

Blue Ridge Environmental Defense League

www.BREDL.org PO Box 88 Glendale Springs, North Carolina 28629 BREDL@skybest.com (336) 982-2691

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Ms. Susan Mackert
Department of Environmental Quality
13901 Crown Court
Woodbridge, Virginia 22193
Susan.mackert@deq.virginia.gov

Re: VPDES Draft Permit VA0052451, Dominion North Anna Power Station

Dear Ms. Mackert:

I submit the following document with a view towards bringing the Commonwealth of Virginia's VPDES Clean Water Act permit regime back into compliance with federal law regarding the pending permit renewal by Virginia DEQ and the State Water Control Board. We believe that the issues raised during the previous permit review are still outstanding in this regard.

APPENDIX B: Argument from the Blue Ridge Environmental Defense League's Brief in Support of Petition for Appeal, October 2008 before the Circuit Court for the City of Richmond.

I. The Board Improperly Issued Permit No. VA0052451 Without Any Regulation On The "Hot Side" Of The Lake Based Upon An Erroneous Determination That The "Hot Side" Is Exempt From Regulation.

Congress enacted the Clean Water Act ("CWA") to restore and maintain the chemical, physical, and biological integrity of the Nation's waters by reducing, and eventually eliminating, the discharge of pollutants into these waters. *Natural Res. Def. Council, Inc. v. EPA*, 16 F.3d 1395, 1399 (4th Cir. 1993) (citing 33 U.S.C. § 1251(a)). "As a primary means of achieving its ultimate goals, the CWA prohibits the discharge from any point source into protected national waters of any pollutant unless that discharge complies with specific requirements of the CWA." *Westvaco Corp. v. EPA*, 899 F.2d 1383, 1384 (4th Cir. 1990) (citing 33 U.S.C. § 1311(a)). In section 402 of the CWA, Congress established the National Pollution Discharge Elimination System ("NPDES") program, which issues permits that allow the discharge of pollutants as long as they comply with standards set forth in the CWA. 33 U.S.C. §

APPENDIX B

1342(a)(1) (2007). The CWA allows states to operate their own programs under the NPDES, provided the states adhere to standards at least as stringent as the federal requirements. *See* 33 U.S.C. § 1342(b) & (c)(1) (2007); 40 C.F.R. § 122.1(a)(2) (2007); *see also State Water Control Bd. v. Smithfield*, 261 Va. 209, 212, 542 S.E.2d 766, 768 (2001). Virginia has such a program ó the Virginia Pollution Discharge Elimination System (öVPDESö), which was approved by the EPA Administrator in 1975. *Id.* at 212, 542 S.E.2d at 768; 40 Fed. Reg. 20,129 (May 8, 1975) (approving Virginia's NPDES program).

Pursuant to the CWA, VPDES öpermits *must contain* any more stringent limitations that are *necessary to meet water quality standards* developed by the states pursuant to § 303.ö *Id.* (citing 33 U.S.C. 1313) (emphases added). ö[O]nce water quality standards have been set, NPDES *permit limitations must be established* to ensure compliance, regardless of the availability or effectiveness of treatment technologies.ö *Westvaco*, 899 F.2d at 1384 (emphasis added). ö[O]nce a water quality standard has been promulgated, section 301 of the CWA *requires all NPDES* permits for point sources to incorporate discharge limitations necessary to satisfy that standard.ö *Am. Paper Inst. v. EPA*, 996 F.2d 346, 350 (D.C. Cir. 1993) (emphasis added). öThe [EPA] regulations expressly interpret [CWA] § 401 as requiring the State to find that there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards.ö *PUD No. 1 v. Wash. Dept. of Ecology*, 511 U.S. 700, 716 (1994). This requirement applies with equal strength to öbroad, narrative criteria based on, for example, aesthetics.ö *Id.*

The State Water Control Board (öBoardö) is charged with administering Virginia's state VPDES program under the CWA's NPDES program. *See* Va. Code Ann. § 62.1-44.15 (2008). Essentially, therefore, the Commonwealth of Virginia is running a Federal program ó the

NPDES locally, and is not creating its own program. Accordingly, in executing its duties, the Board must follow the CWA and the CWA's interpretive regulations and case law to ensure that all VPDES permits measure up to the standards articulated by Congress in the CWA. The permit issued in this case represents an abject failure to uphold these standards.

- A. By refusing to limit heat discharge into the north side of Lake Anna, the Board failed to regulate 3,400 acres of waters of the United States protected under the CWA.

The SWCB committed an error of law in determining that the north side of Lake Anna did not fall within its regulatory jurisdiction. Agency resolution of legal issues is entitled to far less deference than decisions related to factual issues. *Env'tl. Def. Fund, Inc. v. Va. State Water Control Bd.*, 15 Va. App. 271, 277, 422 S.E.2d 608, 611 (1992). When an issue is purely one of law, there is no presumption of agency correctness, and a reviewing court will not account for the agency's experience and specialized competence. *Browning-Ferris Indus. of S. Atl., Inc. v. Residents Involved in Saving the Env't, Inc.*, 254 Va. 278, 284, 492 S.E.2d 431, 434 (1997). The issue of whether the CWA, and hence the VPDES, reaches the north side of Lake Anna requires the interpretation of specific statutory language, and is thus purely a question of law not implicating agency expertise. *See Sims Wholesale Co., Inc v. Brown-Forman Corp.*, 251 Va. 398, 404, 468 S.E.2d 905, 908 (1996) (stating that pure statutory interpretation is within the province of the judiciary).

