surry Power Station, Units 1 and 2

Agency	Authority	Description	Number	Issue Date	Expiration Date	Remarks
NRC	10 CFR Part 50	Operating license, Surry, Unit 1	DPR-32	05/26/72	05/25/12	Authorizes operation of Unit 1
NRC	10 CFR Part 50	Operating license, Surry, Unit 2	DPR-37	01/30/73	01/29/13	Authorizes operation of Unit 2
FWS	Migratory Bird Treaty Act (16 USC 703-712)	Permit	MB705136-0	04/22/02	03/31/03	The permit authorizes removal of up to 15 osprey nests causing safety hazards.
FWS	Section 7 of the Endangered Species Act (16 USC 1536)	Consultation	NA	Letter from NRC to FWS 01/24/02	NA	Section 7 requires a Federal agency to consult with FWS regarding whether a proposed action will affect endangered or threatened species. FWS determined that the renewal of the Surry OLs may affect the bald eagle.
NMFS	Section 7 of the Endangered Species Act (16 USC 1536)	Consultation	Letter 1514-05(A) from NMFS to VEPCo, 03/23/01	NA	NA	NMFS determined that renewal of the Surry OLs is not likely to affect species protected by the Endangered Species Act and under the purview of NMFS
U.S. Army Corps of Engineers	Section 404 of the Clean Water Act (33 USC 1344)	Authorization to use regional permit for discharge of dredged or fill material	97-RP-19, Project 99-V1336	08/27/99	08/12/03	Permit covers periodic dredging to maintain the intake channel in the James River

Table E-1. (contd)

Agency	Authority	Description	Number	Issue Date	Expiration Date	Remarks
DOT Research and Special Programs Administration	49 CFR Part 107, Subpart G	Registration	0531000020241	05/25/01	06/30/02	Registration covers hazardous materials shipments
VMRC	COV Title 28.2, Chapters 12 and 13	Permit	VMRC 92-1347	08/02/99	12/31/02	Maintenance dredging of the intake channel in the James River
VDHR	Section 106 of the National Historic Preservation Act (16 USC 470f)	Consultation	NA	Letter from NRC to VDHR 01/03/02	NA	The National Historic Preservation Act requires Federal agencies to take into account the effect of any undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places.
VDEQ	Section 307(c)(3)(A) of the Coastal Zone Management Act (16 USC 1456[c][3][A])	Consistency determination with the Virginia Coastal Management Program	NA	Letter from VDEQ to VEPCo (02/20/02)	NA	Certification that the Surry Power Station complies with the Virginia Coastal Program
VDEQ	9 VAC 25-610-40	Permit	GW0003900	08/01/99	08/01/09	Permit for withdrawal of groundwater for use as potable, process, and cooling water
VDEQ	33 USC 1342	Virginia pollutant discharge elimination system (NPDES) permit	VA0004090	11/02/01	11/01/06	The NPDES permit covers plant and stormwater discharges

**Table E-1. (contd)**

Agency	Authority	Description	Number	Issue Date	Expiration Date	Remarks
VDEQ	9 VAC 5-80-10	Air operating permit				An application for an air operating permit was submitted to VDEQ on 0/12/98 and revised on 04/07/98. Issuance of the permit is pending.
VDEQ	9 VAC 5-20-160	Registration	50336	NA	NA	Annual recertification of air emission sources
VDEQ	9 VAC 5-80-10	Permit		09/27/93	None	Air pollution permit covering installation and operation of the emergency blackout generator
Virginia Department of Health, Bureau of Water Supply Engineering	Waterworks regulations, section 3.14	Permit	3181800	03/07/78	None	Permit authorizes operation of a noncommunity waterworks

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CFR = Code of Federal Regulations  
 COV = Code of Virginia  
 DOT = U.S. Department of Transportation  
 EPA = U.S. Environmental Protection Agency  
 FWS = U.S. Fish and Wildlife Service  
 NA = not applicable  
 NMFS = National Marine Fisheries Service  
 NRC = U.S. Nuclear Regulatory Commission  
 USC = United States Code  
 VAC = Virginia Administrative Code  
 VDEQ = Virginia Department of Environmental Quality  
 VDHR = Virginia Division of Historic Resources  
 VEPCo = Virginia Electric and Power Company  
 VMRC = Virginia Marine Resources Commission

January 3, 2002

Ms. Cara H. Metz, Director  
Division of Resource Services and Review  
Virginia Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221

Dear Ms. Metz:

This letter responds to issues raised in your letter dated February 13, 2001, to Mr. William Corbin of Virginia Electric and Power Company (VEPCo), regarding the license renewal Environmental Reports for the Surry and North Anna Power Stations. Our response has benefitted from productive discussions between representatives of my staff and Dr. Ethel Eaton of your staff, including a meeting held at the Virginia Department of Historic Resources on September 21, 2001, for Surry.

In response to your original letter, VEPCo authorized cultural resource assessments of the Surry and North Anna sites. These assessments were conducted by the Louis Berger Group, Inc., and the completed reports were delivered to VEPCo in March 2001, with an addendum to the North Anna report delivered in October 2001. A copy of the Surry report was provided to the U.S. Nuclear Regulatory Commission (NRC) during our recent visit to the site in September 2001. Also during this September visit, Dr. Eaton and our consulting archaeologist, Dr. W. Bruce Masse of Los Alamos National Laboratory, had the opportunity to tour the grounds of the Surry Power Plant. Dr. Masse later reviewed the assessment report and pertinent archival records on file at the Virginia Department of Historic Resources. We received a copy of the North Anna report and its addendum following our visit to that site in October 2001.

The NRC is acutely aware of the richness of the history in and around Gravel Neck Peninsula, and the lower James River in general. We are also aware of the potential for significant intact historic and archaeological resources to be present in the undeveloped portions of the Surry and North Anna Power Stations. We have discussed this topic at considerable length with the station managers and with other appropriate representatives from VEPCo, and are confident they share our concern for these cultural resources. Station procedures provide for the protection of cultural resources during future site activities.

Dr. Eaton, our reviewers, and the cultural resources assessment reports are in agreement that there is little likelihood that intact cultural resources exist in the presently developed portions of the Surry and North Anna Power Stations.

Because there are current operating procedures that take into account the inadvertent discovery of historic and archaeological remains at both stations, and because the license renewal is not expected to result in major refurbishment nor the need to expand operations into the currently undeveloped portions of the stations, we believe that license renewal is unlikely to

Appendix E

C. Metz

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affect cultural resources. We therefore also consider it unnecessary at this time to enter into a programmatic agreement pursuant to the license renewal. However, should conditions specific to either of the stations change, or should the NRC license renewal process change in general, we would be prepared to reconsider this decision.

Please let us know if you have any other questions or concerns about the license renewal process. We will send you copies of the completed draft Supplemental Environmental Impact Statements for both the Surry and North Anna Power Stations as soon as they become available for review. Also, if you do not yet have a copy of the Berger Group cultural resource assessment reports for the two stations and wish to obtain copies for your files, we would be happy to provide you with copies.

Sincerely,  
**Original Signed By: CIGrimes**  
Christopher I. Grimes, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280, 50-281, 50-338, and 50-339

Enclosure: As stated

cc w/encl: see next page

DISTRIBUTION  
Environmental r/f  
DMatthews/FGillespie  
JTappert  
AKugler  
RPrato  
CGrimes  
OGC  
EHickey (PNNL)

Accession no.: **ML020070569**

\*See previous concurrence

Document Name:G:\Rgeb\North Anna-Surry\Common Items\Historic Preservation\NRC ltr to VDHR.wpc

OFFICE	PM:RGEB	SC:RGEB	C:RGEB	PD:RLEP	OGC (NLO)
NAME	AKugler*	BZalcman*	CCarpenter*	CGrimes*	RWeisman*
DATE	12/13/01	12/13/01	12/14/01	01/04/02	01/03/02

OFFICIAL FILE COPY

January 24, 2002

Ms. Karen Mayne, Supervisor  
Virginia Field Office  
U.S. Fish and Wildlife Service  
6669 Short Lane  
Gloucester, Virginia 23061

SUBJECT: REQUEST FOR LIST OF PROTECTED SPECIES WITHIN THE AREA UNDER  
EVALUATION FOR THE SURRY AND NORTH ANNA POWER STATIONS  
LICENSE RENEWAL

Dear Ms. Mayne:

The Nuclear Regulatory Commission (NRC) is evaluating an application submitted by Virginia Electric and Power Company for the renewal of the operating licenses for its Surry and North Anna Power Stations, Units 1 and 2. The NRC is preparing station-specific supplements to its "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437) for this proposed license renewal, for which we are required to evaluate potential impacts to threatened and endangered species.

The proposed action would include use and continued maintenance of existing facilities and transmission lines and would not result in new construction or disturbance. The Surry Power Station is located on the James River in Surry County, Virginia. The transmission line corridors for this station pass through portions of Surry, Isle of Wight, Prince George, and Charles City counties, and the corporate limits of the cities of Suffolk, Chesapeake, Newport News, and Hopewell, Virginia. In total, the corridors include about 5000 acres (170 miles in length).

The North Anna Power Station is located on the south side of Lake Anna in Louisa County, Virginia. The transmission line corridors for this station pass through portions of Louisa, Hanover, Goochland, Powhatan, Henrico, Chesterfield, Spotsylvania, Caroline, Orange, Culpeper, and Fauquier counties, Virginia. In total, the corridors include about 2900 acres (120 miles in length). In addition, Lake Anna, which is fed by the North Anna River and impounded by the North Anna Dam, is used as part of the cooling system for North Anna Power Station. Therefore, the lake and the Lower North Anna River are considered part of the aquatic environment of interest.

To support the environmental impact statement preparation process and to ensure compliance with Section 7 of the Endangered Species Act, the NRC requests a list of species and information on threatened, endangered, proposed, and candidate species and critical habitat that may be in the vicinity of the Surry and North Anna Power Stations and their associated transmission lines. We have enclosed figures showing the location of the stations and their associated transmission lines.

Also, we would like confirmation that the Chesapeake Bay Field Office will serve as the U.S. Fish and Wildlife Service's point of contact for Endangered Species Act compliance, including any Section 7 consultation that may be needed, for the Surry and North Anna Power Stations.

Appendix E

K. Mayne

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If you have any comments or questions, please contact Andrew J. Kugler, Senior Project Manager, at (301) 415-2828.

