SURRY POWER STATION (SPS)
SUBSEQUENT LICENSE RENEWAL APPLICATION (SLRA)
DRAFT REQUESTS FOR ADDITIONAL INFORMATION (RAIS)

Air Quality and Meteorology (AQ)

AQ – 1 Provide comparable 2017 data be added to ER Table E3.3-12 as discussed at the audit during the breakout session.

AQ – 2 Confirm whether Dominion received any notices of violation or non-compliances from the Virginia Department of Environmental Quality (VDEQ) regarding Surry Air Permit No. PRO50336 subsequent to the period discussed in ER Section E3.3.3.2.

Aquatic Resources (A)

A – 1 The March 1, 2016, Virginia Pollutant Discharge Elimination System (VPDES) Permit for Surry Power Station and Gravel Neck (permit no. VA0004090) issued by the Virginia Department of Environmental Quality requires Dominion to perform impingement and entrainment characterization studies of the Surry Power Station cooling water intake system. In 2015 and 2016, HDR Engineering, Inc. conducted the required impingement studies, and in 2015 through 2017, HDR Engineering conducted the required entrainment studies. The NRC staff understands that while HDR Engineering has prepared draft final results of these studies for Dominion's preliminary review, the final reports will not be available until Dominion submits those reports to the Virginia Department of Environmental Quality on or before June 3, 2020, in accordance with VPDES permit condition E.3. To assist the NRC staff's assessment of the potential impacts of impingement and entrainment in the absence of these final reports, please provide the following information for each of the two studies.

a. Describe the sampling methods. Include the sampling event date range and frequency, daily collection schedule, targeted organisms, sampling location, sampling gear, sample duration, number of samples per event, total number of samples, and water quality measurements.

b. Summarize the taxa collected. Include in the summary the total number of samples collected, total number of organisms collected, list of all taxa collected, percent total of all taxa collected consisting of 1% or more of samples.

c. Summarize the study findings. Include in the summary the total impingement or entrainment estimates based on actual intake flows, notable similarities and differences from previous impingement and entrainment studies, and a summary of the findings made for each of the selected representative important species.

A – 2 Dominion collects samples of commercially and recreationally important fish and invertebrates as part of its annual radioactive effluent release monitoring in accordance with a permit issued by the Virginia Marine Resources Commission (for instance, see Note 3 on page 62 of the 2017 Annual Radioactive Effluent Release Report (ML18128A192)).

a. Identify the species that the Virginia Marine Resources Commission permits Dominion to sample as part of this monitoring effort.

b. Identify the species that Dominion most commonly collects during such sampling.

c. Confirm that Dominion has not collected Atlantic sturgeon or any other federally listed species as part of this sampling effort.

A – 3 The ER (Section E3.7.5.1 and E3.7.5.2) identifies several species of invasive aquatic plants and animals.

a. Identify which of these aquatic species occur on the Surry site.

b. Explain whether Dominion performs any specific environmental management or maintenance activities related to these species.

Cumulative Impacts (CU)

CU – 1 Section E4.12 of the ER contains Dominion's analysis of cumulative impacts. If Dominion has identified any additional past, present, or reasonably foreseeable projects or actions since the ER was prepared, provide the name, description, location, and status of any such projects. For any newly identified projects, provide a map(s) that show the approximate location(s) and/or routings of the projects.

CU – 2 As referenced in the ER (e.g., Sections E2.2.7.2, E3.6.2.5, E3.7.2.6, and E4.1.2.4), Dominion is developing an offsite dredge material management area (DMMA) as a replacement for Surry's current onsite facility, once the existing facility reaches capacity. Provide the following information (or identify publicly available information as appropriate) regarding this project:

a. The projected remaining capacity and/or lifespan of the existing dredge material pond,
b. A brief summary description of the general design and operational features of the new offsite DMMA, dimensions of completed facility, disposal capacity, acreage to be devoted to dredge materials management, and total acreage of the DMMA site,
c. The status of construction and permitting and when the new DMMA is expected to be available to receive dredged materials,

d. Acreage to be temporarily and permanently disturbed during construction of the DMMA and return pipeline including habitat types affected (i.e., forest, wetlands, farmland),
e. A listing and brief summary of any resource studies that have been performed of the DMMA site (e.g., ecological, geotechnical, archaeological), and,
f. A listing and brief summary of the permits required for construction and operation of the DMMA and their receipt status; include copies of all permits received to date.

