

BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

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Re: Federal Consistency Certification for North Anna Early Site Permit; Coastal Zone Management Act

Dear Ms. Irons:

On behalf of the Blue Ridge Environmental Defense League, I write to comment on Dominion Nuclear's certification of consistency dated March 18, 2005 submitted to the Virginia Department of Environmental Quality and to request a public hearing on this certification. I understand that Virginia DEQ is reviewing an application for an Early Site Permit (ESP) for construction of two or more additional nuclear reactors on Lake Anna to determine whether this action would be consistent with the Virginia Coastal Resources Management Program and the federal Coastal Zone Management Act.

According to the draft environmental impact statement that the Nuclear Regulatory Commission released on Dominion's application, an "ESP is a Commission approval of a site or sites for one or more nuclear power facilities." (1) The issuance of the ESP signifies that the Lake Anna site is – from a safety and environmental standpoint – “suitable for the construction, and operation, of new nuclear power generating facilities.” (2)

However, Dominion mischaracterizes the nature and significance of the ESP decision in an attempt to limit the scope of DEQ's coastal zone review to preliminary site preparation activities. The company's consistency certification states:

An ESP is not an approval to construct or operate such plants and Dominion is not proposing to construct or operate new nuclear plants. The purpose of an ESP is to determine whether a proposed site is suitable for new units before incurring the substantial additional time and expense of designing and seeking approval to construct and operate such facilities. (3)

Dominion is proposing to construct and operate new nuclear power plants. On September 23, 2003 the company submitted an application to the Nuclear Regulatory Commission for an Early Site Permit at the North Anna Power Station. Approval of the applicant's request would reserve

1803 acres at North Anna Power Station for the construction of two or more additional nuclear reactor units, to be designated North Anna Units 3 and 4. According to Dominion Nuclear's Site Safety Analysis Report, "Each unit would consist of a plant of one or more modules that would not exceed 4300 MWth (megawatts-thermal) of nuclear generating capacity." (4) At present, Dominion operates two pressurized water reactor units each rated at 2893 MWth. In its request, Dominion seeks a permit to add 8600 MWth of new power generating capacity. Plainly, Dominion intends to build and operate new nuclear power plants on Lake Anna.

The ESP is the NRC's official determination that two additional nuclear reactors can be built and operated at the Lake Anna site without undue environmental impacts. Consequently, when the state reviews the ESP application for consistency with the Coastal Zone Management Act, it is essential that its assessment include the potential impacts on coastal resources from construction and operation of the new reactors, not just the impact from limited site preparation activities.

Coastal Resource Impacts

Water demand for Unit 3 proposed for North Anna would be 1,140,000 gallons per minute, primarily for use in condenser cooling in a once-through system. Waste heat would be transferred to Lake Anna in this process causing "consumptive use" of water. According to the draft EIS, "The elevated temperature of the discharged water would result in induced evaporative losses, which would be in addition to the natural (ambient) evaporative losses from the lake." (5) Dominion's term for this process is WHTF, a waste heat treatment facility, which is in reality a large part of Lake Anna.

These reductions in water releases to the North Anna River could have a number of impacts that would conflict with the enforceable policies of Virginia's Coastal Resources Management Program. For instance, reduced flows in the North Anna River could adversely impact anadromous fish habitat, thereby directly affecting Virginia's coastal zone by impacting the state's management of its coastal fisheries. Many species rely on substantial flows for their spawning and early life stages during the typically drier seasons of the year (July through October). (6) If periods during which water releases are reduced increase during this critical time of year, the result could adversely impact many anadromous fish species in the North Anna River and the Pamunkey River.

Additionally, increased water temperatures from heated wastewater discharge could also impact aquatic habitat and fish populations in the lake. As DEQ has pointed out, "[i]t is likely that a small increase in reservoir water temperature would have a dramatic effect, further reducing already limited habitat and perhaps jeopardizing the entire striped bass fishery." (7) Consequently, VDEQ should thoroughly explore potential impacts to aquatic habitat and fish populations both within Lake Anna and downstream in the North Anna and Pamunkey Rivers to ensure that a CZMA consistency certification would not affect coastal fisheries management.

Additional water withdrawals from the lake, increased discharges of heated wastewater to the lake, and the corresponding reductions in releases from the dam could also impact recreational

uses. Lower lake levels in Lake Anna impairs recreational boating, while increased temperatures can affect fishing and swimming. Reduced water levels in the North Anna River may affect fishing and boating downstream as well.

Finally, as reflected in the DEIS, municipalities downstream from Lake Anna are considering whether the North Anna and Pamunkey Rivers could serve as sources for drinking water. (8) This is another use that would be potentially affected by reduced flows due to evaporation.

The ESP would represent the NRC's final decision on site suitability issues such as the potential impact of thermal discharges and reduced flows on fish and other aquatic organisms in Lake Anna and downstream through the North Anna River into the Pamunkey. The NRC would not revisit these environmental impacts during its review of construction permits or operating licenses for North Anna unless there was significant new information about such impacts not currently available.

