November 17, 2016

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555 Serial No. 16-417 NRA/DEA R1 Docket Nos. 50-280/281 License Nos. DPR-32/37

VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION UNITS 1 AND 2 REEVALUATED SEISMIC HAZARD MITIGATING STRATEGIES ASSESSMENT REPORT

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References:

- NRC Letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012 [ADAMS Accession Nos. ML12056A046 and ML12053A340]
- 2. NEI 12-06, Revision 2, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, December 2015 [ADAMS Accession No. ML16005A625]
- JLD-ISG-2012-01, Revision 1, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, February 2016 [ADAMS Accession No. ML15357A163]
- VEPCO Letter, "Surry Power Station Units 1 and 2, Response to March 12, 2012 Information Request – Seismic Hazard and Screening Report (CEUS Sites) for Recommendation 2.1," dated March 31, 2014 (Serial No. 14-134) [ADAMS Accession No. ML14092A414]
- NRC Letter, "Surry Power Station, Unit Nos. 1 and 2 Staff Assessment of Information Provided Pursuant to Title 10 of the Code of Federal Regulations Part 50, Section 50.54(f), Seismic Hazard Reevaluations for Recommendation 2.1 of the Near-Term Task Force (NTTF) Review of Insights from the Fukushima Dai-ichi Accident and Staff Closure of Activities Associated with NTTF Recommendation 2.1, "Seismic" (TAC Nos. MF3953 and MF3954)," dated December 15, 2015 [ADAMS Accession No. ML15335A093]

The purpose of this letter is to provide the results of the assessment performed for Surry Power Station, Units 1 and 2, to determine if the FLEX strategies that were developed, implemented, and maintained in accordance with Nuclear Regulatory Commission (NRC) Order EA-12-049 can be implemented considering the impacts of the reevaluated seismic hazard. The assessment was performed in accordance with the guidance provided in Appendix H of NEI 12-06, Revision 2 (Reference 2), which was endorsed by the NRC in Reference 3.

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Serial No. 16-417 Docket Nos. 50-280/281 Page 2 of 3

On March 12, 2012, the NRC issued Reference 1 to all power reactor licensees and holders of construction permits in active or deferred status. Enclosure 1 of Reference 1 requested each addressee in the Central and Eastern United States (CEUS) to submit a Seismic Hazard and Screening Report (SHSR). The SHSR submitted for Surry Power Station (Reference 4) provided the reevaluated seismic hazard information, including a performance-based Ground Motion Response Spectrum (GMRS). Reference 5 documents the NRC staff's conclusion that the GMRS submitted for Surry Power Station adequately characterizes the reevaluated seismic hazard for the site. Reference 5 also documents the NRC staff's conclusion that the GMRS is essentially bounded by the Safe Shutdown Earthquake (SSE) with a negligible exceedance over a narrow band in the 1 to 10 Hz frequency range and minimal exceedance for frequencies above 10 Hz such that no further action is required in response to Reference 1.

Consistent with Reference 2, Appendix H, Section H.4.1, no further seismic evaluations are necessary for Surry Power Station Units 1 and 2 since: 1) the reevaluated seismic hazard for the site is essentially bounded, with only minimal exceedances, by the SSE spectrum at frequencies 1 Hz and greater, and 2) the FLEX strategies can be implemented as designed.

If you have any questions regarding this information, please contact Diane E. Aitken at (804) 273-2694.

Sincerely,

Dan Dotto

Daniel G. Stoddard Senior Vice President and Chief Nuclear Officer Virginia Electric and Power Company



COMMONWEALTH OF VIRGINIA

COUNTY OF HENRICO

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Daniel G. Stoddard, who is Senior Vice President and Chief Nuclear Officer of Virginia Electric and Power Company. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this <u>177</u> day of <u>November</u>, 2016. <u>May 31, 2018</u> My Commission Expires:

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Commitments made in this letter: No new regulatory commitments.

Serial No. 16-417 Docket Nos. 50-280/281 Page 3 of 3

cc: U.S. Nuclear Regulatory Commission, Region II Regional Administrator Marquis One Tower 245 Peachtree Center Ave. NE Suite 1200 Atlanta, Georgia 30303-1257

7

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NRC Senior Resident Inspector Surry Power Station