CU – 3 Section E2.3 of the ER states in part that Dominion does not anticipate that continued operations of SPS would adversely affect the environment and further does anticipate the need for any refurbishment for purposes of subsequent license renewal. As applicable, provide a brief description of the following: (1) any anticipated operation and maintenance activities with the potential to result in new ground disturbance during the second license renewal term, (2) any plans to demolish existing buildings and or related facilities, and (3) any plans to construct new facilities. Identify the general location(s) of any anticipated operation and maintenance or refurbishment (demolition or construction) activities.

Land Use (LU)

LU – 1 Section E2.2.6 of the ER states that Dominion is currently developing a fourth ISFSI pad within the existing ISFSI area and which is scheduled to be completed by the end of 2020. Provide a brief summary description of the project including general design of the pad, area disturbed, footprint of the completed facility, storage capacity, and current project status.

Section E2.2.6 of the ER also references Dominion's plans to develop a fifth spent fuel storage pad. Provide an update, if any is available, of Dominion's plans for the pad including dimensions and the schedule for siting and constructing the facility. If a site has been selected, identify the location.

LU – 2 Section E9.5.10 of the ER describes Dominion's process for obtaining a consistency certification for SPS subsequent license renewal from the Commonwealth of Virginia in accordance with the Federal Coastal Zone Management Act (CZMA). Dominion developed and submitted to VDEQ a CZMA consistency certification package (Appendix E of the ER). Dominion further states in the ER that VDEQ responded with a "conditional concurrence" on February 2, 2018. VDEQ's February 2nd, 2018 response is contained in Dominion's SLRA Supplement for Sufficiency Review, dated January 29, 2019, submitted to the NRC. Specifically, VDEQ states that its CZMA concurrence is conditional upon satisfaction of the following: "DGIF [Department of Game and Inland Fisheries] input and concurrence on the intake technology and conditions implemented to minimize impacts to fisheries resources and incidental take of endangered species in accordance with Virginia Code §29.1-100 to §29.1-570."

Given the conditional nature of the CZMA certification, describe the steps that Dominion proposes to undertake to complete the CZMA consistency certification process with VDEQ, including the projected timeframe for completion of all anticipated activities requested by VDEQ.

Microbiological Hazards (MBH)

MBH – 1 Regulatory Guide 4.2, Supplement 1, Revision 1 states that, "The applicant should consult the State agency responsible environmental health regarding the potential existence and concentration of…microorganisms in the receiving waters for plant cooling water discharge. The applicant should document the results of this consultation in the ER. The ER should include copies of correspondence with the responsible agency indicating concurrence with the applicant's risk assessment and proposed mitigation strategy, if one is required."

(a.) Describe Dominion's consultation with the State related to microbiological hazards and the State's views of the environmental health risks to the public from thermal effluent in the James River.

(b.) Please submit with this response copies of relevant correspondence between Dominion and the State.

Replacement Power Alternatives (ALT)

ALT – 1 ER Section E7.2.1.1 identifies that the proposed NGCC replacement power plant would be designed to generate approximately 1,743 MWe with an 87% capacity factor to replace Surry's 1,676 MWe. However, ER Section E7.2.3.1 identifies that the same facility would be designed to generate approximately 1,710 MWe, and ER Table E8.0-2 identifies that the facility would be designed to generate a total of 1,926 MWe. Address these inconsistencies as discussed in the audit breakout session.

Further, as discussed in the audit breakout session, clarify how the design capacity and assumed capacity factor of each component of Dominion's proposed combination alternative contribute to replacing the 1,676 MWe generated by Surry. Confirm whether the 1,676 MWe is a gross or net value, and what, if any, capacity factor has been applied.