Sincerely,  
**CIGrimes**  
Christopher I. Grimes, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280, 50-281, 50-338 and 50-339

Enclosure: As stated

cc: John P. Wolflin, Supervisor  
Chesapeake Bay Field Office  
U.S. Fish and Wildlife Service  
177 Admiral Cochrane Drive  
Annapolis, Maryland 21401

cc: See next page

**Accession nos.:**

1. Cover letter: ML020250603
2. Enclosure: Figures Depicting the Location of the Surry and North Anna Power Stations and Their Associated Transmission Lines - ML020100388
3. Package: ML020250611

DISTRIBUTION:

DMatthews/FGillespie      GEdison  
CGrimes                              SMonarque  
JTappert                              RPrato  
AKugler                                Environmental R/F  
EHickey (PNNL)

\*See previous concurrence

DOCUMENT NAME: G:\RGE\North Anna-Surry\Surry\Consult\Ltr to FWS-E&T spec.wpd

OFFICE	PM:RLEP	SC:RLEP	RLEP:DRIP
NAME	AKugler*	JTappert*	CGrimes*
DATE	01/22/02	01/22/02	01/24/02

OFFICIAL RECORD COPY

**Enclosure: Figures Depicting the Locations of the  
Surry and North Anna Power Stations and  
Their Associated Transmission Lines**