The CWA is a sweeping mandate. The CWA prohibits the discharge of any pollutant into navigable waters except in compliance with its provisions. 33 U.S.C. § 1311(a), 1362(12) (2007). The CWA defines navigable waters as waters of the United States and classifies heat as a pollutant subject to regulation. *Id.* § 1362(6)-(7). In sum, the CWA unequivocally prohibits the discharge of heat into waters of the United States except by permit issued under

the NPDES by either the EPA or its corresponding state authority. As mentioned above, the State Water Control Board is the local authority tasked with issuing such permits under the VPDES program approved by the EPA. Since the VPDES program operates in lieu of the Federal program, it must comply with the jurisdictional mandates of the CWA. *See State Water Control Bd. v. Smithfield Foods, Inc.*, 261 Va. 209, 212, 216, 542 S.E.2d 766, 768, 770 (2001) (quoting 40 C.F.R. § 122.1(a)(2)). In other words, the Board cannot allow any waters of the United States to go unregulated that would otherwise be under the CWA's jurisdiction.

Instead of following its clear mandate, the Board has refused to regulate 3,400 acres of waters of the United States protected under the CWA. The North Anna Power Station discharges heat and a pollutant - into the hot side of Lake Anna. (R. at 88.) Thus, unless the hot side is not a water of the United States, it would be subject to regulation under the CWA through the VPDES. (See R. at 2925 (EPA conceding this point).) A review of the CWA and interpretive regulations and case law leads to the inescapable conclusion that the hot side is a water of the United States that Congress intended to regulate.

Congress intended that the term waters of the United States have the broadest possible constitutional interpretation to effectuate the wide scope intended for the CWA. *Ohio Valley Envtl. Coal. v. U.S. Army Corps of Eng'rs*, No. 3:05-0784, 2007 WL 2200686, at *11 (S.D.W. Va. Jun. 13, 2007) (quoting S. Conf. Rep. No. 92-1236, at 144 (1972), as reprinted in 1972 U.S.C.C.A.N. 3776, 3822). Accordingly, both the EPA and the Army Corps of Engineers promulgated a broad definition of waters of the United States subject to CWA jurisdiction. 33 C.F.R. § 328.3(a) (2007); 40 C.F.R. § 122.2 (2008). Under this definition,

Waters of the United States means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

- (b) All interstate waters, including interstate wetlands;
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Id. (emphasis added). Notably, although waste treatment systems are excluded from the definition of waters of the United States, cooling ponds are excepted from that exclusion.¹ Interpretation of this unambiguous regulation is not a matter of discretion; it is a matter of law. See *Christensen v. Harris County*, 529 U.S. 576, 588 (2000). To uphold the Board's and the EPA's determination in this case, the hot side of Lake Anna would need to be a waste treatment system. It is not. Since the hot side is not a waste treatment system, but rather a cooling lake, the EPA and the Board have committed legal error in failing to impose the thermal discharge limitations required under the CWA and VPDES.

1. The Board and the EPA improperly broadened the waste treatment system exception to exclude the hot side of Lake Anna from regulation.

¹ The referenced section that supposedly defines cooling ponds does not exist in the current Code of Federal Regulations. However, at the time the original definition of waters of the United States was promulgated, cooling ponds were defined as any manmade water impoundment which does not impede the flow of a navigable stream and which is used to remove heat from condenser water . . . + 40 C.F.R. § 423.11(m) (1979).

Congress intended for the "waste treatment system" exclusion from CWA jurisdiction to be as narrow as possible, stating that the use of rivers, lakes, streams, or the ocean as waste treatment systems was "unacceptable." *Ohio Valley*, 2007 WL 2200686, at *11 (quoting S. Rep. No. 92-414, at 7 (1971), as reprinted in 1971 U.S.C.C.A.N. 3668, 3674. It follows that the "hot side" of Lake Anna, which was created by the impoundment of the North Anna River and is fed by 10 tributaries, cannot fall within the "waste treatment system" exclusion. (R. at 2932.) For EPA and the Board to hold otherwise would "allow the exception to swallow the rule." *Ohio Valley*, 2007 WL 2200686, at *12.