ALT – 2 Land requirements for a replacement NGCC plant are stated to be 66 acres in ER Sections E7.2.3.1.1 and E7.2.3.3, but 83 acres in ER Table E8.0-2. Explain (reconcile) these differences.

ALT – 3 Provide a summary of the audit breakout session discussion addressing the location(s) on the Surry site that could be suitable for siting replacement power generation.

Socioeconomics (SOC)

SOC – 1 Besides property tax payments, describe any other sizeable annual support payments (e.g., emergency preparedness fees and payments or fees because of the independent spent fuel storage installation), one-time payments, or other forms of non-tax compensation (if any) provided to local governments, agencies, communities, and other jurisdictions, on behalf of SPS.

SOC – 2 Provide updated property tax information, similar to the data provided in Table E3.9-2 of the ER. Include data for years 2017 and 2018, if available.

Special Status Species and Habitats (SSH)

SSH – 1 Please provide an updated table of federally and state-listed threatened and endangered species based on currently available information to replace ER Table E3.7-4, "Federally and State Listed Threatened and Endangered Species…" which relies on 2016 data.

SSH – 2 During the NRC environmental site audit, Dominion personnel explained measures that its personnel take to ensure that potential impacts on the northern long-eared bat are considered prior to site maintenance activities that require tree clearing. These measures are contained in a Dominion guidance document, which Dominion provided for NRC staff review. Please confirm the accuracy of the NRC staff's characterization of Dominion's practices related to tree clearing below related to site maintenance activities and projects that involve (1) hazardous tree removal, (2) existing right-of-way maintenance and expansion, (3) clearing of less than or equal to 10 acres of trees; and (4) clearing of greater than 10 acres of trees that are not in or adjacent to an existing right-of-way.

Hazardous Tree Removal: The U.S. Fish and Wildlife Service's (FWS) Endangered Species Act 4(d) rule for the northern long-eared bat (Myotis septentrionalis) (NLEB) (81 FR 1900) does not prohibit or restrict hazardous tree removal to protect human life or property. Prior to undertaking hazardous tree removal, Dominion documents its determination that the action meets the FWS's definition of hazardous tree removal. Dominion does not specifically coordinate with the FWS for such activities.

Existing Right-of-Way Maintenance and Expansion: The FWS's NLEB 4(d) rule does not prohibit routine maintenance and expansion of up to 100 feet from either edge of an existing right-of-way as long as the project does not occur within 0.25 miles of known hibernacula; does not involve cutting of known maternity roost trees in June or July; and does not involve clear-cutting within 0.25 miles of known maternity roost trees in June or July. Prior to undertaking existing right-of-way maintenance and expansion, Dominion personnel review previously conducted bat surveys in the project area. If surveys have been conducted and those surveys identify no maternity roost trees, Dominion does not coordinate with the FWS prior to undertaking the activity. If no surveys have been conducted in the project area, Dominion coordinates with the applicable

FWS field office or the State resource agency, as appropriate. If known roost trees or hibernacula occur within 0.25 miles of the project area, Dominion does not perform clearing in June or July without prior coordination with the FWS.

Clearing of Less Than or Equal to 10 Acres of Trees: The FWS's NLEB 4(d) rule does not prohibit projects resulting in less than or equal to 10 acres of tree clearing if those projects are outside of certain location restrictions. For such projects, Dominion follows the process described above for existing right-of-way maintenance and expansion prior to undertaking tree clearing.

