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## Natural Resources Defense Council v. United States Environmental Protection Agency

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***Natural Resources Defense Council v. United States Environmental Protection Agency*, 804 F.3d 149 (2d Cir. 2015)**

**Erick Valencia**

In *Natural Resources Defense Council v. United States Environmental Protection Agency*, the court was asked to review the EPA’s Vessel General Permit that set limits on the discharge of pollutants in a ship’s ballast water. Ballast water discharge has become one of the major contributors to the spread of invasive species, especially in the Great Lakes where short voyages allow organisms to easily survive in ballast water. The EPA’s lack of information was a problem of its own making because it prohibited the Science Advisory Board and National Academy of Sciences from adequately exploring available technology before setting the effluent limits. However, despite finding that the EPA acted arbitrarily and capriciously when it issued the Vessel General Permit, the court allowed the permit to remain in place until a new one is issued in 2019.

I. INTRODUCTION

The question before the court in *Natural Resources Defense Council v. United States Environmental Protection Agency* was whether the Environmental Protection Agency (“EPA”) acted arbitrarily and capriciously when it issued a Vessel General Permit in 2013 (“2013 VGP”) to regulate pollutants in ballast water discharges from ships.<sup>1</sup> Petitioner Natural Resources Defense Council (“NRDC”) and four other environmental groups filed Petitions for Review (“PFRs”) based primarily on three arguments.<sup>2</sup> First, the NRDC argued that the EPA acted arbitrarily and capriciously in selecting a discharge standard because (1) it did not follow the proper procedure in selecting the water quality based standard it used; (2) it failed to consider onshore treatment methods of ballast water; (3) it should have included numeric standards for viruses and protists; and (4) it should not have exempted Lakers built before 2009 from the Technology Based Effluent Limits (“TBELs”).<sup>3</sup> Second, the NRDC argued that the EPA should have issued numeric rather than narrative Water Quality Based Effluent Limits (“WQBELs”).<sup>4</sup> Finally, the NRDC argued that the EPA’s monitoring and reporting requirements were too vague to guarantee compliance.<sup>5</sup> The NRDC sought an order setting aside the 2013 VGP.<sup>6</sup> The court agreed that the EPA acted arbitrarily and capriciously and

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<sup>1</sup> *Natural Res. Def. Council v. U.S. Env’tl. Prot. Agency*, 804 F.3d 149, 154 (2d Cir. Oct. 5, 2015).

<sup>2</sup> *Id.* at 155.

<sup>3</sup> *Id.* at 162.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> Pet’r Nat’l Wildlife Fed’n’s Opening Br. at 44, *Natural Res. Def. Council v. U.S. Env’tl. Prot. Agency*, 804 F.3d 149 (2d Cir. 2015) (No. 13-1745(L)).

remanded the issues back to the EPA for further proceedings, while allowing the 2013 VGP to remain in effect until the EPA issued a new VGP.<sup>7</sup>

## II. FACTUAL AND PROCEDURAL BACKGROUND

By taking in ballast water containing living organisms from one body of water and discharging it in another, ships have become a major contributor to the spread of aquatic invasive species.<sup>8</sup> Ships used exclusively in the Great Lakes are known as “Lakers,” and “account for over ninety-five percent of ballast water volumes transferred in the Great Lakes.”<sup>9</sup> Lakers are much more likely to spread invasive species than oceangoing ships because their short voyages allow organisms to survive in ballast water.<sup>10</sup>

On March 28, 2013, the EPA issued a National Pollutant Discharge Elimination System (“NPDES”) permit, at issue in this case, pursuant to the Clean Water Act (“CWA”).<sup>11</sup> The NPDES was intended to regulate ship discharges generally as opposed to permitting individual ships to discharge their ballast water.<sup>12</sup> This type of permit is known as a Vessel General Permit.<sup>13</sup> The 2013 VGP contained TBELs and WQBELs that limit the number of living organisms that may be discharged in ballast water.<sup>14</sup> The EPA considered reports by its Science Advisory Board (“SAB”) and the National Academy of Sciences Committee on Assessing Numeric Limits for Living Organisms in Ballast Water (“NAS Committee”) in setting the standards for effluent limits in the 2013 VGP.<sup>15</sup>