The Board's impermissibly broad construction of the "waste treatment system" exclusion has been rejected by the few courts that have squarely addressed the issue. In the *Ohio Valley* case, the U.S. District Court for the Southern District of West Virginia set aside an unduly expansive reading of "waste treatment system" similar to the one now advanced by the Board. *Id.* at *13. In that case, the EPA and the Army Corps of Engineers contended that natural stream segments impounded for the purposes of removing coal sediment constituted "waste treatment systems" that were immune from regulation under the CWA. *Id.* at *12. The court rejected this view. Rather than defer to the EPA's and Corps' latest interpretation, the Court explicitly adopted and applied EPA's earlier regulatory definition which limited the "waste treatment systems" exclusion to "manmade bodies of water which neither were originally created in waters of the United States (such as a disposal area in wetlands) nor resulted from the impoundment of waters of the United States." *Id.* at *7 (quoting 45 Fed. Reg. 33,424 (May 19, 1980)); see also *U.S. v. TGR Corp.*, 171 F.3d 762, 765 (2d Cir. 1999) (applying the same interpretation). According to the court, despite removing this sentence from the regulations, EPA continued to follow it through the early 1990s. *Id.* at *8-9. In fact, in prior litigation, the EPA contended that

the removed sentence was explanatory rather than definitional in nature, and its suspension had no effect upon the clear definitional mandate that impoundments remain “waters of the United States.” *Id.* at *8 (quoting *W. Va. Coal Ass’n v. Reilly*, 728 F. Supp. 1276, 1290 (S.D.W. Va. 1989)).

However, the EPA drifted from this initial interpretation in subsequent litigation. *Ohio Valley*, 2007 WL 2200686, at *9-10. After reciting the history of inconsistent and often contrary interpretations advanced by the EPA throughout the 1990s and 2000s, the court found that the interpretation EPA and the Corps advanced in *Ohio Valley* was simply the latest “selectively altered” interpretation of the “waste treatment systems” exclusion. *Id.* at *9, 12. The court simply found no “reasoned analysis” to explain why the EPA departed from its original interpretation. *Id.* at *10. Rather, the *Ohio Valley* court stressed that any exceptions to the CWA jurisdictional and permitting requirements must be read narrowly to achieve the legislation’s clear mandate. *Id.* at *11 (citing *U.S. v. Akers*, 785 F.2d 814, 819 (9th Cir. 1986)). The court accordingly found EPA’s narrow original interpretation, restricting the “waste treatment systems” exclusion to “manmade bodies of water which neither were originally created in waters of the United States . . . nor resulted from the impoundment of waters of the United States” followed most naturally from the purpose and history of the CWA. *Id.* at *11-12. The court thus held that in-stream sediment treatment systems were *not* “waste treatment systems” and *were* subject to regulation under the CWA. *Id.* at *11.

The *Ohio Valley* decision was consistent with that same court’s decision two decades earlier. *W. Va. Coal Assoc. v. Reilly*, 728 F. Supp. 1276 (S.D. W. Va. 1989). Before the *Reilly* court, the EPA advanced the narrow interpretation of “waste treatment systems” subsequently adopted in *Ohio Valley*. *Id.* at 1289-90. Unlike in *Ohio Valley*, the *Reilly* court deferred to the

EPAs interpretation, finding its narrow application to be consistent with the purpose of the Clean Water Act. *Id.* at 1290. The court accordingly found that in-stream coal treatment ponds and the waters above the ponds were "waters of the United States" subject to EPA regulation because they constitute an "impoundment of waters otherwise defined as waters of the United States." *Id.* at 1289-90.

This Court should follow both *Ohio Valley* and *Reilly* and find that the "hot side" of Lake Anna is not a "waste treatment system." Rather, like the in-stream treatment ponds in *Reilly* and *Ohio Valley*, the "hot side" of Lake Anna is an "impoundment of waters otherwise defined as waters of the United States" subject to regulation under the CWA. 40 C.F.R. § 122.2(d) (2008).

As it did in *Ohio Valley*, the EPA and the Board, relying on the Virginia Attorney General's flawed opinion, have advanced an incorrect and overbroad construction of the "waste treatment system" exclusion from the CWA to justify issuance of the subject permit. According to the EPA, "NPDES authorities, both EPA and approved states, have some discretion in determining whether particular cooling water impoundments qualify for the "waste treatment system" exclusion from the definition of "waters of the United States." (R. at 2923-24.) This is simply incorrect and represents merely the latest installment of *post hoc* rationalizations rejected by the *Ohio Valley* court. Quite simply, either a facility is a "waste treatment system" or it is not; there is no room for discretion. Following the definition of "waste treatment system" adopted in *Reilly and Ohio Valley*, the "hot side" can fall within the exclusion only if it is a manmade body of water which was neither created in waters of the United States nor resulted from the impoundment of waters of the United States. *Ohio Valley*, 2007 WL 2200686, at *7-8; *Reilly*, 728 F. Supp. at 1289-90. The "hot side" fails on both counts. First, it was created in waters of the United States. Second, it came into existence through the impoundment of waters

of the United States. According to the Board, Lake Anna (including the ðcoolö and ðhot sidesö) was created by impounding the North Anna River. (R. at 2927.) Moreover, the EPA concedes that ðthe main reservoir of Lake Anna, as well as the tributaries flowing into both the main reservoir and cooling lagoons/WHTF, are surface waters . . . ,ö and hence ðwaters of the United States.ö (R. at 2922-23.) Therefore, since the ðhot sideö is a manmade body of water created by impounding ðwaters of the United States,ö it cannot fall under the ðwaste treatment systemö exclusion as a matter of law.