Clearing of Greater Than 10 Acres of Trees That Are Not In or Adjacent to an Existing Right-of-Way: The FWS's NLEB 4(d) rule prohibits all projects not occurring in or adjacent to an existing right-of-way and resulting in greater than 10 acres of tree clearing that may affect the species. For such projects, Dominion requires its personnel to coordinate with the FWS prior to undertaking such a project. The company recognizes that the FWS will likely require habitat and/or bat surveys (acoustic or mist net) surveys for such projects with clearing planned between April 15 and September 15 if such surveys have not been completed within the past 5 years. If surveys do not identify suitable bat habitat and/or bats on the project site and the FWS agrees with the survey results, Dominion does not restrict clearing to a particular time of year. If surveys identify bats on the project site, Dominion restricts clearing to between September 16 and April 14. Alternately, Dominion may coordinate with the FWS to determine if there are options that would allow clearing in the spring and summer. Dominion recognizes that State resource agencies may have additional requirements related to surveys or development of habitat conservation plans.

SSH – 3 During the NRC environmental site audit, Dominion personnel explained the company has reported the discovery of any injured or dead birds and bats on the Surry site to the U.S. Fish and Wildlife Service since 2009. However, Dominion has not reported any bats of any species as injured or dead from 2009 through present. Please affirm the staff's understanding of this information.

SSH – 4 Does Dominion anticipate any activities during the proposed subsequent license renewal term that could cause increased site noise or vibration levels compared to current operations? If so, please explain such activities and the potential impacts of increased noise and vibration associated with these activities on bats.

SSH – 5 Dominion's January 29, 2019, Supplement to the ER, Enclosure 1, Attachment 1 (p. 14) states: "The potential for dredging operations, shoreline modification, and water pollution to have detrimental effects to [Atlantic sturgeon critical] habitat is controlled and mitigated by regulatory processes and permits." To assist the NRC staff's assessment of the potential impacts of subsequent license renewal on the Atlantic sturgeon, please provide the following information.

a. How frequently does Dominion anticipate performing dredging of the intake

canal during the proposed license renewal period?

b. How often does Dominion anticipate removing debris from the low-level intake structure between now and the end of the proposed license renewal term?

c. Does Dominion plan to perform activities that would result in “shoreline modification” (other than intake channel maintenance dredging or low-level intake structure debris removal) between now and the end of the proposed license renewal period? If so, please describe such activities, their purpose, and anticipated frequency.

11 – Waste Management (WM)

WM – 1 In section E3.6.4.2.1 of the ER Dominion stated that there were three inadvertent onsite liquid radioactive releases estimated to be greater than 100 gallons each. The last inadvertent release referenced in the ER was September 23, 2012. Provide detailed information on this release and the preventive measures implemented. Are there any more recent reportable releases? If any, provide detailed information on the release.

WM – 2 Surry is subject to the reporting provisions of 40 CFR Part 110 as it relates to the discharge of oil in such quantities as may be harmful pursuant to Section 311(b)(4) of the Federal Water Pollution Control Act. Any discharges of oil in such quantities that may be harmful to the public health or welfare or the environment must be reported to the U.S. Coast Guard (USCG) National Response Center. Also, Surry is subject to the reporting provisions of State Water Control Law section 62.1-44.34:19 (Article 11). This reporting provision requires that any release of oil in a quantity of 25 gallons or greater to the environment be reported to the VDEQ, the coordinator of emergency services of the locality that could reasonably be expected to be impacted, and appropriate federal authorities. In sections E3.6.4.2.2, E9.5.3.6, and E9.5.3.7 of the ER, Dominion stated that based on the review of site records from 2012–2017, there was one inadvertent release of approximately eight gallons of glycol-based hydraulic fluid occurred during cleaning of the Unit 2 D service water intake bay. The applicant states that the release was reported to VDEQ and no NOV resulted. Provide detailed information on this release and the preventive measures implemented. Are there any more recent reportable releases? If any, provide detailed information on the release.

Water Resources (WR)

WR – 1 The issue of “radionuclides released to groundwater” looks at the potential contamination of groundwater from the release of radioactive liquids from plant systems into the environment. To address this issue, the DSEIS will need to describe the groundwater system, the extent of contamination, and project the

impacts on groundwater and surface water bodies over the license renewal period (approximately a 30 period of time from the present).

The following groundwater questions are focused on documenting information that can help to describe the extent of contamination, the risk to aquifers, and projecting what might occur over the period of license renewal.