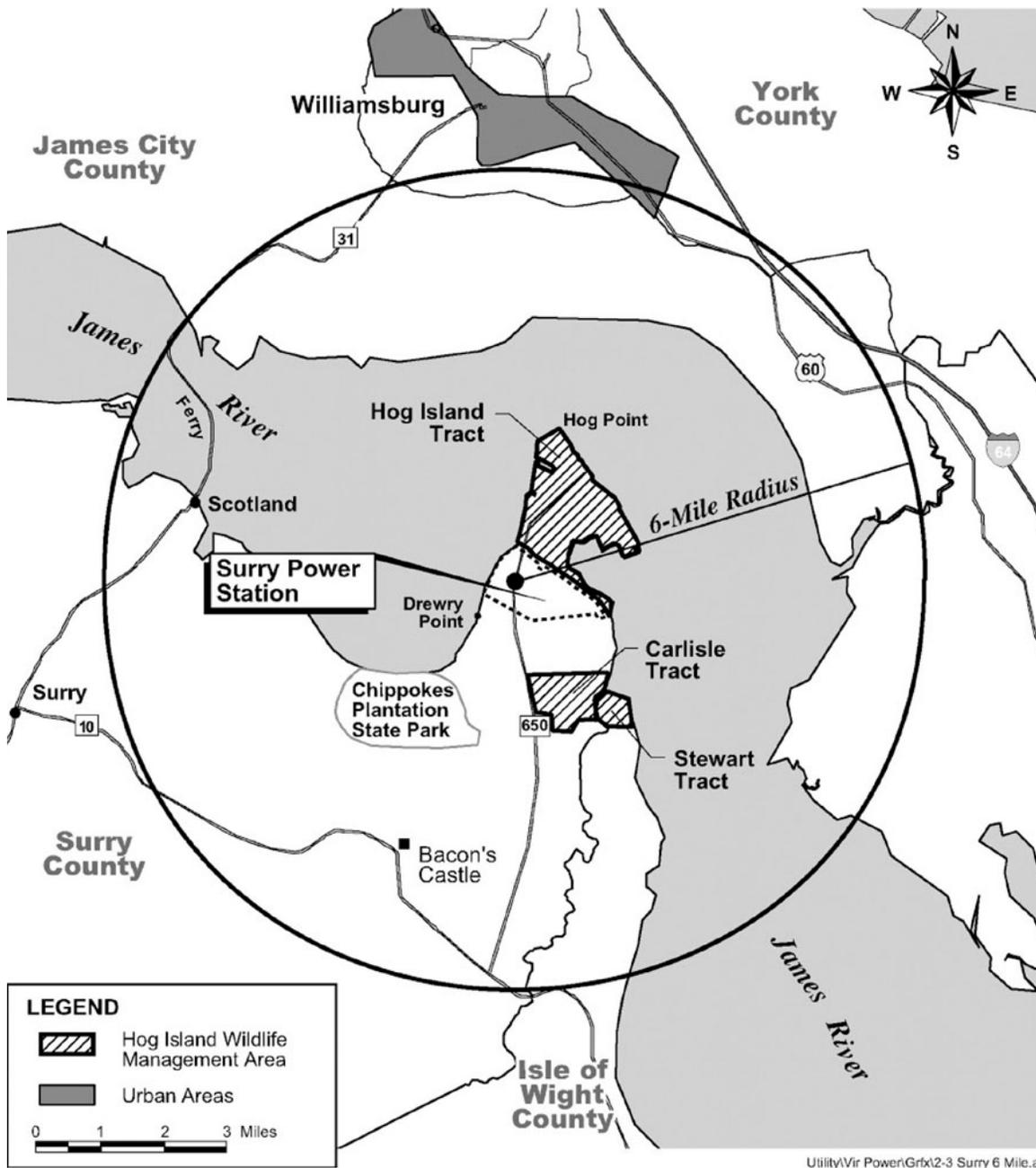


Figure 2-3. Dominion - 6-Mile Surry Vicinity Map

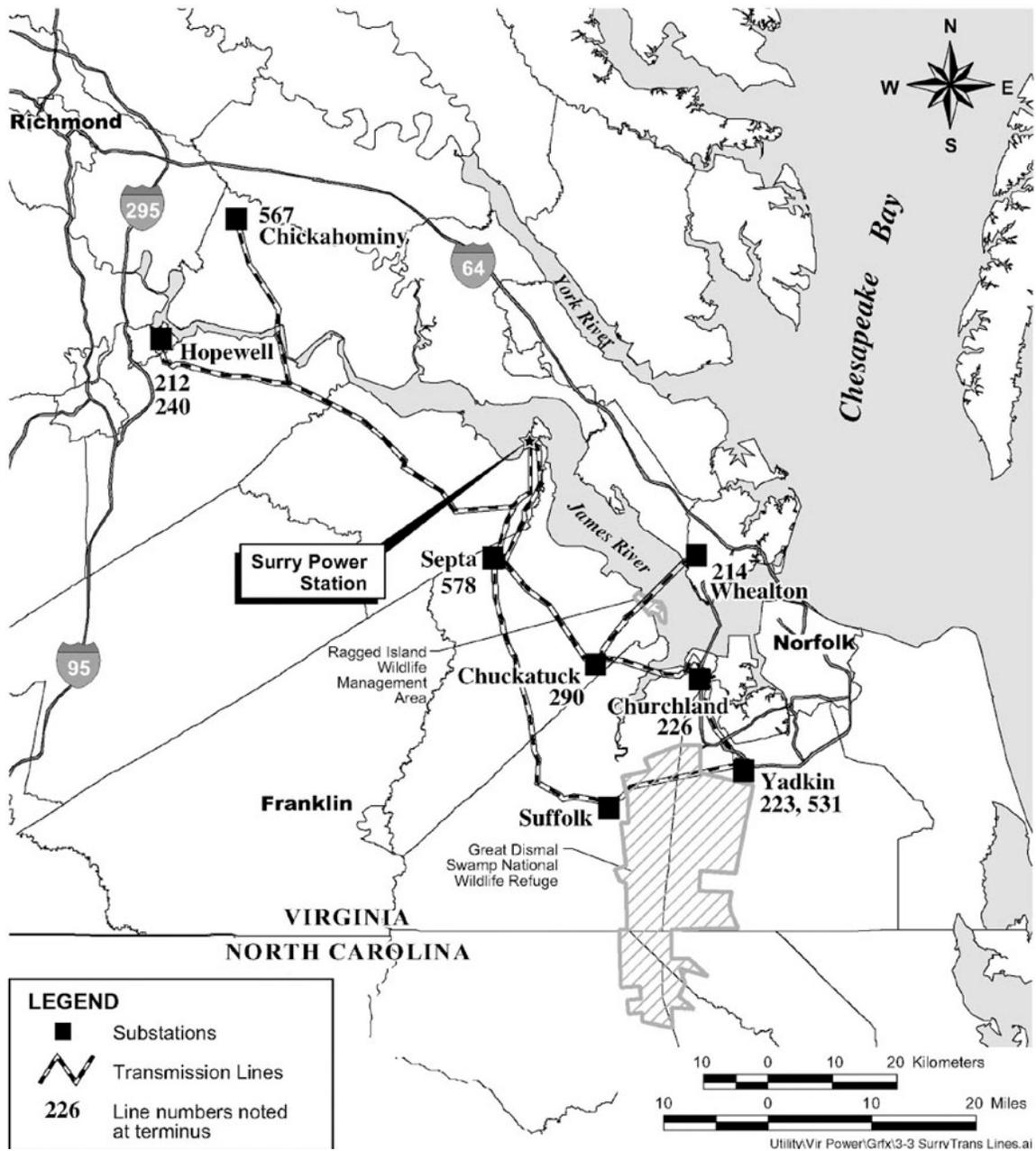


Figure 3-3. Transmission Corridors

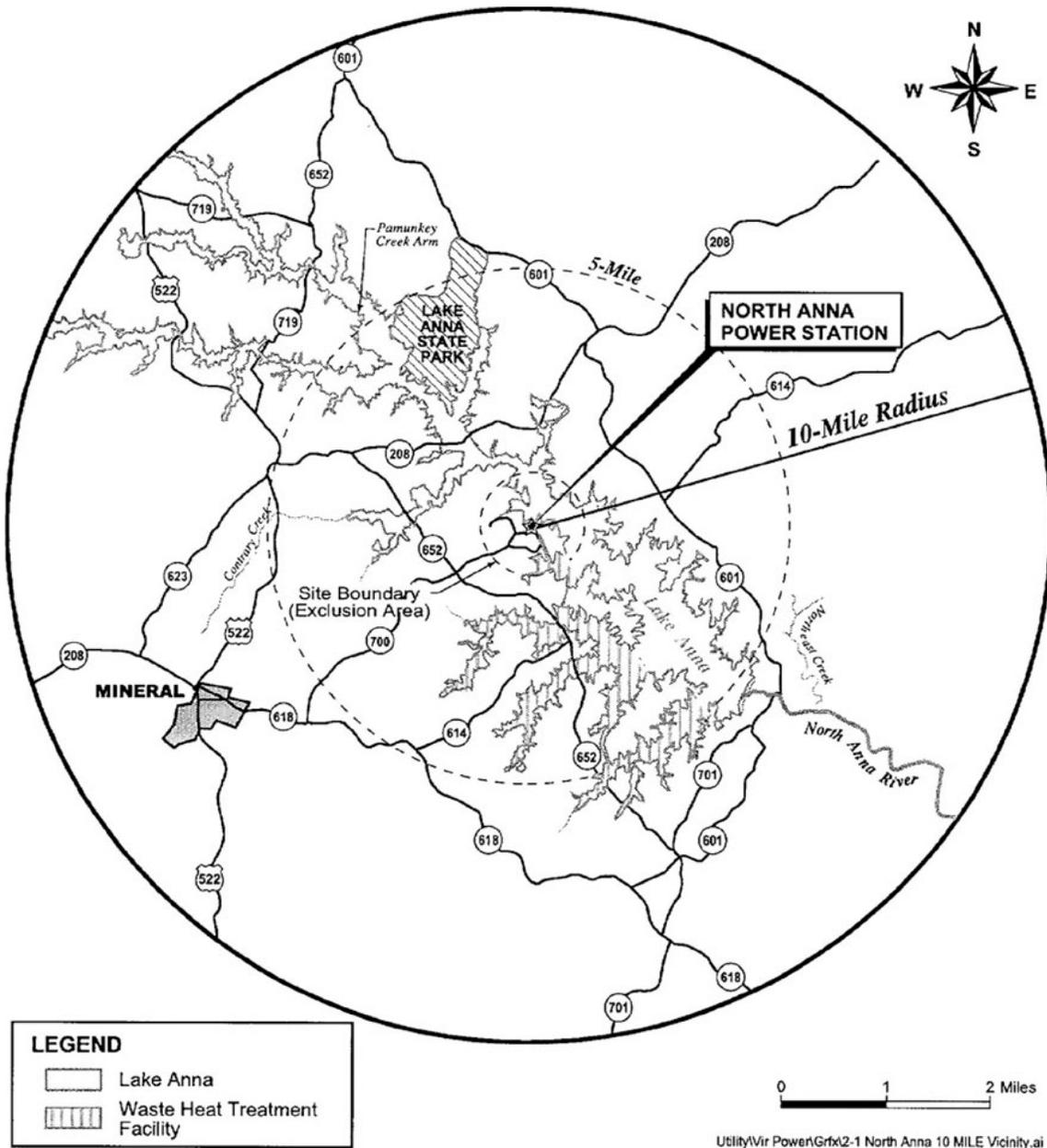


Figure 2-1. Dominion - 10-Mile North Anna Vicinity Map

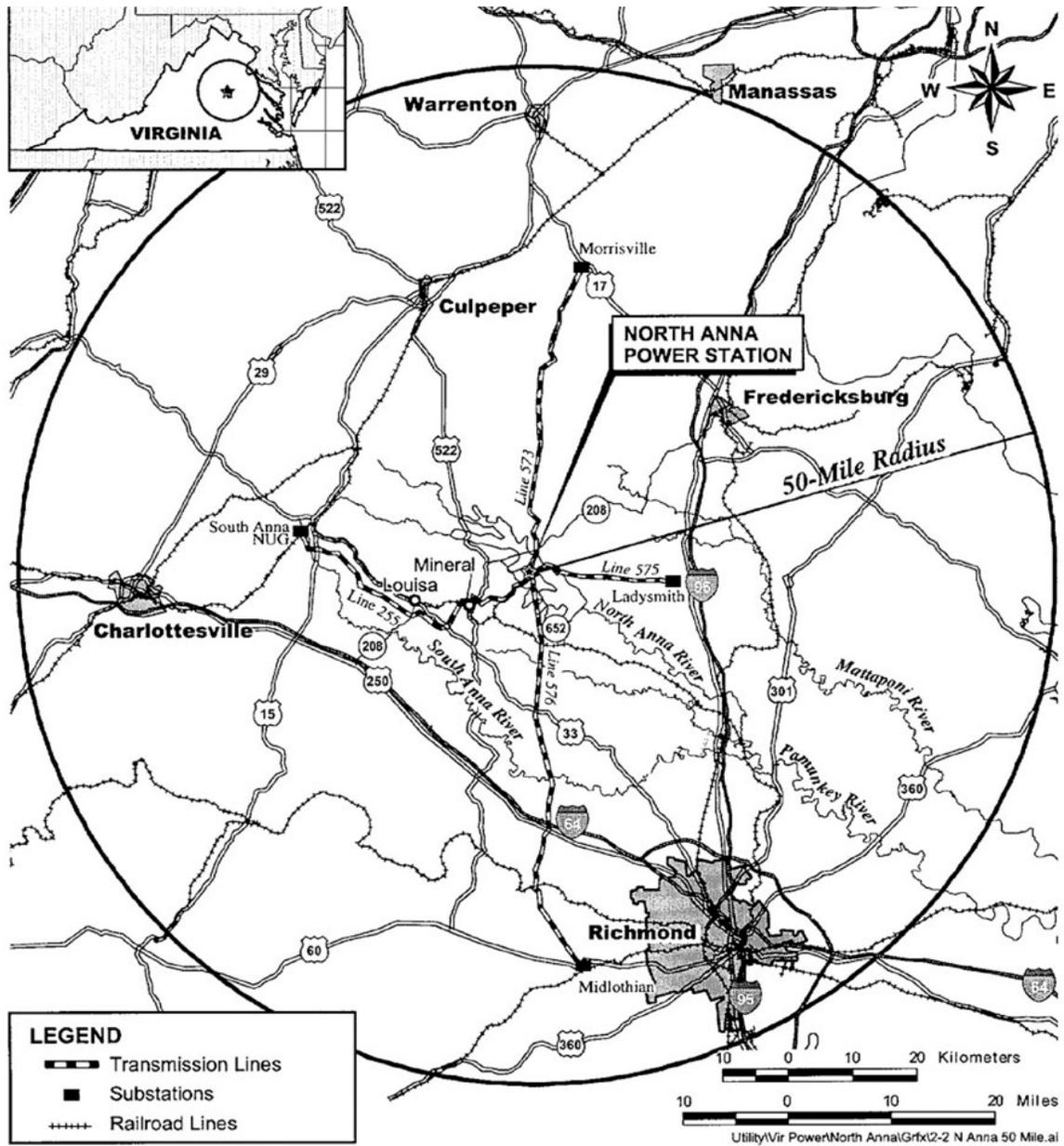


Figure 2-2. Dominion - North Anna Power Station 50-Mile View



## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY

*Street address:* 629 East Main Street, Richmond, Virginia 23219

*Mailing address:* P.O. Box 10009, Richmond, Virginia 23240

Fax (804) 698-4500 TDD (804) 698-4021

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W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

Robert G. Burnie  
Director

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

February 20, 2002

J. W. White, Ph.D.  
Manager, Water and Waste Programs  
Dominion Virginia Power Company  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

**RE: Surry Power Station License Renewal: Application by Dominion Virginia Power Company to U.S. Nuclear Regulatory Commission for Renewed Operating License  
Federal Consistency Certification under the Coastal Zone Management Act  
DEQ-01-186F**

Dear Dr. White:

This letter responds to your September 27, 2001 letter requesting the Department of Environmental Quality's concurrence with the federal consistency certification for renewal of the Dominion Virginia Power Company's operating license for the Surry Power station. The Department of Environmental Quality is responsible for coordinating Virginia's review of federal consistency certifications and responding to applicants for federal approval on behalf of the Commonwealth. The following agencies and planning district commission took part in this review:

Department of Environmental Quality  
Department of Conservation  
Department of Health  
Marine Resources Commission  
Chesapeake Bay Local Assistance Department  
Crater Planning District Commission.

In addition, Surry County was invited to comment.

J. W. White, Ph.D.  
February 20, 2002  
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### Project Description

Dominion Virginia Power submitted information for this review in the form of two documents. One, submitted with the initial letter, is called "Appendix E, Environmental Report" (cited hereinafter as "Appendix E"). The other is entitled "Federal Consistency Certification for Surry Power Station License Renewal" and is dated October 26, 2001 (cited hereinafter as "Certification").

Dominion Virginia Power owns and operates the Surry Power Station, a nuclear electric generating station located on the James River in Surry County. The plant is situated at the river just south of Hog Island Wildlife Management Area (Appendix E, page E-11, figure E-2). The plant consists of two nuclear reactors and associated steam turbines that generate approximately 1,600 megawatts of electricity. The Unit 1 license is to expire on May 25, 2012, while the Unit 2 license will expire on January 29, 2013. Both licenses have terms of 20 years, and are to be renewed for new 20-year terms. (Appendix E, page E-3). The Company expects Surry Power Station operations during the new license term to be a continuation of present operations (Appendix E, page E-2).

### Federal Consistency Analysis

The Virginia Coastal Resources Management Program (VCP) is comprised of a network of programs administered by several agencies. In order to be consistent with the VCP, the applicant for federal licensing must obtain all the applicable permits and approvals listed under the Enforceable Programs of the VCP prior to commencing the project. Based on the commitments provided in the Consistency Certification that Dominion Virginia Power will obtain and comply with all approvals from agencies administering the applicable Enforceable Programs (Certification, page 1; Appendix E, page E-2) and comments submitted by agencies administering the Enforceable Programs, the Department of Environmental Quality concurs with the finding that the license renewal and continued operation of the Surry Power Station is consistent with Virginia's Coastal Resources Management Program.

This discussion analyzes the continued operation of the project under the license renewal in light of the Enforceable Programs of the Virginia Coastal Management Program.

*1. Subaqueous Lands Management.* The Marine Resources Commission indicates no objection to the renewal of the Nuclear Regulatory Commission (NRC) license for this project, provided that the applicant adheres to existing activities permitted by the Commission and/or submits appropriate permit applications for any new activities

J. W. White, Ph.D.  
February 20, 2002  
Page 3

affecting State-owned subaqueous lands. According to the Certification, the applicant has no plans for any activity under the license renewal that would require a permit from the Commission (page 13, Table 2, item b).

**2. Coastal Lands Management.** According to the Chesapeake Bay Local Assistance Department, the proposed license renewal is not subject to any requirements under the Chesapeake Bay Preservation Act because the license renewal would allow continued operations without new construction or redevelopment.

**3. Wetlands Management.** According to DEQ's Piedmont Regional Office, renewal of the NRC license for this project will not affect the existing Virginia Water Protection Permit covering the project, as long as the project stays in compliance with the requirements of the permit. According to DEQ's Virginia Water Protection Program, activities under the license renewal will not affect wetlands.

**4. Point Source Water Pollution.** According to DEQ's Piedmont Regional Office, renewal of the NRC license for this project will not affect the existing Virginia Pollutant Discharge Elimination System Permit covering the project, as long as the project stays in compliance with the requirements of the permit. According to DEQ's Virginia Water Protection Program, activities under the license renewal will not affect surface waters.

**5. Air Pollution Control.** According to DEQ's Piedmont Regional Office, renewal of the NRC license for this project will not affect the existing air permits covering the project, as long as the project stays in compliance with the requirements of these permits.

**6. Other Enforceable Programs.** As the Certification indicates, the remaining Enforceable Programs of the Virginia Coastal Resources Management Program do not apply to the renewal of the NRC license for the Surry Power Station. Specifically, the Fisheries Management Program, including the State Tributyltin Regulatory Program, is not applicable to continued operation of the Surry Power Station. Neither are the Dunes Management Program, the Non-point Source Pollution Control (Erosion and Sediment Control) Program, or the Shoreline Sanitation Program.

#### Environmental Impacts and Mitigation

**1. Natural Heritage and Wildlife Resources.** "Natural heritage resources" are defined as the habitat of rare, threatened, or endangered species of plants and animals, unique or exemplary natural communities, and significant geologic formations, according to the Department of Conservation and Recreation. That Department indicates that

J. W. White, Ph.D.  
February 20, 2002  
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natural heritage resources have not been documented as present in the vicinity of the project. In addition, the Department of Conservation and Recreation represents the Department of Agriculture and Consumer Services in commenting on state-listed endangered plant and insect species that might be affected by a project. The continued operation of the Surry Power Station will not affect protected plant or insect species.

