

RAS 12410

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

DOCKETED 10/24/06

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Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Thomas S. Elleman
Dr. Richard F. Cole

In the Matter of

DOMINION NUCLEAR NORTH ANNA, LLC

(Early Site Permit for North Anna ESP Site)

Docket No. 52-008-ESP

ASLBP No. 04-822-02-ESP

October 24, 2006

Memorandum and Order
(Granting Summary Disposition and Terminating Contested Proceeding)

Before the Board is a request by Dominion Nuclear North Anna, L.L.C. (Dominion) for summary disposition of Contention EC 3.3.2, "Impacts on Striped Bass in Lake Anna."¹ For the reasons set forth below, the motion is granted.

I. BACKGROUND

A. Procedural History

On September 25, 2003, Dominion filed an early site permit (ESP) application, seeking approval to site two new nuclear reactors (Units 3 and 4) at the North Anna nuclear power station in Louisa County, Virginia, where two nuclear power plants have existed and operated since 1978. An ESP is a special type of NRC permit, authorized under 10 C.F.R. Part 52, Subpart A, that can resolve certain environmental, safety, and emergency planning issues related to a proposed site for a reactor. The ESP can be issued long before an applicant

¹ Dominion's Second Motion for Summary Disposition Contention EC 3.3.2 – Impacts on Striped Bass in Lake Anna (Aug. 7, 2006) [Dominion Motion].

actually decides to build, and chooses the specific design of, the nuclear power reactor for that site. If an ESP is granted, the applicant still needs to obtain a construction permit or combined operating license before it can build the nuclear power reactor.

On November 25, 2003, the NRC published a notice of hearing and opportunity for petition for leave to intervene regarding Dominion's ESP application.² The Blue Ridge Environmental Defense League, the Nuclear Information and Resource Service, and Public Citizen (collectively, North Anna Intervenors or Intervenors), filed a timely request for hearing and petition to intervene.³ The Board, as originally constituted, concluded that the Intervenors had standing and had submitted two admissible contentions.⁴ One of those contentions was settled in early 2005, leaving Contention EC 3.3.2 as the sole remaining contention in this proceeding.⁵ On April 22, 2005, Dominion moved for summary disposition of Contention EC 3.3.2, and on June 16, 2005, the Board granted the motion in part, and denied it in part.⁶

On April 13, 2006, Dominion submitted Revision 6 to its ESP application and environmental report, changing its cooling method for proposed reactor Unit 3 from once-

² 68 Fed. Reg. 67,489 (Dec. 2, 2003).

³ Hearing Request and Petition to Intervene by [North Anna Intervenors] (Jan. 2, 2004).

⁴ LBP-04-18, 60 NRC 253, 270-72, 276 (2004). As originally constituted, the Board consisted of the then-Chief Administrative Judge G. Paul Bollwerk, III, Associate Chief Administrative Judge Anthony J. Baratta (Technical), and Special Associate Chief Administrative Judge Paul B. Abramson (Technical/Legal), 69 Fed. Reg. 15,910 (Mar. 26, 2004). The Board was later reconstituted with its current members. 69 Fed. Reg. 49,916 (Aug. 12, 2004).

⁵ Contention 3.3.4, "Failure To Provide Adequate Consideration of the No-Action Alternative," was settled and dismissed. Licensing Board Order (Approving Settlement and Dismissal of Contention EC 3.3.4) (Jan. 6, 2005) (unpublished).

⁶ Memorandum and Order (Granting in Part and Denying in Part Summary Disposition on Contention EC 3.3.2 - Impacts on Striped Bass in Lake Anna) (June 16, 2005) (unpublished) [June 2005 Summary Disposition Order]. Summary disposition was granted with regard to proposed Unit 4 because Dominion plans to use a dry cooling system for it and, therefore, it will have no thermal discharge. June 2005 Summary Disposition Order at 10-11.

through cooling water to a closed-cycle cooling system using a combination of wet and dry cooling towers. Dominion Motion at 3. On July 6, 2006, the NRC Staff made its Supplemental draft environmental impact statement, NUREG-1811, Supp. 1 (July 2006) (SDEIS) available to the public.

B. Dominion's Motion

On August 7, 2006, Dominion filed the current motion for summary disposition pursuant to 10 C.F.R. § 2.1205, claiming that because Dominion had switched to the use of a closed-cycle cooling system for Unit 3 (using a combined wet/dry cooling tower), there will be negligible thermal discharge to Lake Anna and therefore Contention EC 3.3.2 should be dismissed.⁷

Dominion Motion at 4. Contention EC 3.3.2 reads as follows:

The ER does not adequately address the adverse impact of operating one or two additional reactors on the striped bass in Lake Anna and the North Anna River. In particular, the ER does not adequately consider the impacts of the proposed reactors on the striped bass at Lake Anna and downstream arising from increased water temperature.