The SAB weighed various factors affecting the capabilities of shipboard systems as well as the standards already adopted by the International Maritime Organization (“IMO Standard”) in recommending the proper effluent limits for the 2013 VGP.<sup>16</sup> At the direction of the EPA Office of Water, the SAB did not consider the viability of using onshore treatment.<sup>17</sup> Instead, its report identified five categories of shipboard technology that could reliably meet the IMO Standard.<sup>18</sup> The EPA tasked the NAS Committee with examining “the relationship between the concentration of living organisms in ballast water discharges and the probability of invasive organisms successfully establishing populations in U.S.

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<sup>7</sup> *Natural Res. Def. Council*, 804 F.3d at 177.

<sup>8</sup> *Id.* at 154.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> *Id.* at 159-60.

<sup>12</sup> *Id.* at 156.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at 160.

<sup>15</sup> *Id.* at 159.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at 165-66.

<sup>18</sup> *Id.* at 159 (citing U.S. ENVTL. PROT. AGENCY, SCI. ADVISORY BD., EFFICACY OF BALLAST WATER TREATMENT SYSTEMS: A REPORT BY THE EPA SCIENCE ADVISORY BOARD 3 (July 12, 2011), available at [http://yosemite.epa.gov/sab/sabproduct.nsf/6FFF1BFB6F4E09FD852578CB006E0149/\\$File/EPA-SAB-11-009-unsigned.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/6FFF1BFB6F4E09FD852578CB006E0149/$File/EPA-SAB-11-009-unsigned.pdf)).

waters.”<sup>19</sup> The NAS Committee concluded that “[t]he current state of science does not allow a quantitative evaluation of the relative merits of various discharge standards in terms of invasion probability.”<sup>20</sup>

Based on the results of these two reports, the EPA set the TBELs at the same numerical standards as the IMO Standard.<sup>21</sup> The WBQELs did not have numeric limits, only narrative standards requiring that (1) all oceangoing ships entering the Great Lakes continue performing ballast water exchanges; and (2) all ships control their discharges as necessary to meet applicable water quality standards.<sup>22</sup>

NRDC and two other environmental groups filed petitions for review on May 3, 2013, arguing the EPA acted arbitrarily and capriciously and not in accordance with law when it issued the 2013 VGP because there were significant errors with the TBELs, the WQBELs, and the monitoring and reporting requirements.<sup>23</sup>

### III. ANALYSIS

NPDES permits limit the discharge of pollutants into navigable waters through the use of two types of standards: TBELs and WQBELs.<sup>24</sup> TBELs are meant to encourage continuous development of new, more efficient, and cleaner technologies by requiring effluent limits to be based on the “best available technology economically achievable” (“BAT”) that will “result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants.”<sup>25</sup> Technology is “available” if it can be used for a particular discharge even if it is not in use in that particular industry at the time.<sup>26</sup> Technology from one industry is “available” in another industry if (1) it is available in the industry from which it will be taken; (2) it is transferrable to the other industry; and (3) it is reasonably predictable that the technology will be capable of meeting the effluent standards in the other industry.<sup>27</sup> WQBELs, on the other hand, set effluent limits regardless of the costs or the availability of technology, and are meant to supplement TBELs when the TBELs alone are insufficient to meet the required water quality standards.<sup>28</sup>

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<sup>19</sup> *Id.* (citing NAT’L RESEARCH COUNCIL, COMM. ON ASSESSING NUMERIC LIMITS FOR LIVING ORGANISMS IN BALLAST WATER, ASSESSING THE RELATIONSHIP BETWEEN PROPAGULE PRESSURE AND INVASION RISK IN BALLAST WATER 2 (Jan. 1, 2011), *available at* [http://water.epa.gov/polwaste/npdes/vessels/upload/nas\\_final\\_report\\_prepublication\\_version.pdf](http://water.epa.gov/polwaste/npdes/vessels/upload/nas_final_report_prepublication_version.pdf) [hereinafter NRC REPORT]).