**2. Recreation Resources.** Continued operation of the Surry Power Station will not adversely affect any existing or planned recreational facilities. Nor will it affect streams on the National Park Service Nationwide Inventory, Final List of Rivers or potential Virginia Scenic Rivers. The project will not affect any Virginia Byways.

**3. Solid and Hazardous Waste Management.** The DEQ's Waste Division, Office of Remedial Programs did a cursory review of its data files and found that the Surry Power Station is listed as a small-quantity generator of hazardous waste, subject to the provisions of Title 40, Code of Federal Regulations, Part 262 (and related provisions in Parts 264, 265, and 268), which are adopted by reference in the Virginia Hazardous Waste Management Regulations. The most recent DEQ inspection of the North Anna Power Station took place in May 1999; the inspection revealed that the Station was in compliance with all the requirements applicable to small-quantity generators.

**4. Radiological Health Considerations.** According to the Department of Health's Radiological Health Program, the Department of Health provides independent verification of this facility's environmental monitoring program for radiological releases. The Department of Health implemented its environmental monitoring program during the pre-operational stage of the facility; the program continues to the present day. There is no indication, in the published annual reports of the monitoring program, of any releases of radiation affecting the environment in the history of the program.

In addition, the applicant has been supportive of the efforts of state and local governments in maintaining an effective State Emergency Response Plan in case of radiological emergencies at the power plant. The Nuclear Regulatory Commission license includes a condition requiring certification of the Plan by the Federal Emergency Management Agency (FEMA); FEMA has certified the Plan.

J. W. White, Ph.D.  
February 20, 2002  
Page 5

Thank you for the opportunity to comment on this federal consistency certification.

Sincerely,



Ellie L. Irons  
Program Manager  
Office of Environmental Impact Review

Enclosures

cc: Derral Jones, DCR  
Leslie P. Foldesi, VDH  
Thomas D. Modena, DEQ-DWPC-ORP  
K.S. Narasimhan, DEQ-DAPC-ODA  
Mark S. Alling, DEQ-PRO  
Brenda K. Winn, DEQ-VWPP  
M. R. Habibi, DEQ-PRO  
Tony Watkinson, MRC  
Catherine M. Harold, CBLAD  
Dennis K. Morris, Crater PDC  
Terry D. Lewis, Surry County  
Andy Kugler, U.S. NRC

July 29, 2002

Chief Leo Henry  
Tuscarora Nation Clerk  
2006 Mt. Hope Road  
Lewiston, NY 14092

Mr. Neil Patterson, Jr., Director  
Tuscarora Environmental Program  
Tuscarora Nation  
2045 Upper Mtn. Road  
Sanborn, NY 14132

Mr. Richard Hill  
Haudenosaunee Standing Committee  
2235 Mt. Hope Road  
Tuscarora Nation  
Lewiston, NY 14092

SUBJECT: AVAILABILITY OF DRAFT PLANT-SPECIFIC SUPPLEMENTS 6 AND 7 TO  
THE GENERIC ENVIRONMENTAL IMPACT STATEMENT REGARDING THE  
LICENSE RENEWAL FOR THE SURRY AND NORTH ANNA POWER  
STATIONS

Dear Messrs:

The U.S. Nuclear Regulatory Commission (NRC) staff has completed draft plant-specific Supplements 6 and 7 to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," regarding the renewal of operating licenses DPR-32 and DPR-37 for Surry Power Station, Unit Nos. 1 and 2 (Surry), and NPF-4 and NPF-7 for North Anna Power Station, Unit Nos. 1 and 2 (North Anna), for an additional 20 years of operation. Representatives of the Bureau of Indian Affairs (Department of the Interior) expressed their interest in ensuring that the NRC provide you with the opportunity to share your views on the findings of the staff assessment.

Both of these facilities are a considerable distance from the Neuse and Roanoke Rivers. The Surry plant is located on the James River, six miles south of Williamsburg, VA. Construction of the Surry plant was initiated in 1968; Unit No. 1 went into commercial operation in 1972 and Unit No. 2 in 1973. The North Anna plant is located on Lake Anna, 10 miles northeast of Mineral, VA. Construction of the North Anna plant was initiated in 1971; Unit No. 1 went into commercial operation in 1978 and Unit No. 2 in 1980. Neither of the plants anticipate any major refurbishment activities associated with a 20-year renewal of the licenses that could result in land disturbances beyond those already experienced.

Enclosed are copies of the two reports for your information. The NRC plans to prepare the final versions of these reports in September 2002. The draft reports were filed with the U.S. Environmental Protection Agency (EPA) and a notice of availability was issued with each,

Appendix E

L. Henry & N. Patterson, et al.

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indicating a 75-day comment period. Should you have an interest in commenting on these drafts, we request that such comments be received by the NRC no later than August 30, 2002, so that they may be considered in the final Supplements. Comments on either document should be addressed to:

Chief  
 Rules and Directives Branch  
 Mailstop T-6D 59  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555-0001

Comments may also be submitted electronically to the NRC at [SurryEIS@nrc.gov](mailto:SurryEIS@nrc.gov) or at [NorthAnnaEIS@nrc.gov](mailto:NorthAnnaEIS@nrc.gov).

Sincerely,  
**Original Signed By: BZalcman**  
 Barry Zalcman, Senior Project Manager  
 Environmental Section  
 License Renewal and Environmental Impacts Program  
 Division of Regulatory Improvement Programs  
 Office of Nuclear Reactor Regulation.

Docket Nos. 50-280, 50-281,  
 50-338, and 50-339

Enclosures: As stated  
 cc w/o encl: See next page

Distribution:

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D. Matthews/F. Gillespie	B. Zalcman	M. Lesar
A. Kugler	P. T. Kuo	G. Edison
J. Tappert	OGC	S. Monarque
		J. Davis
		H. Berilla
		E. Hickey, PNNL

Accession nos.:

1. Letter to: L. Henry, R. Hill & N. Patterson, Jr.: **ML022140519**
2. Letter to EPA w/Svc List, dated 04/03/02: **ML021060405**
3. Letter to EPA w/Svc List, dated 04/23/02: **ML021140391**
4. Package: **ML022140548**

\*See previous concurrence

Document NameC:\Documents and Settings\d3e672\Local Settings\Temporary Internet  
 Files\OLK35\TuscaroraNation.wpd

OFFICE	PM:RLEP	GE:RLEP	LA:RLEP	SC:RLEP	PD:RLEP
NAME	BZalcman*	JDavis*	HBerilla*	JRTappert* (RLE)	PTKuo*
DATE	07/25/02	07/23/02	07/26/02	07/29/02	07/29/02

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Dominion Generation  
5000 Dominion Boulevard, Glen Allen, VA 23060



February 6, 2001

Ms. Carrie McDaniel, Fisheries Biologist  
National Marine Fisheries Service  
Protected Resources Division  
1 Blackburn Dr  
Gloucester, MA 01930

**Re: Dominion's Surry Power Station Nuclear License Renewal**

Dear Ms. McDaniel:

This correspondence follows our recent telephone conversation regarding nuclear license renewal for Dominion's Surry and North Anna Power Stations, and previous contact with the NMFS office in Hampton, VA (April 2000, January 2001). Please find enclosed for your review and comment, applicable sections of the Draft Environmental Reports for the license renewal application. One is provided for each station though Surry may be the only site in a location of interest.

We intend the application for license renewal to be consistent with requirements of the National Marine Fisheries Service and with the priorities of our communities. As part of the license renewal process, the U.S. Nuclear Regulatory Commission (NRC) requires that applicants identify adverse impacts to threatened and endangered species resulting from continued operation of the facility or from refurbishment activities associated with license renewal. There are no changes in operations or refurbishment activities planned which would invalidate the conclusion we have thus far, that there are no adverse impacts on aquatic species.

As a matter of course, the NRC may request an informal consultation with your agency regarding our actions. The time frame for this NRC request is anticipated to be in the second half of 2001, following our late spring application submittal.

We regard our cooperative relationships with jurisdictional agencies such as yours important in meeting regulatory requirements and shared objectives. Your interest and active participation in our efforts and potentially with the NRC later this year are appreciated. It is our expectation that by contacting you at this point in the process, we can identify any questions needing to be addressed prior to submittal. We respectfully request and appreciate correspondence to that effect, as well as if there are no additional data needed for your concurrence with our conclusion.

Should you have questions regarding any of the enclosed information, please contact me at 804/273-2170 (or [tony\\_banks@dom.com](mailto:tony_banks@dom.com)), or Dr. Jud White at 804/273-2948 (or [judson\\_white@dom.com](mailto:judson_white@dom.com)).

Thank you for your attention to the matters presented herein.

Sincerely,

Tony Banks, MPH, CHMM

Cc: J. W. White, EP&C  
LR file

Enclosures: ER documentation

02-01 ER/NMFS/Str doc 02/06/01



United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Ecological Services  
6669 Short Lane  
Gloucester, VA 23061



May 22, 2002

Mr. Christopher Grimes  
Nuclear Regulatory Commission  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation  
Washington, D.C. 20555-0001

P.T. Kuo

Re: License Renewal for Surry  
and North Anna Power  
Stations, Surry and Louisa  
Counties, Virginia

Mr. Grimes:

The U.S. Fish and Wildlife Service (Service) has received your request for a list of federally listed or proposed endangered and threatened species and designated critical habitat within the area under evaluation for the Surry and North Anna Power Stations license renewal. This letter is submitted in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). Attached are lists of species with federal status and species of concern that have been documented or may occur in the counties where your project is located. These lists were prepared by this office and are based on information obtained from previous surveys for rare and endangered species.

The Service would like to confirm that any further Section 7 consultation necessary for this project, pursuant to the ESA, will be conducted by personnel of the Chesapeake Bay Field Office in Annapolis, Maryland.

If you have any questions or need further assistance, please contact Mr. Eric Davis of this office at (804) 693-6694, extension 104.

Sincerely,

  
for Karen L. Mayne  
Supervisor  
Virginia Field Office

Enclosures

1560147

**SURRY COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus <sup>1</sup>	Bald eagle	LT
<u>PLANTS</u>		
Aeschynomene virginica	Sensitive joint-vetch	LT

**Species of Concern**

<u>INVERTEBRATES</u>		
Speyeria diana	Diana fritillary	G3
Stygobromus araeus	Tidewater interstitial amphipod	G2
<u>VASCULAR PLANTS</u>		
Carex decomposita	Epiphytic sedge	G3
Chamaecrista fasciculata var. macrosperma	Marsh senna	G5T2
Desmodium ochroleucum	Creamflower tick-trefoil	G2G3
Rudbeckia heliopsis <sup>2</sup>	Sun-facing coneflower	G2
Trillium pusillum var. virginianum	Virginia least trillium	G3T2

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the James River.

<sup>2</sup>Surveys needed within 5-miles of Prince George County species location.