The ðhot sideö thus is no different than the impoundments in *Reilly* and *Ohio Valley*. In those cases, coal companies impounded natural-flowing streams to treat byproducts of coal mining. In this case, Dominion impounded a natural-flowing river to create a body of water intended to treat heat ó the byproduct of its power plant. Protected waters cannot lose their status by assisting in the discharge of pollutants. *Ohio Valley*, 2007 WL 2200686, at *12. Therefore, this Court should follow these two cases and find that the ðhot sideö of Lake Anna is a ðwater of the United Statesö subject to regulation.

The Ninth Circuit Court of Appeals recently rendered an interpretation of the ðwaste treatment systemö exclusion that likewise contradicts that advanced by the Board and EPA. In *N. Cal. River Watch v. Healdsburg*, No. 01-4686 (N.D. Cal. Jan. 23, 2004), *aff'd*, 457 F.3d 1023 (9th Cir. 2006), the city of Healdsburg argued that a pond, formed by an old gravel mining pit, acted as a percolating filter and thus was a ðwaste treatment systemö excluded from CWA regulation. *Id.* at *34. The district court disagreed. In affirming, the Ninth Circuit held that the ðwaste treatment system exemption was intended to exempt either water systems that do not discharge into waters of the United States or waters that are incorporated in an NPDES permit as part of a treatment system.ö *Healdsburg*, 457 F.3d at 1031-32. The Ninth Circuit held that while

the pond may be *part* of a waste treatment system, it does not fall under the exemption because it is neither a self-contained pond nor is it incorporated in an NPDES permit as part of a treatment system. *Id.* at 1032.

Once more, applying the Ninth Circuit's reasoning to the present case leads to the same conclusion: the "hot side" of Lake Anna is not a "waste treatment system." The "hot side" fails the first part of the Ninth Circuit's definition because it *does* discharge into waters of the United States. (See R. at 2922 (EPA stating that "cool side" of Lake Anna, to which the "hot side" discharges, is a "surface water," the Commonwealth's term for "waters of the United States").) The "hot side" does not conform to the second aspect of the definition either. Since the Board and the EPA have steadfastly maintained that they have no authority to regulate the "hot side" of Lake Anna, it is axiomatic that they have never incorporated such regulations into a VPDES permit. Therefore, under yet another court's interpretation, the "hot side" of Lake Anna would be subject to regulation under the CWA.

Regardless of whether this court follows *Ohio Valley*, *Reilly*, or *Healdsburg*, the result is the same: the "hot side" of Lake Anna is not a "waste treatment system" and *must* be regulated as a water of the United States. The EPA concedes this. In its "no objection" letter, EPA stated that, "if it were determined that the cooling lagoons were not subject to the "waste heat treatment" exclusion," then the CWA would apply. (R. at 2925.) There exists no "waste heat treatment" exclusion, but merely a "waste treatment systems" exclusion which does not apply to the "hot side" of Lake Anna. Therefore, the failure of the Board to regulate 3,400 acres of waters of the United States in permit number VA0052451 is reversible legal error.

2. The "hot side" of Lake Anna is a cooling lake subject to regulation under the CWA through the VPDES program.

Pursuant to the NPDES program contained in the CWA, Virginia promulgated a definition of "surface waters" that the Board must regulate under the VPDES. 9 VAC 25-31-10 (2008). Since the VPDES must be at least as strong as the NPDES, Virginia's program is required to have at least the same jurisdictional bite, meaning that "surface waters" must at least encompass all "waters of the United States" protected under the CWA. However, the regulations promulgated by the Board and the Virginia Department of Environmental Quality do not measure up to these required federal standards. The state "surface waters" definition is identical line-by-line to the Federal "waters of the United States" definition except in one material respect: under the Virginia regulations, "cooling ponds" are not removed from the "waste treatment system exclusion." *Id.* In other words, "cooling ponds," which are specifically subject to regulation under the CWA as "waters of the United States," are not subject to regulation in Virginia under the VPDES. Based on Virginia's improperly restrictive definition of "surface waters," the Attorney General concluded that the "hot side" of Lake Anna represents "cooling lagoons" over which the Board lacks jurisdiction.² (R. at 3186-88.) However, this interpretation impermissibly results in the VPDES program being *less strict* than the NPDES program under the CWA and leaves 3,400 acres of "waters of the United States" — the "hot side" of Lake Anna — unprotected. In following the Attorney General's erroneous legal interpretation to issue the subject permit, the Board committed reversible legal error. (R. at 2928, 3249, 3261.)

Despite the failure of the Commonwealth to require "cooling ponds" to be regulated under the VPDES, the Board committed a more elementary error by glossing over the fact that the "hot side" is a "cooling lake" which is *de facto* within EPA's and the Board's jurisdiction.

² The term "cooling lagoons" appears nowhere in Virginia's definition of "surface waters." 9 VAC 25-31-10 (2008).

The EPA's own words demonstrate why "cooling ponds"³ and "cooling lakes"⁴ must be regulated under the CWA. *See* 44 Fed. Reg 32,854, 32,858 (Jun. 7, 1979). First, the EPA differentiates between the two different bodies of water. *Id.* "A "cooling pond" may under some circumstances be navigable waters, but usually is not. A "cooling lake" is always a navigable water. *Id.* (emphasis added). Next, the EPA set forth its reasons for specifically including cooling ponds within the realm of CWA and NPDES regulation:

Such ponds are frequently extremely large in size and some harbor fish populations which invite recreational uses. If such ponds are opened for recreational use, recreational users of the previously non-navigable waters could be exposed to potentially harmful effects where, for example, fish are contaminated and consumed by such users. EPA believes this use should remain subject to control under the [CWA]'s regulatory provisions, and that such broad jurisdiction is consistent with the thrust of the [CWA] and its legislative history.

