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Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426



Serial No. F10-006

Project No. 6335-VA/ NID No. VA83005
North Anna Hydroelectric Project
Increase in Lake Anna Level Associated with Proposed North Anna Unit 3

Dear Ms. Bose:

On July 8, 2010, Dominion representatives spoke with Charles Wagner (Atlanta Regional Engineer) and members of his staff about a revision to Dominion's Combined License Application (COLA) for a proposed third reactor (Unit 3) at the North Anna Power Station. The COLA revision was submitted to the Nuclear Regulatory Commission (NRC) by letter dated June 28, 2010 and among other changes described a plan to increase the level of Lake Anna. (Versions of the COLA had been submitted to NRC in 2007, 2008 and 2009 and the 2009 version first discussed Dominion's plan.)

In particular, and of interest to the Federal Energy Regulatory Commission (FERC), we discussed the revisions to the COLA that involved Dominion's plan to raise the normal pool level of Lake Anna by three inches concurrent with future operation of Unit 3. Although Dominion has not made a final decision to construct a new unit, in order to resolve this matter and as Mr. Wagner requested, we are providing you with this letter and requesting your written confirmation as discussed below.

The lake level rise will not occur unless and until the proposed Unit 3 is licensed and constructed. The actual change in operating procedures to produce the three-inch increase in normal pool level would not be in effect until approximately 12 months prior to commercial operation of Unit 3, currently estimated as 2019. The purpose of increasing the lake level is to address concerns raised by state agencies regarding potential downstream impacts associated with additional water withdrawal for operation of Unit 3. These agencies include the Virginia Department of Game and Inland Fisheries, the Virginia Department of Environmental Quality, and the Virginia Department of Conservation and Recreation, all of which concur with the plan to raise the lake level by three inches.

Specifically, the recent COLA revision provides updated information about the design of Unit 3 and additional analysis concerning the three-inch normal pool level increase. Dominion would amend its operating procedures for the Lake Anna Dam to achieve this increase from the current 250 feet msl to 250.25 feet msl. (These elevations are associated with the National Geodetic Vertical Datum 1929 (NGVD29).) Information describing the basis for the normal pool level increase and supporting analysis is provided in an enclosure.

Dominion's compliance with FERC regulations and the terms and conditions of the North Anna Hydroelectric Project's exemption from licensing (Subpart K) would remain unchanged by the minor operational changes required to implement the three-inch increase in normal pool level. The minimum flow releases from the Lake Anna Dam also would remain unchanged in accordance with applicable state requirements.

Based on this information, and with the concurrence of state resource agencies, Mr. Wagner and his staff agreed that the proposed three-inch increase in normal pool level would not require an amendment of Dominion's exemption from licensing for the North Anna Hydroelectric Project. Dominion requests that FERC provide written confirmation that the planned change to the dam operating procedures to implement the three-inch increase in normal pool level is consistent with the terms and conditions of the Project's exemption from licensing and requires no further action from FERC.

If you have questions concerning this submittal or need additional information, please contact Michael P. Whalen at (540) 894-2572.

Very truly yours,



Eugene S. Grecheck

Enclosure: Basis for Normal Pool Level Increase

cc with enclosure:

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Unit 3 Project Description

Dominion is proposing to construct and operate a new nuclear power electrical generation unit at the existing two-unit North Anna Power Station in Louisa County, Virginia. In 2007, Dominion received an Early Site Permit from NRC indicating the site was suitable for development of Proposed Unit 3. Dominion filed a Combined License Application (COLA) to construct and operate Unit 3 with the NRC in 2007. The most recent revision to the COLA was submitted in late June 2010. The Company has not yet made a final commitment to build Unit 3.

The existing two nuclear power electrical generation Units 1 and 2 use water from Lake Anna for cooling in an open-cycle (once-through mode). The adjacent Waste Heat Treatment Facility (WHTF) consists of three cooling lagoons, separated from Lake Anna by dikes, which dissipate heat from the discharged water prior to its reentry into the Lake at Dike 3 upstream of the Lake Anna Dam. The proposed nuclear power electrical generation Unit 3, currently under review by the NRC, would use a hybrid wet-dry cooling tower system (closed-cycle mode). Blowdown from the cooling towers also would be discharged through the WHTF. Minimum flow releases from the Lake Anna Dam, including drought contingency measures, are regulated by the Virginia Department of Environmental Quality (VDEQ) in the station's Virginia Pollutant Discharge Elimination System (VPDES) permit.

Instream Flow Incremental Methodology (IFIM) Study

The 2007 Early Site Permit (ESP) contained Condition 3.1(2), which required Dominion to conduct a comprehensive instream flow incremental methodology (IFIM) study, in cooperation and consultation with the Virginia Department of Game and Inland Fisheries (VDGIF) and the VDEQ, to address potential impacts of proposed Unit 3 on fish and other aquatic resources in Lake Anna and downstream of the Lake Anna Dam.

The IFIM study concluded that while the water withdrawal associated with operation of Unit 3 would increase the projected frequency of low flow conditions downstream, increasing the normal pool level in Lake Anna by three inches would mitigate those impacts and better protect river aquatic habitat and recreation, particularly during dry periods. The results of the IFIM study showed that a three-inch increase in normal pool elevation would maintain lake water surface elevation above existing conditions approximately 75 percent of the time. Wetland impacts associated with the three-inch increase, which would involve a temporary loss of function expected to stabilize over time, will be reviewed by the VDEQ and/or U.S. Army Corps of Engineers. The VDEQ will continue to regulate minimum flow releases from the Dam, and associated drought contingency measures, in accordance with state permitting requirements.

Probable Maximum Flood (PMF) Analysis

A Final Safety Analysis Report (FSAR) and Environmental Report (ER) were prepared and submitted to the NRC with the COLA in 2007. The FSAR references a previously submitted Site Safety Analysis Report (SSAR) for the Unit 3 site submitted as part of the Early Site Permit Application (ESP) in 2003. The Lake Anna probable maximum flood (PMF) analysis was performed in support of the ESP with the starting normal pool level at 250.0 msl and re-analyzed for the COLA assuming a starting level of 250.25 ft msl. The three-inch increase in starting level resulted in no change in maximum still water level at the dam.

Conclusion

Pending state and federal regulatory approval and concurrent with future operation of Proposed Unit 3, Dominion intends to implement an increase in the normal pool level in Lake Anna of three inches to achieve a new target pool elevation of 250.25 ft msl. This new target normal pool level would be achieved through minor operational changes to the station's dam operating procedures prior to Unit 3 beginning operation. The actual change in operating procedures to produce the three-inch increase in normal pool level would not be in effect until approximately 12 months prior to commercial operation of Unit 3, currently estimated as 2019. Water levels over 30 years of operation have shown fluctuations within plus or minus 6-12 inches of the normal pool elevation. Thus, the three-inch increase in normal pool elevation is well within the range of typical historical fluctuations.