March 22, 1999  
 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**ISLE OF WIGHT COUNTY, VIRGINIA  
Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT
<b>Species of Concern</b>		
<u>INVERTEBRATES</u>		
Caecidotea phreatica	Phreatic isopod	G1
Speyeria diana	Diana fritillary	G3
Stygobromus araeus	Tidewater interstitial amphipod	G2
Stygobromus indentatus	Tidewater amphipod	G2G3
<u>NON-VASCULAR PLANTS</u>		
Sphagnum cyclophyllum	Circular leaved peatmoss	G3
Sphagnum macrophyllum var macrophyllum	Large-leaf peatmoss	G3T3
<u>VASCULAR PLANTS</u>		
Carex decomposita	Epiphytic sedge	G3
Litsea aestivalis <sup>1</sup>	Pondspice	G3
Trillium pusillum var. virginianum <sup>2</sup>	Virginia least trillium	G3T2

<sup>1</sup>Survey may be needed along the Blackwater River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**PRINCE GEORGE COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus <sup>1</sup>	Bald eagle	LT
<u>VASCULAR PLANTS</u>		
Aeschynomene virginica	Sensitive joint-vetch	LT

**Species of Concern**

<u>INVERTEBRATES</u>		
Speyeria diana	Diana fritillary	G3
<u>VASCULAR PLANTS</u>		
Chamaecrista fasciculata var. macrosperma	Marsh senna	G5T2
Rudbeckia heliopsidis	Sun-facing coneflower	G2
Trillium pusillum var. virginianum <sup>2</sup>	Virginia least trillium	G3T2

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the James River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

March 22, 1999  
 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**CHARLES CITY COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus <sup>1</sup>	Bald eagle	LT
<u>VASCULAR PLANTS</u>		
Aeschynomene virginica	Sensitive joint-vetch	LT
Helonias bullata <sup>2</sup>	Swamp pink	LT
Isotria medeoloides <sup>2</sup>	Small whorled pogonia	LT

**Species of Concern**

<u>INVERTEBRATES</u>		
Speyeria diana	Diana fritillary	G3
<u>VASCULAR PLANTS</u>		
Chamaecrista fasciculata var. macrosperma	Marsh senna	G5T2
Eriocaulon parkeri	Parker's pipewort	G3
Juncus caesariensis	New Jersey rush	G2
Nuphar sagittifolia	Narrow-leaved spatterdock	G5T2T3
Trillium pusillum var. virginianum	Virginia least trillium	G3T2

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the James River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**CITY OF SUFFOLK, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT

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**Species of Concern**

INVERTEBRATES

Chlorochroa dismalia	Dismal Swamp green stink bug	G2
Speyeria diana	Diana fritillary	G3
Stygobromus araeus	Tidewater interstitial amphipod	G2
Stygobromus indentatus	Tidewater amphipod	G2G3

NON-VASCULAR PLANTS

Sphagnum carolinianum	Carolina peatmoss	G3
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VASCULAR PLANTS

Eriocaulon parkeri	Parker's pipewort	G3
Gentiana autumnalis	Pine-barren gentian	G3
Litsea aestivalis <sup>1</sup>	Pondspice	G3
Rhynchospora pallida	Pale beakrush	G3
Trillium pusillum var. virginianum	Virginia least trillium	G3T2

<sup>1</sup>Survey may be needed along the Blackwater River.

February 28, 2000

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**CITY OF CHESAPEAKE, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
None listed		

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**Species of Concern**

INVERTEBRATES

Euphyes dukesi	Scarce swamp skipper	G3
Pseudopolydesmus paludicolous	A millipede	G1
Stygobromus araeus	Tidewater interstitial amphipod	G2

NON-VASCULAR PLANTS

Sphagnum macrophyllum var. macrophyllum	Large-leaf peatmoss	G3T3
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VASCULAR PLANTS

Trillium pusillum var. virginianum	Virginia least trillium	G3T2
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May 29, 2001

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**CITY OF NEWPORT NEWS, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT

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**Species of Concern**

None documented

August 26, 1999  
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**LOUISA COUNTY, VIRGINIA  
Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>INVERTEBRATES</u> Alasmidonta heterodon	Dwarf wedgemussel	LE

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**Species of Concern**

<u>INVERTEBRATES</u> Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3

February 8, 2001  
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**HANOVER COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT
<u>INVERTEBRATES</u>		
Alasmidonta heterodon	Dwarf wedgemussel	LE
<u>VASCULAR PLANTS</u>		
Aeschynomene virginica <sup>1</sup>	Sensitive joint-vetch	LT
Isotria medeoloides <sup>1</sup>	Small whorled pogonia	LT

**Species of Concern**

<u>INVERTEBRATES</u>		
Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3
Sigara depressa	Virginia Piedmont water boatmen	G1G3
<u>VASCULAR PLANTS</u>		
Chamaecrista fasciculata var. macrosperma <sup>1</sup>	Marsh senna	G5T2

<sup>1</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001  
 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**POWHATAN COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT
<u>INVERTEBRATES</u>		
Pleurobema collina <sup>1</sup>	James spinymussel	LE
<hr/>		
<b>Species of Concern</b>		
<u>INVERTEBRATES</u>		
Lexingtonia subplana	Virginia pigtoe	G1Q
<u>VASCULAR PLANTS</u>		
Isoetes piedmontana	Piedmont quillwort	G3

<sup>1</sup>This species has been documented in an adjacent county and may occur in this county.

February 8, 2001  
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**HENRICO COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus <sup>1</sup>	Bald eagle	LT
<u>VASCULAR PLANTS</u>		
Aeschynomene virginica <sup>2</sup>	Sensitive joint-vetch	LT
Helonias bullata	Swamp pink	LT
Isotria medeoloides <sup>3</sup>	Small whorled pogonia	LT

**Species of Concern**

<u>INVERTEBRATES</u>		
Fusconaia masoni	Atlantic pigtoe	G2
<u>VASCULAR PLANTS</u>		
Chamaecrista fasciculata var. macrosperma <sup>1</sup>	Marsh senna	G5T2
Juncus caesariensis	New Jersey rush	G2
Trillium pusillum var. virginianum	Virginia least trillium	G3T2

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the James River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

<sup>3</sup>This species has been documented in an adjacent county and may occur in this county east of I-295.

May 29, 2001

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**CHESTERFIELD COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus <sup>1</sup>	Bald eagle	LT
<u>INVERTEBRATES</u>		
Alasmidonta heterodon <sup>2</sup>	Dwarf wedgemussel	LE
<u>VASCULAR PLANTS</u>		
Aeschynomene virginica	Sensitive joint-vetch	LT
Rhus michauxii <sup>2</sup>	Michaux's sumac	LE

**Species of Concern**

<u>INVERTEBRATES</u>		
Elliptio lanceolata	Yellow lance	G3
Speyeria diana	Diana fritillary	G3
<u>VASCULAR PLANTS</u>		
Chamaecrista fasciculata var. macrosperma	Marsh senna	G5T2
Desmodium ochroleucum	Creamflower tick-trefoil	G2G3
Trillium pusillum var virginianum	Virginia least trillium	G3T2

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the James River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001  
 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**SPOTSYLVANIA COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>INVERTEBRATES</u>		
Alasmidonta heterodon	Dwarf wedge mussel	LE
<u>VASCULAR PLANTS</u>		
Isotria medeoloides	Small whorled pogonia	LT

**Species of Concern**

<u>INVERTEBRATES</u>		
Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3
Sigara depressa	Virginia Piedmont water boatmen	G1G3
Speyeria idalia	Regal fritillary	G3
<u>NON-VASCULAR PLANTS</u>		
Sphagnum carolinianum	Carolina peatmoss	G3

April 5, 2001  
 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**CAROLINE COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
<i>Haliaeetus leucocephalus</i> <sup>1</sup>	Bald eagle	LT
<u>VASCULAR PLANTS</u>		
<i>Aeschynomene virginica</i> <sup>2</sup>	Sensitive joint-vetch	LT
<i>Helonias bullata</i>	Swamp pink	LT
<i>Isotria medeoloides</i>	Small whorled pogonia	LT

**Species of Concern**

<u>BIRDS</u>		
<i>Aimophila aestivalis</i>	Bachman's sparrow	G3
<u>INVERTEBRATES</u>		
<i>Sigara depressa</i>	Virginia piedmont water boatman	G1G3
<i>Stygobromus indentatus</i>	Tidewater amphipod	G2G3
<u>VASCULAR PLANTS</u>		
<i>Chamaecrista fasciculata</i> var. <i>macrosperma</i> <sup>2</sup>	Marsh senna	G5T2
<i>Desmodium ochroleucum</i>	Creamflower tick-trefoil	G2G3
<i>Eriocaulan parkeri</i>	Parker's pipewort	G3
<i>Juncus caesariensis</i>	New Jersey rush	G2
<i>Sabatia kennedyana</i>	Plymouth gentian	G3

<sup>1</sup>Nesting occurs in this county; concentrated shoreline use has been documented on the Rappahannock River.

<sup>2</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**ORANGE COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
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None documented

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**Species of Concern**

INVERTEBRATES

Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green Floater	G3
Speyeria idalia	Regal fritillary	G3

March 22, 1999

Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**CULPEPER COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT
<u>INVERTEBRATES</u>		
Alasmidonta heterodon <sup>1</sup>	Dwarf wedgemussel	LE

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**Species of Concern**

<u>INVERTEBRATES</u>		
Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3
<u>VASCULAR PLANTS</u>		
Agalinis auriculata <sup>1</sup>	Earleaf foxglove	G3

<sup>1</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001  
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

**FAUQUIER COUNTY, VIRGINIA**  
**Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u>		
Haliaeetus leucocephalus	Bald eagle	LT
<u>INVERTEBRATES</u>		
Alasmidonta heterodon	Dwarf wedgemussel	LE

**Species of Concern**

<u>INVERTEBRATES</u>		
Elliptio lanceolata	Yellow lance	G3
Lasmigona subviridis	Green floater	G3
Speyeria idalia	Regal fritillary	G3
Stygobromus spinosus	Blue Ridge Mountain amphipod	G2G3
<u>VASCULAR PLANTS</u>		
Agalinis auriculata <sup>1</sup>	Earleaf foxglove	G3
Carex polymorpha <sup>1</sup>	Variable sedge	G2G3
Carex schweinitzii <sup>1</sup>	Schweinitz's sedge	G3
Poa paludigena	Bog bluegrass	G3
Pycnanthemum torrei	Torrey's mountain-mint	G2

<sup>1</sup>This species has been documented in an adjacent county and may occur in this county.

May 29, 2001  
 Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

Appendix E

**CITY OF HOPEWELL, VIRGINIA  
Federally Listed, Proposed, and Candidate Species**

<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>	<u>STATUS</u>
<u>BIRDS</u> Haliaeetus leucocephalus	Bald eagle	LT

May 21, 2002  
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
One Blackburn Drive  
Gloucester, MA 01930

Mr. Tony Banks, MPH, CHMM  
Dominion Generation  
5000 Dominion Boulevard  
Glen Allen, VA 23060

MAR 23 2001

Dear Mr. Banks:

This letter is in response to your inquiry on February 6, 2001, requesting information on the presence of any federally listed threatened or endangered species and/or designated critical habitat for listed species in the vicinity of Dominion's Surry Power Station, Glen Allen, Virginia. Dominion Generation is applying for nuclear license renewal as required by the U.S. Nuclear Regulatory Commission (NRC) renewal process. The renewal process requires all applicants to identify adverse impacts to threatened or endangered species that may result from continued operation of the facility or refurbishment activities associated with renewal.