Id. In summary, the EPA concludes that cooling ponds meet the criteria for "waters of the United States" if they are ". . . for example, those which are used for fishing or other recreational purposes by interstate travelers . . ." *Id.* Cooling lakes are *always* "waters of the United States"⁵ subject to regulation under the CWA and NPDES.

The only reason why the EPA devoted more discussion to "cooling ponds" than to "cooling lakes" is because, since cooling ponds are not formed by impounding navigable waters, they may not have as clear of a connection to other navigable waters. Therefore, the EPA requires more "interstate commerce" characteristics of cooling ponds (i.e. use by interstate

³ A cooling pond is defined as "any manmade water impoundment which does not impede the flow of a navigable stream" used to remove "heat from heated condenser water prior to returning the recirculated cooling water to the main condenser." 40 C.F.R. 423.11(m) (1979). This definition no longer appears in the Code of Federal Regulations, but does not appear to have been intentionally abrogated or superseded.

⁴ A "cooling lake" is defined as "any manmade water impoundment which impedes the flow of a navigable stream" used to remove "heat from heated condenser water prior to recirculating the water to the main condenser." *Id.* § 423.11(n). This definition no longer appears in the Code of Federal Regulations, but does not appear to have been intentionally abrogated or superseded.

⁵ This term is used interchangeably with "navigable waters" throughout the CWA and its interpretive regulations.

travelers) before it will assert jurisdiction. However, cooling lakes are *always* under EPA jurisdiction because, since they are formed by impounding other navigable waters, the connection to other waters of the United States is incontrovertible. Moreover, as the EPA recognizes, cooling lakes, perhaps even more so than cooling ponds, are large in size and used for recreational purposes and thus *can never be classified as waste treatment systems*. Therefore, cooling lakes should be treated just like any other lakes and impoundments subject to regulation as waters of the United States under the CWA. *See* 40 C.F.R. § 122.2 (2008).

The hot side of Lake Anna is a cooling lake subject to CWA and VPDES regulatory and permitting jurisdiction. A cooling lake, defined as any manmade water impoundment which impedes the flow of a navigable stream used to remove heat from heated condenser water prior to recirculating the water to the main condenser, 40 C.F.R. § 423.11(n) (1979), is always a navigable water subject to the EPA's and the Board's jurisdiction, 44 Fed. Reg. 32,854, 32,858 (Jun. 7, 1979). As mentioned earlier, Lake Anna's hot side and cool side was created by impounding the North Anna River, a water of the United States. (R. at 2922-23.) Thus, it is an impoundment that impedes the flow of a navigable stream. Water from the cool side of Lake Anna flows through the North Anna Power Station to remove heat, and the heated water byproduct is subsequently released into the hot side of Lake Anna. (R. at 2927.) Water then flows through the hot side until it is discharged back into the cool side at Outfall 001, when the process repeats. (*Id.*; R. at 3099.) Since the hot side meets all elements of the definition of cooling lake, it must be so classified and regulated under the CWA and VPDES program.

Moreover, the EPA's stated reasons for regulating cooling ponds apply with even greater force to the hot side of Lake Anna, a cooling lake. First, the hot side is extremely

large in size.ö 44 Fed. Reg 32,854, 32,858 (Jun. 7, 1979). In following the Attorney General's erroneous interpretation, the Board and EPA have failed to regulate 3,400 *acres* of waters of the United States protected under the CWA. Second, the "hot side" harbor[s] fish populations which invite recreational uses.ö According to the comments submitted by Friends of Lake Anna, a local group formed for the protection of the Lake, there is a "minimum of 13 public access areas for fishing . . . ö on the "hot side" of Lake Anna. (R. at 2542.) Furthermore, "[i]n all cases, you can see the public routinely fish, swim and recreate at these sites. For example, the public fishing area at Dike 3⁶ (Moody Town Road) . . . is sponsored by Virginia Department of Game and Inland Fisheries, with parking and public portable toilet [sic] available.ö (*Id.*) Importantly, Dominion does not deny that such uses of the "hot side" exist. On its website, Dominion states that "[t]he Lake Anna reservoir *and the Waste Heat Treatment Facility* have become a popular outdoor recreational area, whose shoreline is dotted with homes, cabins.ö North Anna Power Station, <http://www.dom.com/about/stations/nuclear/northanna/index.jsp> (last visited Oct. 15, 2008) (emphasis added). Finally, owners of properties that abut the "hot side" of Lake Anna have deeds which demonstrate the Dominion contemplated such recreational uses. (R. at 3138.) These deeds allow the owners to "construct, maintain and use on such shore land and beyond the same *into the waters of said cooling lagoons* . . . such piers, jetties or *other recreational* or protective structuresö (*Id.*)