<sup>20</sup> NRC REPORT, *supra* note 19, at 110.

<sup>21</sup> *Natural Res. Def. Council*, 804 F.3d at 160.

<sup>22</sup> *Id.*

<sup>23</sup> *Id.* at 154.

<sup>24</sup> *Id.* at 156.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 164-65.

<sup>27</sup> *Id.* at 165.

<sup>28</sup> *Id.* at 157.

Additionally, NPDES permits require that ships monitor and report the results of their TBELs and WQBELs to ensure they comply with water quality standards.<sup>29</sup> In order to comply with TBEL requirements, ships must “monitor the functionality of their ballast water treatment systems” to ensure they are working properly.<sup>30</sup> Ships must also monitor the concentrations of *E. coli* and enterococci, which are two indicator pathogens that, if present in high concentrations, indicate that treatment was not effective.<sup>31</sup> The WQBELs only require that ships report the “expected date, location, volume, and salinity of any ballast water to be discharged.”<sup>32</sup>

#### A. TBELs

The NRDC argued that the EPA did not properly apply the BAT in setting the TBELs at the IMO Standard because it chose the standard first, and then determined which shipboard systems could reliably meet that standard.<sup>33</sup> The court agreed, stating that the EPA overlooked the fact that the SAB report identified five systems that could achieve higher standards than the IMO Standard.<sup>34</sup> The court determined that the EPA should have first looked at these available technologies, then adjusted its standards accordingly, or explained why it would not do so.<sup>35</sup> By establishing lower water quality standards than available technologies were capable of achieving, the court determined that the EPA failed to reflect the BAT and to uphold the CWA’s commitment to continually developing technology toward the end of eliminating pollutant discharge.<sup>36</sup> In the court’s view, the EPA, therefore, “acted arbitrarily and capriciously and not in accordance with law in choosing the IMO standard for the TBELs.”<sup>37</sup>

The court also found that the EPA acted arbitrarily and capriciously by failing to consider onshore ballast water treatment technologies in setting the TBELs standards.<sup>38</sup> The EPA argued that its lack of consideration was justified because it did not have sufficient information to determine whether onshore treatment was available at the time.<sup>39</sup> However, the court concluded that the lack of information was the EPA’s own fault because it actively prevented the SAB from developing that information.<sup>40</sup> The court found that the EPA further ignored

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<sup>29</sup> *Id.* at 158.

<sup>30</sup> *Id.* at 161.

<sup>31</sup> *Id.* at 174.

<sup>32</sup> *Id.* at 161 (quoting U.S. ENVTL. PROT. AGENCY, VESSEL GENERAL PERMIT FOR DISCHARGES INCIDENTAL TO THE NORMAL OPERATION OF VESSELS (VGP) § 4.3(3)(d) (Mar. 28, 2013), available at [http://www3.epa.gov/npdes/pubs/vgp\\_permit2013.pdf](http://www3.epa.gov/npdes/pubs/vgp_permit2013.pdf) [hereinafter 2013 VGP]).

<sup>33</sup> *Id.* at 163.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 164.

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.* at 166.

<sup>40</sup> *Id.*

the considerable advantages of onshore treatment reported by the SAB, such as the availability of superior technology.<sup>41</sup> The court found that the EPA's failure to consider onshore treatment was arbitrary and capricious because the 2013 VGP was based on an incomplete study.<sup>42</sup>

The NRDC further argued that the EPA should have set numeric TBELs for viruses and protists, but the court found that the NRDC had not demonstrated there was sufficient data to reliably establish such limits.<sup>43</sup> The EPA did not act arbitrarily and capriciously in this instance because the court found that the EPA was unable to "determine treatment system performance at removing or eliminating viruses and protists" and establish effective limits.<sup>44</sup> The EPA's assurance that it would consider numeric TBELs for viruses and protists in the next VGP was sufficient to satisfy the court.<sup>45</sup>