Potential spawning habitat for shortnose sturgeon has been thought to occur in the James River, but there have been no reports of shortnose sturgeon in this river system. However, Atlantic sturgeon, a candidate species under the Endangered Species Act of 1973, has been documented in the vicinity of the proposed project. Nevertheless, no federally listed or proposed threatened or endangered species and/or designated critical habitat for listed species under the jurisdiction of the National Marine Fisheries Service are known to exist in the project area. No further consultation pursuant to Section 7 of the Endangered Species Act of 1973, as amended, is required. If, however, project plans change or new information becomes available that changes the basis for this determination, then consultation should be reinitiated.

Sincerely,

Mary Colligan  
Acting Assistant Regional Administrator  
for Protected Resources

File Code: 1514 - 05(A), nsp



## Appendix E

November 6, 2002

John P. Wolflin, Supervisor  
Chesapeake Bay Field Office  
U.S. Fish and Wildlife Service  
177 Admiral Cochrane Drive  
Annapolis, MD 21401

SUBJECT: BIOLOGICAL ASSESSMENT FOR BALD EAGLES FOR LICENSE RENEWAL  
AT SURRY POWER STATION, UNITS 1 AND 2, AND REQUEST FOR  
INFORMAL CONSULTATION (TAC NOS. MB1992 AND MB1993)

Dear Mr. Wolflin:

The Nuclear Regulatory Commission (NRC) is evaluating an application submitted by Virginia Electric and Power Company (VEPCo) for the renewal of the operating licenses for an additional 20 years for its Surry Power Station (SPS), Units 1 and 2. The SPS is located on the Gravel Neck Peninsula in Surry County, Virginia. The current license for Unit 1 will expire on May 25, 2012, and for Unit 2 on January 29, 2013. License renewal will extend the operating license for each unit an additional 20 years past the above dates. The proposed action would include the continued operation and maintenance of the existing facilities at the SPS site and the transmission corridor that connects the SPS, Units 1 and 2, to the regional electrical grid. The proposed action will not include any new construction or onsite disturbance. The NRC is preparing a supplement to its 1996 "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (NUREG-1437) for this proposed license renewal. As part of the renewal review, we evaluate potential impacts to Federally listed, proposed, or candidate species, as well as designated or proposed critical habitat.

In a letter to the Virginia Field Office of the U.S. Fish and Wildlife Service (FWS) dated January 24, 2002, the NRC staff requested a list of Federally protected species and any critical habitat known from the vicinity of the SPS. In April 2002 the NRC staff issued the draft supplemental environmental impact statement (SEIS) for the license renewal of the SPS, Units 1 and 2. The NRC staff received correspondence from Ms. K. Mayne of FWS, dated May 22, 2002, that provided listed, proposed, or candidate species known from the vicinity of the plant site. The NRC staff also visited the SPS and surrounding areas with Mr. David Sutherland of your staff on May 23, 2002. On July 10, 2002, you provided comments on the NRC staff's draft SEIS. In the draft SEIS, the NRC staff concluded that listed aquatic species would not be adversely affected and that the impacts to threatened or endangered terrestrial species would be small as a result of the proposed action. However, in your letter you requested that the NRC staff prepare a biological assessment (BA) to more fully document the basis for its conclusion with respect to the bald eagle (*Haliaeetus leucocephalus*).

The NRC staff and its contractor, Pacific Northwest National Laboratory, has evaluated the potential impact of the power plant re-licensing on the list of species provided in the May 22, 2002, correspondence. We have prepared the enclosed BA that provides an evaluation of the potential for impact for the bald eagle. The staff has determined that the proposed action is not

J. Wolflin

- 2 -

a major construction activity and that the proposed action will have "no effect" on the bald eagle.

The reasons for our conclusion related to the "no effect" finding for the bald eagle are documented in the enclosed BA. We are placing a copy of the BA in our project files and on our public docket for this license renewal application and are requesting your concurrence with our determination.

Both the July 10, 2002, letter from FWS regarding the SPS and the July 24, 2002, letter regarding North Anna Power Station (North Anna) included a statement about bringing these plants "into compliance with current environmental regulations." The NRC staff is concerned that this statement could lead some readers to believe that VEPCo is not operating these stations in compliance with the regulations. Based on our review, the NRC staff did not find any situations in which the operation of the SPS and North Anna was not in compliance with the regulations.

If you have questions regarding the proposed action, the BA, or the staff's request for concurrence, please contact the environmental project manager, Andrew Kugler, by telephone at 301-415-2828 or e-mail at [ajk1@nrc.gov](mailto:ajk1@nrc.gov).

Sincerely,

**ORIGINAL SIGNED BY**

Pao-Tsin Kuo, Program Director  
License Renewal and Environmental Impacts  
Division of Regulatory Improvement Program  
Office of Nuclear Reactor Regulation

Docket Nos.: 50-280 and 50-281

Enclosure: As stated

cc w/encl.: See next page

## **Evaluation of Potential Effects of the Proposed License Renewal for Surry Power Station, Units 1 and 2, on the Bald Eagle (*Haliaeetus leucocephalus*)**

### **Project Description**

The proposed Federal action is renewal of the operating licenses (OLs) for Surry Power Station (SPS), Units 1 and 2. The current OL for Unit 1 (DPR-32) expires on May 25, 2012, and for Unit 2 (DPR-37) on January 29, 2013. By letter dated May 29, 2001, Virginia Electric and Power Company (VEPCo), the licensee, submitted an application to the U.S. Nuclear Regulatory Commission (NRC) (VEPCo 2001) to renew these OLs for an additional 20 years of operation (i.e., until May 25, 2032, for Unit 1 and January 29, 2033, for Unit 2).

The plant has two Westinghouse-designed light-water reactors, each with a design rating for net electrical power output of 855 megawatts electric (MW[e]). Plant cooling is provided by a once-through cooling system that withdraws and returns water from the James River. The SPS is connected to the transmission system via nine transmission lines, totaling approximately 480 km (300 mi) and covering approximately 2000 ha (5000 ac). A more detailed description of the facility and the local environment can be found in the NRC staff's draft supplemental environmental impact statement (SEIS) for the license renewal of the SPS, Units 1 and 2, previously provided.

Prior consultations with the U.S. Fish and Wildlife Service (FWS) include issuance of a permit to VEPCo under the Migratory Bird Treaty Act (16 USC 703-712) (permit #MB705136-0, expiration date March 31, 2003) for the removal of osprey (*Pandion haliaetus*) nests causing safety hazards (NRC 2002b). The NRC also consulted with FWS on an informal basis regarding threatened and endangered species under Section 7 of the Endangered Species Act (16 USC 1536) by letter dated January 24, 2002, for purposes of this license renewal (NRC 2002a). FWS responded in a letter dated May 22, 2002, (FWS 2002a) and also provided comments on the NRC staff's April 2002 draft SEIS in a letter dated July 10, 2002 (FWS 2002b).

### **Project Area**

The SPS is located in the southeastern part of Virginia, in Surry County, on the south side of the James River, across from Jamestown and Williamsburg, Virginia. The SPS occupies approximately 340 ha (840 ac) on Gravel Neck Peninsula, located approximately 40 km (25 mi) upstream of the point where the James River enters the Chesapeake Bay (Figure 1).

The terrestrial ecosystem of the SPS and vicinity contains communities similar to those of the majority of the Virginia and North Carolina coastal plain. The primary plant community on the SPS site consists of remnants of mixed pine-hardwood forest dominated by loblolly pine (*Pinus taeda*) and white oak (*Quercus alba*) (VEPCo 2001).

The SPS utilizes the James River for main condenser cooling. Approximately 80 fish species are known to inhabit the brackish portion of the river downstream from the SPS and approximately 40 species have been recorded for the freshwater portion of the river upstream (VEPCo 1977).