The Board and EPA simply ignored these recreational uses during the most recent permitting. In the face of overwhelming use of recreational public use, the Board conclusorily stated, "[s]taff does not have the basis to set a maximum temperature in the cooling lagoons

⁶ This is the discharge point from the "hot side" to the "cool side" of Lake Anna.

since the facility is being used within its defined purpose as a treatment facility.⁷ (R. at 2929.) This is wrong in two equally important respects. First, the Board fails to account for the fact that Dominion is not the only user of the "hot side" of Lake Anna. Rather, thousands of homeowners and recreational visitors use the "hot side" and must be protected under the CWA. Second, as discussed above, the "hot side" cannot be legally classified as a "treatment facility." Dominion simply cannot be permitted to have it both ways. It cannot sell land and allow recreational uses on the "hot side" while simultaneously claiming that it is a "waste treatment" cesspool that is beyond regulation.

It is the character and use of the "hot side" that should dictate how it must be treated under the CWA. Congress expressly stated that "cooling lakes" are always waters of the United States that must meet the standards set forth in the CWA. 44 Fed. Reg 32,854, 32,858 (Jun. 7, 1979). Further, Congress explicitly found it inappropriate to classify large bodies of water used for recreational purposes as "waste treatment systems." *Id.* Therefore, the inescapable conclusion is that the "hot side" of Lake Anna is a "cooling lake," which is a "water of the United States" subject to regulation under the CWA and the VPDES program. The failure of the Board to uphold its regulatory duty in issuing permit number VA0052451 results in 3,400 acres of "waters of the United States" remaining unprotected under the CWA. This represents legal error that must be reversed.

- B. Since the "hot side" is a "cooling lake" subject to CWA and VPDES jurisdiction, it was error to issue Permit No. VA0052451 without limits and regulation on thermal pollution discharges into the "hot side."

⁷ The classification of the "hot side" as a "treatment facility" represents yet another instance of fitting a square peg into a round definitional hole. Under VPDES regulations, a "treatment facility" encompasses "only those *mechanical power driven devices* necessary for the transmission and treatment of pollutants." 9 VAC 25-31-10 (2007). The "hot side" is not mechanical or power driven; it is simply made up of adjoining bodies of water intended to gradually dissipate heat. (See R. at 2954 (stating that heated water sits for 7.5 to 14 days before being discharged into the "cool side").) The failure of the "hot side" to meet this definition further shows that it was never intended to be beyond CWA and VPDES regulation.

States must develop water quality standards pursuant to section 303 of the CWA. These standards consist of: (i) a designated use for the subject waters and (ii) water quality criteria specifying the maximum levels of various pollutants to comport with the designated uses. 40 C.F.R. §§ 131.2-3 (2007). The water quality standards can be expressed in numeric or narrative form. *Id.* § 131.3(b).

Pursuant to the CWA, the Board promulgated Virginia's Water Quality Standards, both in numeric and narrative form. *See* 9 VAC 25-260-50, -60-90 (2007). According to the Fourth Circuit Court of Appeals, once water qualities have been set, NPDES permit limitations *must* be established to ensure compliance, regardless of the availability or effectiveness of treatment technologies. *Westvaco Corp. v. EPA*, 899 F.2d 1383, 1384 (4th Cir. 1990) (emphasis added). Since the hot side of Lake Anna is a water of the United States subject to and requiring regulation under the CWA and VPDES program, it must be held to applicable standards for thermal pollution.

According to the permit's Fact Sheet, Lake Anna is part of the York River Basin and is designated a Class III water under Virginia's water quality standards regulations. (R. at 3250.) Under this classification, the upper limit on temperature is 32 degrees Celsius, or 89.6 degrees Fahrenheit. 9 VAC 25-260-50 (2007). The data collected by Dominion and summarized by the Board unequivocally demonstrates that both hourly and mean temperatures in the hot side of Lake Anna routinely exceed this 32-degree threshold from May through October. (R. at 3100, 3130-34.) Dominion and the Board also concede that these temperature violations are due to the discharge of heat from the North Anna Power Station into the hot side. (*See* R. at 2929 (stating that the North Anna Power Station routinely heats water by 14 degrees Celsius).) Therefore, the hot side is in continued violation of the water quality standards and the CWA.

Since it has not applied for the variance required by the CWA at the Outfall 101 discharge point, the Board committed legal error by issuing a permit that allows for continued derogation of the Commonwealth's and the CWA's water quality standards.

Section 316(a) of the CWA allows owners of thermal-discharging point sources (i.e. the North Anna Power Station) to apply for a variance from any effluent limitation proposed for the control of the thermal component of any discharge if it is shown that the current effluent limitation is more stringent than necessary to assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in the receiving waters. 33 U.S.C. § 1326(a) (2007). Before such a variance can be granted, the owner would need to submit a 316(a) demonstration that would show the superfluity of the more stringent effluent limitations. 40 C.F.R. § 125.72 (2007). Dominion has not done this and cannot now be permitted to exceed the effluent limitations imposed by the Virginia water quality standards.