The site obtains its groundwater from the Upper Potomac Aquifer. To help determine if the radionuclides could reach the Upper Potomac Aquifer, a description of the stratigraphy beneath the site is very important.

The U.S. Geological Survey publication titled "Hydrogeologic Framework of the Virginia Coastal Plain", Professional Paper 1404-C. 1988, which is available at https://pubs.usgs.gov/pp/pp1404-C/pdf/pp_1404-c.pdf provides information on aquifers and confining units from a well drilled at Surry (Well 57F26 in the report). Beneath the site, confining units are primarily clay and help to prevent the vertical movement of radionuclides into underlying aquifers, which contain mostly sand.

On page E-3-84 of the environmental report, it is stated that at Surry, the soils are 50 to 80 ft in depth and that they are underlain by 240-270 ft of tough, impermeable clay containing only occasional and limited sand members. The first usable aquifer is encountered at a depth of 320 ft.

However, from the U.S. Geological Survey publication, the first 50 ft of surficial material is identified as the Columbia aquifer. Below 50 ft it provides a different description. With increasing depth, the Columbia aquifer is underlain by (1) the Yorktown confining unit, (2) the Yorktown-Eastover aquifer, (3) the St. Mary's confining unit, (4) the Calvert confining unit, (5) the Chickahominy-Piney Point aquifer, and the (6) Nanjemoy-Marlboro Clay confining unit. At a depth of 320 ft, the Aquia aquifer is encountered. It is underlain by the Upper Potomac confining unit, until the upper Potomac aquifer is reached.

To help to define the hydrostratigraphy beneath the site, please provide:

a. A well log from an onsite well that is representative of the stratigraphy (rock types) from the surface down to the top of the Potomac aquifer.

To determine the extent of vertical contamination by radionuclides and to determine if any aquifers have been contaminated, please document if:

a. The groundwater that contains tritium is believed to be in construction fill or sand?
b. What is the first aquitard (low permeability layer) beneath the fill and sand? What is it made of (e.g., clay, silt, etc.). What is the depth to the aquitard?

To help project the impact of groundwater contamination over the period of license renewal, it is very helpful to understand what actions have been taken

and are planned to address the groundwater contamination. Please briefly describe:

a. Actions taken to prevent the release of radionuclides into the groundwater (i.e., identifying sources, line pipes, etc.).
b. Any plans to restore the groundwater. What has been the experience (effectiveness) of clean up actions to date?

WR – 2 The ER identifies that Dominion has been notified by the Virginia Department of Environmental Quality (VDEQ) that it will require a separate 401 certification for this renewal and that Dominion is coordinating with VDEQ on that process. Relevant to 10 CFR 51.45(d) and as further specified under the Clean Water Act, Section 401, if the applicant has not received Section 401 Certification, the NRC cannot issue a renewed operating license unless the State has waived the requirement.

a.) Has Dominion submitted a 401 Water Quality Certification application to VDEQ with respect to Surry Power Station (SPS) subsequent license renewal application? If so, when was the application submitted?

b.) What is the status of SPS's 401 Water Quality Certification?

c.) Has 401 Water Quality Certification been granted? If so, provide a copy of the Certification.

WR – 3 Table E9.1-1 of the Environmental Report identifies that United States Army Corps of Engineers (USACE) Regional Permit (13-RP-02) expired August 14, 2018 and that the reissuance application is in progress. What is the status of the joint application submitted to the USACE to perform maintenance dredging within the intake channel in the James River and new Dredged Material Management Area? Has the USACE issued a permit to Dominion?

WR – 4 Section E3.6.3.1 and Table E3.6-6 of the ER identify surface water withdrawal values for SPS. Please provide SPS surface water withdrawal for 2018, if available.