LBP-04-18, 60 NRC at 276. Dominion asserted that the closed cycle cooling system would reduce or eliminate its discharge of heated water to virtually nil, resulting in no greater than 12.4 cubic feet per second (cfs) discharge of blowdown water. Dominion Motion at 4. This blowdown water would be mixed with 4,246 cfs of circulating water from existing Units 1 and 2, and have a thermal impact of less than 0.1 degree Fahrenheit at the end of the discharge canal. Id. Dominion further stated that the reduced evaporation resulting from the reduction in lake surface area associated with the proposed cooling method would produce a lake temperature increase of less than 0.1 degree Fahrenheit. Id. at 5. Dominion's motion includes a statement of material facts on which it asserts no genuine dispute exists, and a supporting

⁷ The early site permit application covers two reactors - Units 3 and 4. Because Dominion's original application specified a dry cooling system for Unit 4 that would have no thermal discharge to Lake Anna, we granted Dominion's motion for summary disposition of Contention EC 3.3.2 with regard to Unit 4. June 2005 Summary Disposition Order at 11.

affidavit from Dr. Patrick J. Ryan.⁸

The North Anna Intervenors oppose the motion for summary disposition.⁹ The Intervenors “commend” Dominion for its new closed-cycle cooling system for Unit 3 and acknowledge that the new system “would likely have only insignificant effects on the temperature of water within Lake Anna.” Intervenors Response at 2. Further, “[w]ith respect to downstream impacts, Dominion’s revised proposal would likely eliminate increases in the temperature of water released over the Lake Anna Dam . . . to the North Anna River.”¹⁰

The Intervenors seek to sustain Contention EC 3.3.2 by arguing that its reference to the impacts of “increased water temperature” are not limited to the impact of discharging warm water, but also include the “increased evaporation of lake water [that] would still occur as a direct result of the operation of the revised cooling system.” *Id.* The Intervenors characterize the increased evaporation (and the concomitant decreased volume of discharged water) that would be caused by converting the Unit 3 cooling system from once-through discharges to a closed-cycle cooling system using a combination of wet and dry (evaporation), as a “thermal impact” covered by EC 3.3.2. *Id.*

In support of this proposition, Intervenors cite a footnote in our June 2005 ruling where we stated that the “synergistic impacts of flow and temperature are within the scope of this contention.” June 2005 Summary Disposition Order at 10 n.15. Intervenors assert that “[t]o limit consideration of ‘thermal impacts’ to water temperature increases alone, as Dominion suggests, would preclude consideration of other impacts that are the direct result of steps taken

⁸ Dominion Motion, Patrick J. Ryan Affidavit in Support of Dominion’s Motion for Summary Disposition of Contention EC 3.3.2 (July 28, 2006).

⁹ Intervenors’ Response to Dominion’s Second Motion for Summary Disposition of Contention 3.3.2. (Aug. 28, 2006) [Intervenors Response].

¹⁰ *Id.* at 3. As we understand it, water is discharged through the dam, rather than over it.

to dissipate the additional thermal load created by operation of Unit 3.” Intervenor’s Response at 6. The Intervenor’s posit that at the earlier stages of this proceeding, the phrase “thermal impacts” included “the release of heated wastewater into the Lake [that] would have induced evaporative water losses from the Lake, reducing the volume of water in the Lake.” *Id.* at 6-7. Now, with the elimination of once-through cooling water and the use of a closed-loop cooling system, the Intervenor’s accept that the water returned to the lake will not have elevated temperatures, but assert that EC 3.3.2 should include the evaporative water losses caused by the cooling towers. *Id.* at 7. Intervenor’s Response includes a statement of material facts that it asserts are in dispute, two supporting affidavits, and two letters from the Commonwealth of Virginia.¹¹

On August 28, 2006, the NRC Staff filed an answer supporting Dominion’s motion,¹² and on September 6, 2006, Dominion filed an unopposed motion for leave to file a reply and a reply.¹³

II. LEGAL STANDARD FOR SUMMARY DISPOSITION

The legal standards for summary disposition were described in our June 2005 Summary Disposition Order and need not be reiterated here. See June 2005 Summary Disposition Order at 4-6.

¹¹ Intervenor’s Response; Second Affidavit by Dr. Shawn Paul Young, dated August 25, 2006; Declaration by Barry W. Sulkin, dated August 24, 2006; and two letters, dated February 15, 2005 and July 7, 2006, from the Department of Game and Inland Fisheries of the Commonwealth of Virginia to Mr. Charles H. Ellis, III of the Department of Environmental Quality of the Commonwealth of Virginia.