Dominion and the Board have attempted to completely side-step the applicability of the CWA and VPDES program at the Outfall 101 discharge into the hot side of Lake Anna. As established above, because the hot side of Lake Anna is a cooling lake that is a water of the United States, it is subject to regulation under both regimes. Thus, either the hot side must be held to the water quality standards established pursuant to the CWA or Dominion must show why these standards should not apply. The EPA concedes this exact point in its no objection letter. According to the EPA, [i]t should be noted that if it were determined that the cooling lagoons were not subject to the waste heat treatment exclusion, then the NPDES permit compliance point would be at the discharge into the cooling lagoons, or Outfall 101. (R. at 2925 (emphasis in original).) In that situation, the permittee would be entitled to apply for a

new CWA § 316(a) thermal variance, supported by studies of the aquatic community of the cooling lagoon similar to those previously submitted in support of the current variance.ö (*Id.*)

Without a § 316(a) variance at Outfall 101, Dominion simply cannot be allowed to continually violate water quality standards in öwaters of the United States.ö However, the Board approved a permit that will virtually assure the continued defiance of Virginia's water quality standards in the öhot sideö of Lake Anna. In so doing, it acted in derogation of its clear obligation under the CWA. Thus, the failure to insist on a § 316(a) demonstration before issuing permit number VA0052451 is reversible legal error. *See Env'tl. Def. Fund v. Va. State Water Control Bd.*, 15 Va. App. 271, 278, 422 S.E.2d 608, 612 (1992) (finding that an agency decision must be set aside if it failed to observe required procedures).

II. The Board's Finding That Re-Issuance Of Permit No. VA0052451 Does Not Violate Virginia's Antidegradation Policy Lacked Substantial Evidence.

For factual issues, the inquiry on review of the agency record öshall be limited to ascertaining whether there was substantial evidence in the agency record upon which the agency as the trier of the facts could reasonably find them to be as it did.ö Va. Code § 2.2-4027 (2008). A court will find no substantial evidence where, upon reviewing the record, a reasonable mind would necessarily come to a different conclusion. *Va. Real Estate Comm'n v. Bias*, 226 Va. 264, 269, 308 S.E.2d 123, 125 (1983). In this case, there is no substantial evidence to support the Board's conclusory, ipse dixit determination that the issuance of permit number VA0052451 was in harmony with the Commonwealth's antidegradation policy.

The CWA requires states to establish antidegradation policies to ensure that water quality is maintained across varying categories of waters. *See* 33 U.S.C. § 1313 (2007); 40 C.F.R. § 131.12 (2007). Consistent with this mandate, Virginia has adopted its own antidegradation

policy. 9 VAC 25-260-30 (2007). Virginia's antidegradation policy applies to "all surface waters of the Commonwealth," which, as established above, must be no less inclusive than the definition of "waters of the United States." *Id.* 25-260-30(A). The policy applies "whenever any activity is proposed that has the potential to affect existing surface water quality." *Id.* Here, reissuance of the subject permit and continued thermal discharge into Lake Anna through Outfalls 101 and 001 has the "potential to affect existing surface water quality." Thus, before reissuing the permit, the Board was required to ensure that the antidegradation policy was followed. This it did not do.

The Commonwealth's antidegradation policy requires "existing instream water uses and the level of quality necessary to protect the existing uses" to be "maintained and protected." *Id.* 25-260-30(A)(1). According to the policy, "any determinations concerning thermal discharge limitations made under § 316(a) of the Clean Water Act will be considered to be in compliance with the antidegradation policy." *Id.* 25-260-30(B). However, section 316(a) determinations only encompass the effects of thermal discharges on a "balanced, indigenous population of shellfish, fish and wildlife in and on the body of water into which the discharge is to be made," 33 U.S.C. § 1326 (2007), whereas the antidegradation policy requires the Commonwealth to consider all "existing instream water uses," 9 VAC 25-260-30(A)(1). Thus, while a section 316(a) determination may speak to impacts on the biodiversity of the affected ecosystem, it does not purport to address the impacts of thermal pollution on the "human" uses of the water. To comply with the antidegradation policy, therefore, the Board must evaluate both factors and determine that the issuance of a permit will not lead to degradation of the Commonwealth's waters. In this case, the Board has failed with respect to both the "hot side" and the "cool side."

Rather than a meaningful evaluation of these numerous factors, the Board devoted a mere *two sentences* to its conclusory and incorrect antidegradation analysis. (R. at 3250). According to the Board, "Lake Anna meets the Water Quality Standards and the beneficial uses are protected. The waste load allocations will be calculated to maintain water quality standards and criteria." (*Id.*) This determination is clearly incorrect and without substantial evidence.

Contrary to the Board's statement, Lake Anna *does not* meet the Water Quality Standards in either the "hot" or "cool side." Pursuant to the mandate of Virginia Code section 62.1-44.15(3a), the Board has established water quality standards for the waters of Virginia. "Water quality standards are a critical component of the CWA regulatory scheme because such standards serve as a guideline for setting applicable limitations in individual discharge permits." *Natural Res. Def. Council, Inc. v. EPA*, 16 F.3d 1395, 1399 (4th Cir. 1993). The Board's regulations have defined water quality standards as "provisions of state or federal law which consist of a designated use or uses for waters of the Commonwealth and water quality criteria for such waters based upon such uses. Water quality standards are to protect the public health or welfare, enhance the quality of the water and serve the purposes of the State Water Control Law and the federal Clean Water Act." 9 VAC 25-260-5 (2007) (citations omitted). These "criteria" include "elements of the board's water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. When criteria are met, water quality will generally protect the designated use." *Id.* "The state water quality criteria may be expressed as numerical concentration limits or in narrative form." *Westvaco v. EPA*, 899 F.2d 1383, 1384 (4th Cir. 1990). The Board is required to ensure full attainment of both numeric and narrative criteria. 9 VAC 25-31-220(D) (2007).