WR – 5 Section 9.5.3.9 of the ER identifies that Dominion performs maintenance dredging operation of the intake channel under a USACE Regional Permit and that "[no] other current operations at SPS require a Section 404 permit." However, Table E9.1-1 of the ER identifies that in addition to periodic maintenance dredging of the intake channel in the James River, Dominion conducts debris removal of the low-level intake structure under USACE Nationwide Permit (2012-NWP #3/NAO-2018-00103/VMRC# 18-0069). Provide a brief summary regarding the type of debris removed, how the debris is disposed of (onsite, offsite, etc.) and frequency of debris removal. Include a copy of permit NAO-2018-00103 VMRC# 18-0069 with the response.

WR – 6 Section 9.2 of the ER discusses the status of compliance with various authorizations and Section E3.6.1.2.5 of the ER discusses the compliance history over a six year period (2012-2017) related to SPS wastewater discharges.(a) Provide a brief summary (e.g., actions taken, findings, etc.) of the January 2017 non-compliance report provided to VDEQ related to Enterococci bacteria exceedance referenced in Section E3.6.1.2.5.(b) Identify and describe any SPS VPDES discharge exceedances, as well as any spills, leaks, and other inadvertent releases (e.g., petroleum products, chemicals) since 2017.(c) Identify and describe any Notices of Violation (NOVs); nonconformance notifications; or infractions received from regulatory agencies associated with VPDES permitted discharges, received since 2017. Include self-reported violations.

WR – 7 Section E2.2.3.2 of the ER discusses thermal effluent dispersion for the discharge canal. The ER states: “During a period of high ambient water temperatures (August 6 to September 10, 1975) when SPS was running at 90% or greater capacity, discharge temperatures ranged from 92.8°F to 99.9°F. These temperatures are believed to be typical of those observed in the discharge canal in late summer when both SPS units are operating at or near full power (Reference: SPS. 2001, Section 3.1.2.1). There are no changes since the 2010 uprate. Temperatures immediately outside the discharge canal in the James River are lower, with the effluent losing 1-2°F with every 1,000 feet from the mouth of the discharge canal (Reference: SPS. 2001, Section 3.1.2.1).”

Section E3.6.3.1 of the ER states: “After passing through the condensers and the service water system, most of the water is returned to the James River. Less than 22,000 gpm is lost to evaporation, approximately 1% of the initial intake. (VDEQ. 2013a).”

In a Clean Water Act 316(b) demonstration for SPS, the maximum temperature rise of water across the condensers was reported to be 7.8 °C (VEPCO 1980; ML020230042).

The thermal studies, evaporation rate, and maximum temperature rise of water across the condensers do not account for any additional thermal loading as a result of SPS 2010 power uprate.

(a) Provide a basis for concluding the 1975 high ambient water temperatures recorded are representative of the discharge canal in late summer under current SPS operating conditions.

(b) Provide a basis for concluding there have been no changes in discharge temperatures (both in the canal and James River). If current discharge temperatures are available (in the discharge canal or James River), please provide these and identify the location where the temperatures were taken (e.g., in the discharge canal, in the James River at a certain distance from the discharge canal, etc.).

(c) Provide a basis for concluding the analysis of thermal impact on aquatic organisms (Section E4.6.2 of the ER), which relies on the 1970s thermal studies, are applicable to current thermal conditions.

(d) Has there been a change (increase or decrease) in evaporation under current operating conditions of SPS? If so, please discuss. If there has been no change, provide a basis for concluding that approximately 22,000 gpm of water withdrawals from the James River is lost to evaporation under current operating conditions.

(e) Has there been a change (increase or decrease) in the temperature rise of water across the condensers under current operating conditions of SPS and as a result of SPS power uprates? If so, please discuss. If there has been no change in maximum temperature rise of water across the condenser under current SPS operating conditions, provide a basis for concluding this.

WR – 8 The initial license renewal ER (submitted to the NRC in 2001) identifies that typical salinities in the area of the SPS intakes are up to 17.0 parts per thousand, while those in the area of the SPS discharge canal are typically lower at 0.0 to 9.2 parts per thousand. Have there been changes in salinities in the James River specifically in the immediate vicinity of SPS's intake and discharge points since 2001? As a part of the explanation, provide salinities in the James River at SPS's intake and discharge points, if available, under current operating conditions.