The EPA exempted Lakers built before 2009 from the 2013 VGP's numeric effluent limits because neither shipboard nor onshore treatment technology was "available" for those ships.<sup>46</sup> The court agreed with the NRDC that the EPA's exemption of pre-2009 Lakers was arbitrary and capricious for three reasons.<sup>47</sup> First, the lack of technology for Lakers was an insufficient reason to exempt them because the purpose of the BAT is to force improvements in technology.<sup>48</sup> Second, the EPA's failure to consider onshore treatment also tainted its decision to exempt pre-2009 Lakers.<sup>49</sup> The EPA ignored the SAB's determination that onshore treatment could be especially helpful for pre-2009 Lakers to meet effluent limits.<sup>50</sup> Finally, the evidence showed that both pre and post-2009 Lakers were similarly situated in terms of the difficulties they face when treating ballast water.<sup>51</sup>

### *B. WQBELs*

The court found that the WQBEL in the 2013 VGP was too vague to provide guidance and ensure compliance with water quality standards.<sup>52</sup> The WQBEL in the 2013 VGP states, "Your discharge must be controlled as necessary to meet applicable water quality standards in the receiving water body or another water body impacted by your discharges."<sup>53</sup> The NAS Committee reported that it could not recommend a precise WQBEL standard and that the EPA should conduct further study, but the EPA refused to do so, opting instead to issue a narrative

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<sup>41</sup> *Id.* at 167.

<sup>42</sup> *Id.* at 166.

<sup>43</sup> *Id.* at 168-69.

<sup>44</sup> *Id.* at 168.

<sup>45</sup> *Id.* at 169.

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *Id.* at 170.

<sup>53</sup> *Id.* (quoting 2013 VGP, *supra* note 32, at § 2.3.1).

standard.<sup>54</sup> The court determined that the EPA should have at least required ships to take specific actions to protect against site-specific threats, rather than merely requiring them to meet applicable water quality standards.<sup>55</sup>

### C. Monitoring and Reporting Requirements

To comply with the TBELs, the 2013 VGP requires that ships monitor and report the functionality of their ballast water treatment systems and the concentrations of bacteria whose presence indicate the effectiveness of treatment.<sup>56</sup> The NRDC argued that the EPA should instead have required ships to monitor the concentration of living organisms because the current monitoring requirements do not indicate whether permittees are complying with the standards.<sup>57</sup> The court concluded that monitoring concentrations of living organisms was not required because current technology makes such testing cost-prohibitive and would require an inordinate amount of time to analyze the large samples necessary.<sup>58</sup>

To comply with the WQBELs, the EPA required only that ships report the “expected date, location, volume, and salinity of any ballast water to be discharge.”<sup>59</sup> The court stated that these reporting requirements did not actually indicate whether ships were complying with the WQBELs and were therefore arbitrary and capricious.<sup>60</sup> The court found that at the very least, the EPA should have required ships to report the actual date, location, volume, and salinity of discharges.<sup>61</sup>

## IV. CONCLUSION

The court found significant problems with the 2013 VGP and remanded the case back to the EPA for further proceedings.<sup>62</sup> However, in the last sentence of the court’s opinion, it stated that the VGP will remain in place until a new one is issued,<sup>63</sup> no doubt making the NRDC’s victory bittersweet in light of the fact that the relief sought was to set aside the permit.<sup>64</sup> The 2013 VGP will expire at midnight on December 19, 2018,<sup>65</sup> unless the EPA adopts a new VGP in accordance with this opinion.

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<sup>54</sup> *Id.* at 171.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* at 174.

<sup>57</sup> *Id.*

<sup>58</sup> *Id.* at 175.

<sup>59</sup> *Id.* (quoting 2013 VGP, *supra* note 32, at § 4.3(3)(d)).

<sup>60</sup> *Id.* at 175-76.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.* at 176.

<sup>63</sup> *Id.* at 177.

<sup>64</sup> *See* Pet’r Nat’l Wildlife Fed’ns Opening Br. at 44.

<sup>65</sup> 2013 VGP, *supra* note 32, at 1.