As stated earlier, the Board has promulgated various "numeric criteria" relevant to Lake Anna. Lake Anna has been classified as a Class III water under Virginia's water quality standards. (R. at 3250). According to the relevant numeric criterion, "maximum temperature" may not exceed 32 degrees Celsius. However, both the "hot side" and the "cool side" commonly exceed this temperature, at times reaching in upwards of 100 degrees Fahrenheit. (See R. at 3100, 3130-34.)⁸ Violation of the "numeric criteria" does not stop there, however. An additional numeric criterion requires that "[a]ny rise above natural temperature shall not exceed 3 [degrees Celsius], or 5.4 degrees Fahrenheit. 9 VAC 25-260-60 (2007). Dominion and the Board both admit that, under the current "heat rejected" approach, water flowing from North Anna Power Station into the "hot side" is 14 degrees Fahrenheit (7.7 degrees Celsius) warmer than ambient temperature. Such a discharge unnaturally increases the water temperature in the "hot side" beyond those levels permitted under the "numeric criteria."

The Board has further designated that the uses for "[a]ll state waters," including Lake Anna, include "recreational uses, e.g., swimming and boating; the propagation and growth of a balanced, indigenous population of aquatic life, including game fish, which might reasonably be expected to inhabit them; and the production of edible and marketable natural resources, e.g., fish and shellfish." 9 VAC 25-260-10(A) (2007). As stated earlier, Lake Anna's both the "hot" and "cool" sides are recreation areas used for swimming and fishing. See North Anna Power Station, <http://www.dom.com/about/stations/nuclear/northanna/index.jsp> (last visited Oct. 15, 2008); (R. at 2542, 3138.) Contrary to the Board's position, the record contained substantial evidence to show potential adverse effects that heated water could have on human health that

⁸ The Board attempts to argue that the hourly "mean" temperature in the "cool side" never eclipsed 32 degrees Celsius. However, reliance on this fact is misplaced. The applicable water quality standard clearly states "maximum temperature," not "mean temperature." 9 VAC 25-260-50 (2007). Mean temperature is thus irrelevant.

would impact the uses of Lake Anna. (See R. at 1976-79 (Medical Doctor stating that potential proliferation of bacteria in heated waters could pose dangers to human health.)

The Board was simply wrong when it claimed that Lake Anna meets the applicable Water Quality Standards. (R. at 3250.) Rather, substantial evidence shows that the heated water discharged from the North Anna Power Station caused violations of both numeric and narrative criteria. Since permit number VA0052451 will result in a failure to maintain the level of water quality necessary to protect the existing uses of Lake Anna, the Board violated the antidegradation policy by issuing it.

The exception for CWA section 316(a) variances cannot operate to the Board's salvation. First, the Board has continually abdicated its authority to regulate the hot side in any way. Accordingly, the Board has never granted a section 316(a) variance to the hot side that could be relied upon for a finding of no degradation. Since the hot side is in clear violation of the Water Quality Standards applicable to the water's uses, the Board acted in derogation of the antidegradation policy by allowing these non-compliant thermal discharges to continue. The 316(a) variance applicable to discharges into the cool side is also unavailing for the purposes of the antidegradation policy. As mentioned above, while the variance arguably addresses the biodiversity of the Lake Anna ecosystem, it is neither intended to nor required to address human uses of the cool side of the Lake. Therefore, despite the section 316(a) variance, it was error for the Board to allow discharges into the cool side that would negatively affect the recreational uses of the Lake.

Under the permit issued by the Board, Dominion is allowed to contribute to the degradation of the hot and cool side of Lake Anna indicative of its violation of both the numeric and narrative criteria embodied in the Commonwealth's Water Quality Standards.

Since these criteria are intended to protect existing uses of Lake Anna, it necessarily follows that the Board erred in determining that violation of these standards results in the beneficial uses [of the Lake being] protected. (R. at 3250.) Rather than employ its expertise to undertake a meaningful antidegradation analysis, the Board merely regurgitated statutory language in a conclusory fashion. See generally *Browning-Ferris Indus. of S. Atl., Inc. v. Residents Involved in Saving the Env't*, 254 Va. 278, 285, 492 S.E.2d 431, 435 (1997) (finding agency's conclusory recitation of statutory language or a statement of compliance with the statute insufficient to satisfy the statutory mandate). The Board's incorrect and incomplete antidegradation analysis lacked substantial evidence and thus should compel reversal of the issuance of permit number VA0052451.

Respectfully submitted,



Louis A. Zeller
Executive Director
PO Box 88 Glendale Springs, NC 28619
(336) 982-2691
BREDL@skybest.com