WR – 9 Section E2.2.3.5 of the ER identifies that water for firefighting is obtained from 2 300,000-gallon water storage tanks that "are supplied from two wells (SPS. 2016a, Section 9.10.2.2.1)." However, Section E3.6.3.2 of the ER states that there are 3 wells that discharge into a common header that provides water to the two 300,000 gallon fire protection tanks: "Wells B, C, and ER discharge into a common header that provides water to the two 300,000-gallon fire protection tanks (Well E was abandoned and replaced with Well ER in 2015)." Clarify the apparent discrepancy regarding the number of wells that supply the 300,000 gallon water storage tanks.

WR – 10 Section E2.2.3 of the ER states "Cooling water is withdrawn from the James River through a channel dredged in the riverbed between the main river channel and the eastern shore of Gravel Neck Peninsula, a distance of approximately 5,700 feet. Dominion has typically dredged this channel every 3-4 years to maintain a depth of approximately 13 feet (Section E2.2.7.2)." Section E3.6.1.2.4 of the ER states "Dominion regularly performs maintenance dredging of the intake channel. Dredging occurs as needed and is permitted under a USACE 13-RP-02 Regional Permit 2 authorizing the dredging of a 2,000-foot long by 150-foot wide channel." Section E2.2.7.2 further states: "Dominion has dredged approximately 150,000 cubic yards from this channel every 3-4 years. During maintenance dredging within the existing intake channel on the James River (October 2016-January 2017), approximately 41,544 cubic yards were

hydraulically dredged to a depth of 12 feet mean lower low water within a 2,000-foot long by 150-foot wide channel."

(a) Regarding the 5,700 ft distance discussed in Section E2.2.3 of the ER, clarify what this distance is referring to. Provide the length of the channel that is typically dredged, as discussed during NRC's environmental audit.

(b) Clarify the depth that the intake channel is maintained at.

(c) Clarify if 150,000 cubic yards is the permitted limit and provide the range of typical dredged volumes.

(d) Discuss how dredge material from the intake channel has been transported to the current onsite dredge material management pond.

Various Document Requests (VAR)

VAR – 1 Please provide the following documents:

Dominion Energy. 2019. Letter from Jason E. Williams, Director Environmental, to Joseph Bryan, Department of Environmental Quality. RE: Dominion Energy-Surry Power Station VPDES Permit No. VA0004090 CWIS – 2018 Annual Certification and Effectiveness of Control Measures. 3 p. January 23, 2019.

Dominion Energy. 2018. Letter from Jason E. Williams, Director Environmental, to Emilee Adamson, Department of Environmental Quality. RE: Dominion Energy-Surry Power Station VPDES Permit No. VA0004090 CWIS – 2017 Annual Certification and Effectiveness of Control Measures. 4 p. January 29, 2018.

CH2MHill. 2006. Draft Comprehensive Demonstration Study. Surry Power Station. Revision 1. November 17, 2006.

EA Engineering, Science, and Technology, Inc. 2007. Entrainment Characterization Report; Surry Power Station, June 2005–May 2006. Final Report. August 2007.

HDR. 2016a. Draft Entrainment Characterization Study Plan. Prepared for Dominion Services. Inc. May 29, 2016.

HDR. 2016b. Draft Impingement Characterization Study Plan. Prepared for Dominion Services. Inc. May 29, 2016.

HDR. 2017. 2015-2016 Impingement Characterization Study Report, Draft Final. Surry Power Station, VPDES Permit VA0004090. April 3, 2017.

USFWS. 2015c. Email correspondence from S. Hoskin, USFWS, to M. Overton, Dominion Energy. December 9, 2015.

VDEQ. n.d.VPDES Permit Fact Sheet. VA0004090. Surry Power Station & Gravel Neck. No date. (Include Attachment B to the fact sheet).

VEPCo. 1977. Section 316(a) Demonstration (Type L); Surry Power Station – Units 1 and 2. Submitted to the Virginia State Water Control Board. Richmond, Virginia.