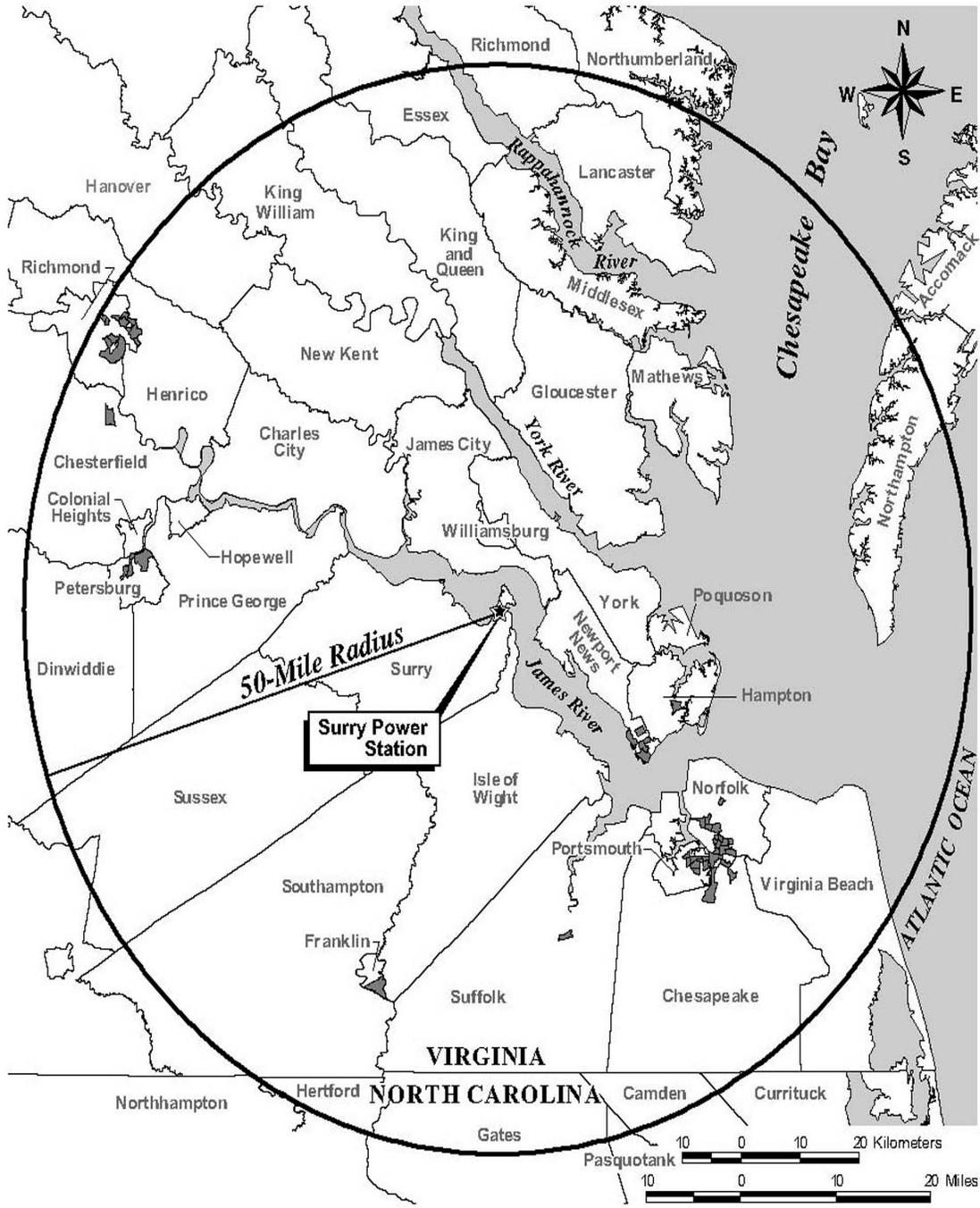


Figure 1. Location of Surry Power Station, 80-km (50-mi) region

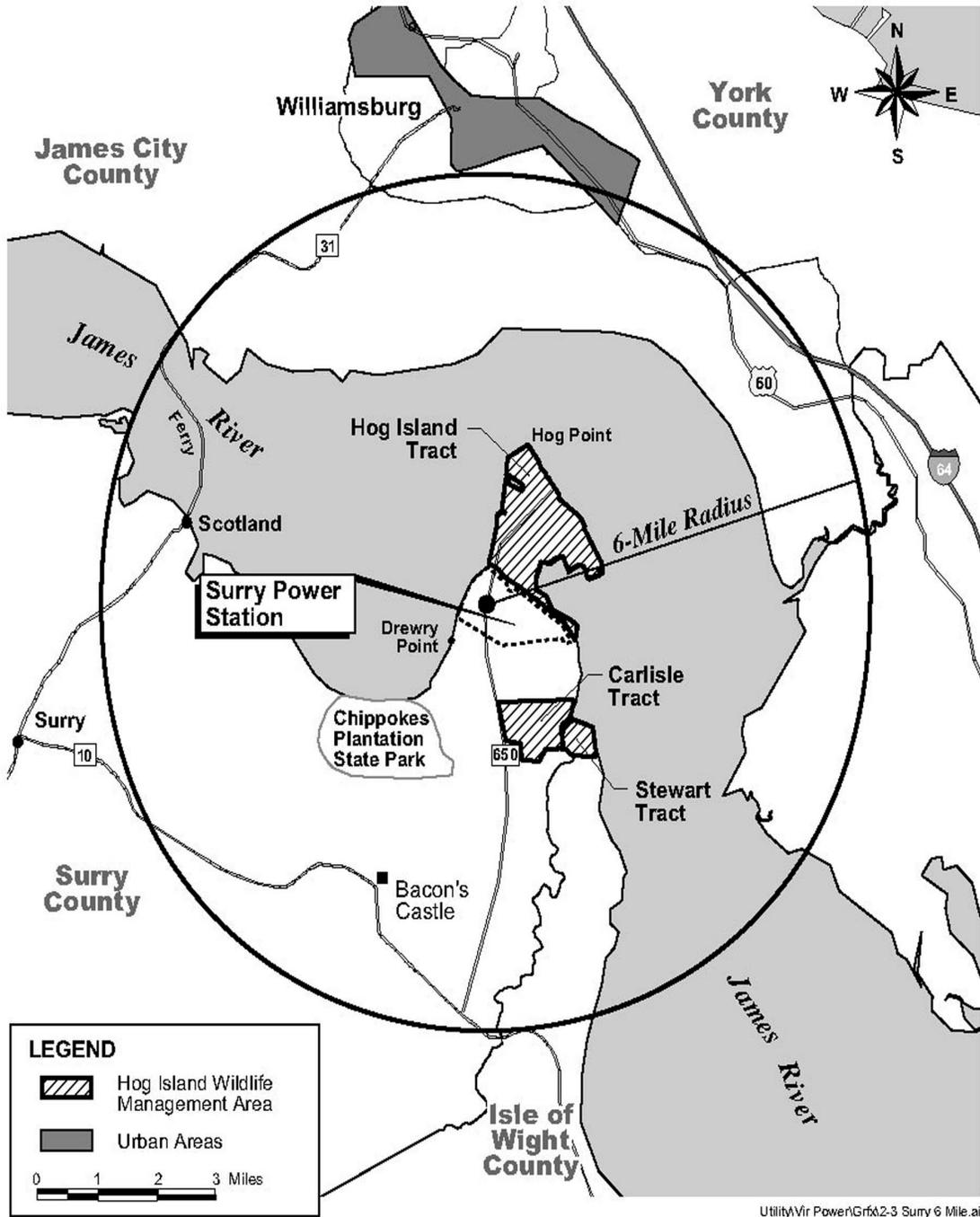


Figure 2. Location of Surry Power Station, 10-km (6-mi) region

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The adjacent Hog Island Wildlife Management Area (HIWMA) consists of three tracts; Hog Island Tract (HIT) (1200 ha [2900 ac]), located adjacent to the northern boundary of the SPS (Figure 2) at the tip of the Gravel Neck Peninsula, and the Carlisle Tract and Stewart Tract (410 ha [1000 ac] total), both located southeast of the SPS (Figure 2). The HIT consists primarily of tidal marshes and diked impoundments interspersed with pine forests. The Carlisle and Stewart Tracts consist primarily of upland forested areas, but also contain tidal marshes. The tidal flats and marshes provide habitat for large numbers of waterfowl. All three tracts of the HIWMA are managed by the Virginia Department of Game and Inland Fisheries (VDGIF) (VEPCo 2001).

The transmission corridors (Table 1, Figure 3) traverse land-use categories typical of coastal Virginia, such as row crops, pasture, pine plantations, and old fields. In addition, the transmission corridors pass through more natural habitat types, such as pine-hardwood forests, bottomland hardwood forests, and shrub bogs. The Suffolk-to-Yadkin transmission corridor traverses a 4-km (2-mi) portion of the Great Dismal Swamp National Wildlife Refuge (Figure 3), where hardwood swamp comprises the transmission corridor habitat. The Chuckatuck-to-Wheaton corridor crosses the James River and a 304-m (1000-ft) portion of the Ragged Island Wildlife Management Area (Figure 3), a 622-ha (1537-ac) tract along the lower James River that consists of brackish marsh and pine-covered islands (VEPCo 2001).

**Table 1.** Surry Power Station Transmission Line Corridors

Substation	Number of Lines (line number)	kV	Approximate Distance		Corridor	Corridor Width		Approximate Corridor Area	
			km	(mi)		m	(ft)	hectares (acres)	
Chickahominy	1 (567)	500	87	(54)	1	46 to 107	(150 to 350)	110	(270)
Chuckatuck	1 (290)	230	39	(24)	2	90 to 137	(295 to 450)	270	(650)
Churchland	1 (226)	230	63	(39)	2	38 to 137	(125 to 450)	92	(230)
Hopewell	2 (212 and 240)	230	85	(53)	1	37 to 107	(120 to 350)	760	(1900)
Septa	1 (578)	500	19	(12)	2	73 to 107	(240 to 350)	200	(500)
Wheaton	1 (214)	230	61	(38)	2	32 to 137	(105 to 450)	72	(180)
Yadkin	2 (223 and 531)	230 500	79 82	(49) (51)	2 1	38 to 137	(125 to 450)	61 330	(150) (820)
Total			480	(300)				2000	(5000)

Source: VEPCo 2001

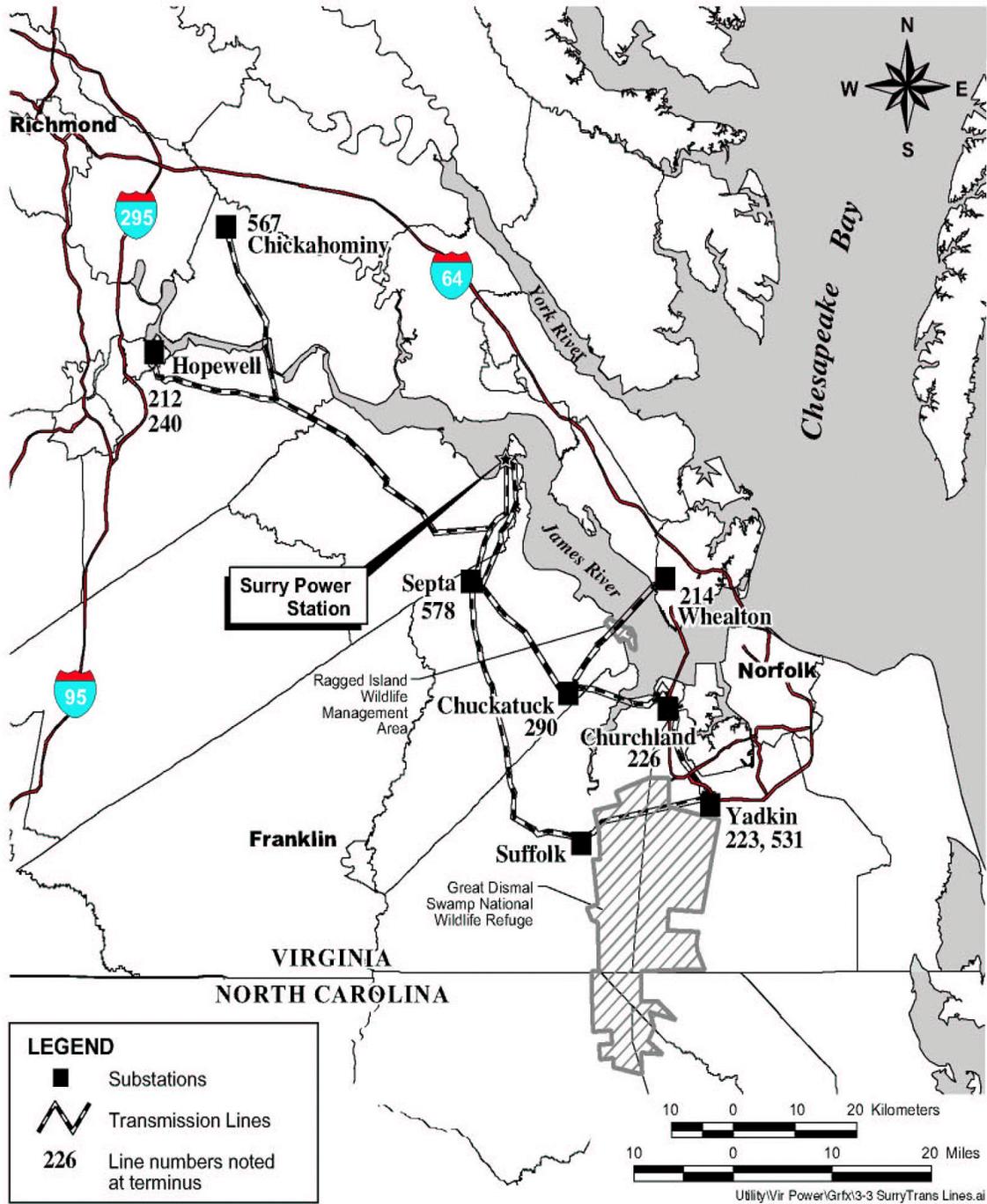


Figure 3. Surry Power Station transmission lines

### **Bald Eagle Use of Surry Power Station Site and Transmission Line Corridors**

The bald eagle (*Haliaeetus leucocephalus*) is the only Federally listed threatened or endangered species currently known to occur on and in the vicinity of the SPS site or along its transmission corridors (VEPCo 2001). Bald eagles generally nest in tall trees near major waterways, such as the James River, and feed on fish, waterfowl, and occasionally carrion.