¹² NRC Staff Answer Supporting Dominion’s Second Motion for Summary Disposition of Contention EC 3.3.2. (Aug. 28, 2006) [Staff Answer].

¹³ Dominion’s Motion for Leave to Reply to Intervenor’s Response to Dominion’s Second Motion for Summary Disposition of Contention EC 3.3.2 (Sept. 6, 2006); Dominion’s Reply to Intervenor’s Response to Dominion’s Second Motion for Summary Disposition of Contention EC 3.3.2 (Sept. 6, 2006).

III. ANALYSIS

The Board concludes that, given the unanimous agreement that Dominion's amended license application eliminates virtually all of the discharge of warmed water into Lake Anna and the North River, there remains no genuine dispute on any issue of material fact in this case, and Dominion is entitled to summary disposition as a matter of law. See 10 C.F.R. §§ 2.1205(c) and 2.710(d)(2).

The material facts are not in dispute. First, the Intervenors complained about Dominion's plan to use a once-through cooling system for Unit 3 because of the environmental impacts of discharging heated water into Lake Anna and, thence into the North Anna River. In response, Dominion modified its application to eliminate the discharge of virtually all heated water. The Intervenors agree that Dominion's revised proposal will likely have "only insignificant effects on the temperature of the water within Lake Anna" and "eliminate increases" downstream. Intervenors Response at 2.

Turning to Contention EC 3.3.2, it is our firm conclusion that it focuses on environmental "impacts . . . arising from increased water temperature" (emphasis added), not the impacts arising from the removal (and evaporation) of water. The contention was founded on the proposition that Dominion's discharge of water with an increased temperature will have environmental impacts, including higher water temperatures, in Lake Anna and the North Anna River. Footnote 15 in our June 2005 Summary Disposition Ruling merely acknowledges that one of these impacts might include greater evaporation of, and thus less, water in the lake and river. But to say that the discharge of warm water may cause greater evaporation in the lake is not to say that the discharge of less water may cause the lake to warm. Now, the situation has fundamentally changed. Revision 6 to Dominion's ESP application abandons Dominion's original approach for cooling Unit 3 and replaces it with a system that will have essentially no thermal impact on Lake Anna. Contention EC 3.3.2 never contemplated, and does not cover,

this factual situation.

IV. CONCLUSION

For the foregoing reasons, Dominion's motion for summary disposition on Contention EC 3.3.2, which is the sole remaining contention in this proceeding, is granted.¹⁴ Once final and effective, this order terminates (1) the contested portion of this proceeding, (2) the party status of the Intervenors, the Blue Ridge Environmental Defense League, the Nuclear Information and Resource Service, and Public Citizen, and (3) the duty of the parties and the NRC Staff to update mandatory disclosures and the hearing file under 10 C.F.R. §§ 2.336 and 2.1203. The mandatory hearing portion of this proceeding will proceed, and awaits the NRC Staff issuance of its final (supplemental) safety evaluation report and final (supplemental) environmental impact statement.

The Intervenors have fifteen (15) days after service of this order upon them, to file a petition for review with the Commission. 10 C.F.R. §§ 2.1212 and 2.341(b). Otherwise, absent sua sponte or other discretionary action by the Commission, this order shall be final and

¹⁴ Dominion's September 6, 2006, motion for leave to file a reply (and the reply itself) were unnecessary and are denied.

effective, and constitute the final decision of the Commission with regard to the contested portion of this proceeding, forty (40) days after the date of issuance of this order. 10 C.F.R. § 2.1210.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD¹⁵

/RA/

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

/RA by E. Roy Hawkens for/

Thomas S. Elleman
ADMINISTRATIVE JUDGE

/RA/

Richard F. Cole
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 24, 2006

¹⁵ Copies of this order were sent this date by Internet e-mail transmission to counsel for (1) applicant Dominion; (2) the North Anna Intervenors; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
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DOMINION NUCLEAR) Docket No. 52-008-ESP
NORTH ANNA, LLC)
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(Early Site Permit for North Anna ESP Site))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (GRANTING SUMMARY DISPOSITION AND TERMINATING CONTESTED PROCEEDING) (LBP-06-24) have been served upon the following persons by U.S. mail, first class, or through NRC internal distribution.

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Docket No. 52-008-ESP
LB MEMORANDUM AND ORDER (GRANTING
SUMMARY DISPOSITION AND TERMINATING
CONTESTED PROCEEDING) (LBP-06-24)

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Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 24th day of October 2006