North Anna ESP is Within Coastal Zone Jurisdiction

Dominion incorrectly contends that the existing power plant and the proposed ESP is not located within Virginia's Coastal Zone. Dominion asserts:

The NAPS site is located on a peninsula on the southern shore of Lake Anna and is not within the Virginia coastal zone. However, Spotsylvania County, located across Lake Anna from NAPS, is within the coastal zone and, due to its proximity, future activities at the North Anna ESP site could affect it. (9)

However, Lake Anna is located partly in Spotsylvania County. The county line with Louisa County runs underwater in the middle of the lake along a crooked course following the original stream bed. (See attached map.)

Moreover, according to Dominion, the Waste Heat Treatment Facility part of Lake Anna is "a part of the North Anna Power Station facility." In response to legal briefs filed by Blue Ridge Environmental Defense League et al before the Atomic Safety and Licensing Board, NRC staff contend that "Virginia Power owns the land, above and below the surface, around the lake, up to the 255-foot high-water mark above mean sea level." (10) If, indeed, Dominion-Virginia Power owns all the land under Lake Anna as the NRC has argued, it stands to reason that the North Anna Power Station is, indeed, within the Virginia coastal zone which includes Spotsylvania County's portion of the lake.

Preliminary Construction Activities Must Be Subject to Review

Dominion seeks to curtail the scope of DEQ's consistency review by limiting it to impacts from the preliminary construction activities that the ESP would authorize. Dominion's proposed certification states that "[t]he current certification is limited to the construction activities that would be permitted under the early site permit, and State concurrence will not constitute any

determination concerning the acceptability of operational impacts.” (11) Yet, that is exactly what the ESP represents a determination that the site is environmentally suitable for operation of additional nuclear reactors.

Preliminary activity permitted by the ESP would include major construction. Dominion’s ESP would be a partial construction permit. Many activities at the proposed plant site would be permitted upon approval of the ESP by the Nuclear Regulatory Commission. Site preparation activities allowed under the ESP include clearing and grading for roads; construction of warehouses, utilities and concrete mixing plants; excavations for facility structures; sewage treatment plants; and “structures systems and components” such as intake and discharge structures, water lines, and cooling towers. DEQ should take a hard look at these activities and their impacts.

Cumulative Impacts Must Be Considered

Dominion’s consistency certification is inconsistent with the National Environmental Policy Act, which requires consideration of cumulative impacts and connected actions. The ESP permit and the pending Combined License are “connected” actions as defined in the Council on Environmental Quality regulations at 40 CFR 1508.7.

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The Nuclear Regulatory Commission as a federal agency is bound by many federal laws regulating environmental quality:

The regulations in this subpart also address the limitations imposed on NRC's authority and responsibility under the National Environmental Policy Act of 1969, as amended, by the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500, 86 Stat. 816 et seq. (33 U.S.C. 1251 et seq.) In accordance with section 511(c)(2) of the Federal Water Pollution Control Act (86 Stat. 893, 33 U.S.C 1371(c)(2)) the NRC recognizes that responsibility for Federal regulation of nonradiological pollutant discharges into receiving waters rests by statute with the Environmental Protection Agency. (12)

Further, the Nuclear Regulatory Commission is restricted by the Coastal Zone Management Act which stipulates compliance in no uncertain terms:

Any Federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with the enforceable policies of approved state management programs. (13)

All potential impacts from construction and operation of the additional nuclear reactors at North Anna should be examined before DEQ considers certifying the consistency of the ESP with the Coastal Zone Management Act.

Thank you for the opportunity to submit these comments.

Respectfully submitted,

Louis Zeller

References

- (1) DEIS at p. 1-1.
 - (2) DEIS at p. iii (emphasis added).
 - (3) Dominion Nuclear North Anna Federal Consistency Certification for North Anna Early Site Permit, March 18, 2005, page 1
 - (4) ESP Application Part 2-Site Safety Analysis Report, Section 1.2.2, page 2-1-3, Sept. 2003
 - (5) *Draft EIS for an Early Site Permit at the North Anna ESP Site*, November 2004, Section 3.2.1.1 Plant Water Consumption, page 3-5
 - (6) Dean Fowler, Virginia Department of Game and Inland Fisheries. *An Analysis of Fish Abundance and Flow Patterns in the North Anna River, Virginia*. June 18, 2004.
 - (7) February 10, 2004 letter from E. Irons, VDEQ, to Pamela F. Faggert, Dominion, at p. 6.
 - (8) DEIS at page 2-23
 - (9) DNNA Federal Consistency Certification for North Anna Early Site Permit, March 18, 2005, page 2
 - (10) In the Matter of Dominion Nuclear North Anna. LLC Early Site Permit for North Anna ESP Site, NRC Docket No. 52-008, June 9, 2004
 - (11) Dominion's proposed federal consistency certification, dated March 18, 2005, at p. 4.
 - (12) 10CFR51.10(c) Subpart A, National Environmental Policy Act Regulations Implementing Section 102(2)
 - (13) CZMA § 1456 Coordination and cooperation (Section 307)(c)(2)
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