**Active Nests.** The Center for Conservation Biology at the College of William and Mary in Williamsburg, Virginia, in collaboration with FWS and VDGIF, annually tracks locations of bald eagle nests throughout the Commonwealth. There are four active nests in the vicinity of the SPS site and transmission line corridors (VEPCo 2002a and Watts 2002).

The first nest is located south of the SPS site ~4.0 km (~2.5 mi) and approximately 200 m from the transmission line corridor to the Septa substation. This nest may have been constructed by a pair of eagles that previously nested ~0.8 km (~0.5 mi) closer to the SPS (VEPCo 2002a and Watts 2002). The former nest site no longer exists, since the nest tree has toppled (Watts 2002).

The second nest is located northeast of the SPS site ~1.6 km (~1.0 mi) in the HIT of the HIWMA (VEPCo 2002a and Watts 2002).

A third nest was constructed this year and was reported to be located ~0.4 km (~0.25 mi) west of the SPS site (VEPCo 2002a and Watts 2002) on land behind the site security firing range (VEPCo 2002b). VEPCo's Environmental Policy and Compliance staff biologists, in concert with VDGIF Environmental Services specialists, conducted a search on September 25, 2002, to confirm and ground truth the reported nest location. Their search employed two Global Positioning System (GPS) units, each independently programmed using topographic map coordinates. They searched for several hours, but were unable to find the nest. Consequently, VEPCo and VDGIF staff have concluded that the nest, if it exists, is located further south and west of the SPS site than 0.4 km (0.25 mi). The decision whether to continue the search for this nest has not been made (VEPCo 2002b).

The fourth nest is located east of the town of Hopewell, just east of Windmill Point, adjacent to the south side of the James River approximately 50 m to 100 m from the transmission line corridor to the Chickahominy substation (Watts 2002).

The NRC staff can provide more precise locations for the nests if needed.

**Abandoned Nests.** Formerly, there were several nests located along the boundary of Hog Island, four of which were on the SPS site. These nests have been abandoned for three or more consecutive nesting seasons (Watts 2002). Three of the four nest trees on the SPS site likely still stand, although no evidence of the nests remains. The fourth nest tree on the SPS site has been toppled by wind throw (Watts 2002).

**High Use Areas.** As many as 50 eagles may forage within the HIWMA and vicinity during spring migration (NRC 2002b). However, there are no eagle concentration areas (e.g., roost

sites or shoreline foraging areas, as discussed in the BEPG) currently known to occur on or in the vicinity<sup>1</sup> of the SPS site or along its transmission corridors (VEPCo 2002a and NRC 2002b).

### **Analysis of Effects**

**Basis for Analysis – Bald Eagle Protection Guidelines for Virginia (BEPG).** The BEPG (FWS and VDGIF 2000) prescribe two management zones around eagle nests, night roosts, and shoreline use areas in which the provisions of various laws and their implementing regulations may apply. The two management zones prescribed in the BEPG are “primary” (229 m [750 ft]) and “secondary” (229 m - 400 m [750 ft -1320 ft]) (FWS and VDGIF 2000). The BEPG provided recommendations, excluding certain activities within these zones to preclude take of a bald eagle (FWS and VDGIF 2000).

**Active Nests.** The SPS site is located beyond the secondary management zone buffers of the four active nests. Consequently, the potential for activities at the SPS site to disturb breeding/nesting at these four nest sites is minimal.

The Chickahominy and Septa transmission line corridors lie within the primary management zones of two of the four active nests. Transmission line rights-of-way (ROW) are generally maintained on a 3-year cycle (NRC 2002b). The SPS’s transmission line ROW maintenance practices take into consideration threatened and endangered species, such as the bald eagle, and conform to the BEPG by conducting maintenance activities outside the breeding/nesting season (VEPCo 2002c). Consequently, the potential for ROW maintenance practices to disturb breeding/nesting at these two nest sites is very small.

The SPS operational activities both at the site and within its transmission line corridors are and will remain in conformance with the BEPG for existing and future active nests.

**Abandoned Nests.** The above-mentioned abandoned nests on or in the vicinity of the SPS site have been abandoned for three or more consecutive nesting seasons (Watts 2002), thereby excluding them from the management zone provisions of the BEPG (FWS and VDGIF 2000).

**High Use Areas.** Since there are no known eagle concentration areas (i.e., night roosts or foraging areas) on or in the vicinity of the SPS site or along its associated transmission line corridors (VEPCo 2002a and NRC 2002b), no evaluation of compliance with the pertinent BEPG requirements or the potential for disturbing roosting/foraging activities is provided.

**Electrocution.** Lehman (2001) summarized the literature regarding raptor electrocutions on power lines, and emphasized that nearly all electrocutions in the United States occur on comparatively low-voltage distribution lines supplying individual users and businesses, not transmission lines. For example, the four bald eagle electrocutions in Virginia documented in FWS Law Enforcement files for the period 1989-1991 were all associated with lower voltage 3-phase (three cases) and single-phase (one case) distribution lines (Cline 1992).

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<sup>1</sup> By “vicinity,” the staff means within the 400 m (1320 ft) zone defined in the BEPG.

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The SPS has a rigorous Raptor Incident Reporting (RIR) system. The RIR was developed in collaboration with the VDGIF, Center for Conservation Biology at the College of William and Mary, and FWS. The RIR has a requirement to report all incidents to the local FWS law enforcement section. There are no known records of bald eagle electrocutions at the SPS or on the SPS's transmission lines (VEPCo 2002a).

Based on a review of the circumstances surrounding past electrocutions of bald eagles in Virginia and the lack of any reported electrocutions associated with the SPS's transmission lines, the staff concludes that potential eagle losses due to transmission line-related electrocutions are highly unlikely.

**Collisions.** There are no known reports of bald eagle collisions with the SPS's transmission lines or other SPS structures.

There are no known eagle concentration areas (e.g., roost sites or shoreline foraging areas) currently known to occur on the SPS site or along its transmission line corridors (VEPCo 2002a and NRC 2002b). The nearest known eagle concentration area consists of as many as 50 eagles that forage within the HIWMA during spring migration (NRC 2002b). Because of their acute vision, maneuverability, and the fact that they migrate neither in flocks nor at night, the likelihood of collisions involving these eagles is remote.

### **Conclusion**

Based on the locations of the four active eagle nests relative to the SPS site and associated transmission lines and on the licensee's compliance with the BEPG, the potential for disturbance during nesting/breeding, either from activities at the SPS site or from ROW maintenance, is highly unlikely. Based on the lack of eagle concentration areas near transmission lines, a review of the literature, and the lack of any eagle mortalities associated with the SPS site or its transmission lines, the potential for electrocutions and collisions is also highly unlikely. Consequently, the NRC staff makes a finding of "no effect" to bald eagles for the renewal of the OLs for the SPS, Units 1 and 2.

### **References**

- (1) Cline, K.W. 1992. Bald Eagle Concentration Areas and Power Line Mitigation in Virginia: Final Report. Unpublished report prepared for the U.S. Fish and Wildlife Service, Virginia Department of Game and Inland Fisheries, and Virginia Electric and Power Company. 27 pp.
- (2) Lehman, R.N. 2001. Raptor Electrocution on Power Lines: Current Issues and Outlook. *Wildlife Society Bulletin* 29(3): 804-813.
- (3) Migratory Bird Treaty Act of 1918. 16 USC 703 et seq.
- (4) U.S. Fish and Wildlife Service and Virginia Department of Game and Inland Fisheries. 2000. Bald Eagle Protection Guidelines for Virginia. 6 pp. Updated May 15, 2000.

## Appendix E

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- (5) U.S. Fish and Wildlife Service. 2002a. Letter from Ms. Karen Mayne of the U.S. Fish and Wildlife Service to NRC providing a list of protected species within the area under evaluation for the Surry and North Anna Power Stations license renewal. May 22, 2002.
- (6) U.S. Fish and Wildlife Service. 2002b. General comment letter from Michael T. Chezik, U.S. Fish and Wildlife Service's Chesapeake Bay Field Office, regarding Surry Power Station, Units 1 and 2, license renewal. July 10, 2002.
- (7) U.S. Nuclear Regulatory Commission (NRC). 2002a. NRC letter to Ms. Karen Mayne of the U.S. Fish and Wildlife Service requesting a list of protected species within the area under evaluation for the Surry and North Anna Power Stations license renewal. January 24, 2002.
- (8) U.S. Nuclear Regulatory Commission (NRC). 2002b. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Surry Power Station Units 1 and 2*. NUREG-1437, Supplement 6, Draft Report for Comment, Washington, D.C. April 2002.
- (9) Virginia Electric and Power Company (VEPCo). 1977. *Section 316(a) Demonstration (Type I)* – Surry Power Station – Units 1 and 2. Richmond, Virginia.
- (10) Virginia Electric and Power Company (VEPCo). 2001. *Application for License Renewal for Surry Power Station, Units 1 and 2*, "Appendix E, Environmental Report - Operating License Renewal Stage." Richmond, Virginia.
- (11) Virginia Electric and Power Company (VEPCo). 2002a<sup>1</sup>. Email from T. Banks regarding the location of active bald eagle nests and eagle concentration areas in the vicinity of Surry Power Station and its transmission line corridors. Virginia Electric and Power Company, Surry Power Station, Virginia. September 9, 2002.
- (12) Virginia Electric and Power Company (VEPCo). 2002b<sup>1</sup>. Email from T. Banks regarding the location of active bald eagle nests in the vicinity of Surry Power Station and its transmission line corridors. Virginia Electric and Power Company, Surry Power Station, Virginia. September 27, 2002.
- (13) Virginia Electric and Power Company (VEPCo). 2002c<sup>1</sup>. Email from T. Banks regarding Surry Power Station transmission line right-of-way maintenance practices. Virginia Electric and Power Company, Surry Power Station, Virginia. October 18, 2002.
- (14) Watts, B. 2002<sup>1</sup>. Email from B. Watts, Center for Conservation Biology, College of William and Mary, Williamsburg, Virginia, regarding the location of bald eagle nests in the vicinity of Surry Power Station and its transmission line corridors. October 25, 2002.

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<sup>1</sup> These emails may be found under accession number ML023050100 in the NRC's Electronic Reading Room on the NRC Web Page ([www.nrc.gov](http://www.nrc.gov)).