

## HAPHAZARD FEDERAL RULEMAKING MEETS JUDICIAL REVIEW: BALLAST WATER REGULATION RECEIVES NO DEFERENCE TO AGENCY INTERPRETATION

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### I. INTRODUCTION

The shipping industry poses an imminent threat to the spread of invasive species across the globe.<sup>1</sup> This spread occurs when vessels transport and release polluted and organism-ridden ballast water, i.e., water drawn in port and held in vessel tanks to increase stability during transit.<sup>2</sup> While other countries recognize and regulate the biological threat of ballast water discharges, to date, the United States’ environmental authority, the Environmental Protection Agency (EPA), does not have an enforceable rule in place that governs ballast water quality standards. The EPA developed the 2013 Vessel General Permit (2013 VGP) to regulate discharges from certain vessels.<sup>3</sup> But the ballast water provisions included in the 2013 VGP did not go uncontested. Pursuant to the jurisdictional requirements of

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1. Nat. Res. Defense Council v. U.S. EPA, 808 F.3d 556, 561 (2d Cir. 2015).

2. *Id.*

3. *Id.* at 562.

the Clean Water Act, the Natural Resources Defense Council (NRDC), an environmental group, petitioned the United States Court of Appeals for the Second Circuit in 2013 to review this rule.<sup>4</sup> Soon, more environmentalists and shipping companies joined the action.<sup>5</sup> Through this litigation, environmental groups hoped to prove that the EPA haphazardly constructed the rule, hastily put together the permitting process, and simply did not go far enough to regulate environmentally-damaging ballast water discharge.<sup>6</sup> The regulated community—shipping company owners and operators—hoped to prove that the EPA unlawfully circumvented the rulemaking process by moving too fast.<sup>7</sup>

This case note discusses why the Second Circuit correctly decided to side with the environmentalists and the shipping industry when it invalidated five of seven terms included in the EPA's 2013 VGP.<sup>8</sup> The importance of *NRDC*, which is the focus of this case note, is that a Federal court will invalidate a rule when the promulgating agency fails to thoroughly explain how and why it is necessary for it to regulate a previously-unregulated industry and when the agency fails to develop alternative ways of meeting that purpose and need.<sup>9</sup>

## II. BACKGROUND

Ships store ballast water in onboard tanks at ports in order to ensure that the vessel's weight is evenly distributed while in motion.<sup>10</sup> Because of the sheer amount of water that ships take on, as well as the fact that ships can sail in both local and international waters, ballast water has the potential to transport organisms, and in turn, spread pollution and invasive species when that water is released.<sup>11</sup> The EPA recognizes this threat to the environment and over the course of the last several years has introduced a variety of potential solutions to thwart the damage posed by ballast water.<sup>12</sup>

### A. *What is Ballast Water and Can it Be Replaced with a Better Alternative?*

Ballast water is seawater pumped into and housed in onboard ship tanks; it is essential for ships to function properly.<sup>13</sup> It ensures that ships will travel smoothly, and that loads are evenly distributed.<sup>14</sup> While alternatives to ballast water use are under development, no alternative methods currently exist.<sup>15</sup> Moreover, due to

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4. *Id.*; *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Incidental to the Normal Operation of a Vessel*, 78 Fed. Reg. 21,938 (2013); 33 U.S.C. § 1369 (b)(1) (1988).

5. *NRDC*, 808 F.3d at 562.

6. *Id.* at 569-70.

7. *Id.*

8. *Id.* at 584.

9. *Id.* at 573-74.

10. *Nw. Env'tl. Advocates v. EPA*, 537 F.3d 1006, 1012 (9th Cir. 2008).

11. *NRDC*, 808 F.3d at 561.

12. *See generally id.*

13. *Nw. Env'tl. Advocates*, 537 F.3d at 1012.

14. *Id.*

15. John Boylston, *Ballast Water Treatment – An Alternative*, 31 PAC. MARITIME MAGAZINE (Nov. 1, 2013).

their size, potential alternatives will not work for tankers and bulk carriers.<sup>16</sup> As alternatives to ballast water use do not currently exist, as well as the fact that potential alternatives to ballast water will not work for all vessels, the potential harm caused by untreated ballast water is expected to continue well into the future.<sup>17</sup>

*B. The Potential Environmental Threat Posed by Polluted Ballast Water*

Ballast water is often pumped into a ship's tanks and carried throughout the voyage, until it is released at its next port.<sup>18</sup> Organisms travel with the ballast water, and in turn, are released into a different ecosystem at the ship's destination.<sup>19</sup> If the organisms manage to survive the journey in a ship's ballast tank, then new, invasive species can be introduced into different ecosystems.<sup>20</sup> Organism-infused ballast water is released into U.S. waters at a rate of approximately 21 billion gallons each year.<sup>21</sup>

Ballast water discharge is likely one of the primary sources for the spread of invasive species, known as aquatic nuisance species (ANS).<sup>22</sup> "When species in ballast tanks are transported between waterbodies and discharged, they have the potential for establishing new, non-indigenous populations that can cause severe economic and ecological impacts."<sup>23</sup> The 2013 VGP Factsheet provides that the EPA expects ANS and pathogens, such as Hydrilla, Eurasian water milfoil, melaluca, European Green Crab, Viral Hemorrhagic Septicemia, and zebra mussels, to spread to the United States because of ballast water discharge.<sup>24</sup> These species, once introduced to new environments, can damage aquatic habitats and manmade infrastructure, which in turn ruin the ecosystem's balance.<sup>25</sup>

For example, the zebra mussel, which is one of the most devastating invasive species introduced into the U.S. by ballast water, has moved throughout waters in the United States since it was introduced to the U.S. in 1988.<sup>26</sup> Zebra mussel invasions have dire economic results because they can block intake grates at power plants and clog water-delivery pipes, which results in millions of dollars' worth of damage.<sup>27</sup> Zebra mussel invasions will reduce native mussel species by as much

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16. *Id.*

17. *Id.*

18. *Nw. Envtl. Advocates*, 537 F.3d at 1012.

19. *Id.*

20. *Id.*

21. *Id.*

22. EPA, NAT'L POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) VESSEL GENERAL PERMIT (VGP) FOR DISCHARGES INCIDENTAL TO THE NORMAL OPERATION OF VESSELS 68 (2013).

23. *Id.*

24. *Id.*

25. Petr's Brief at 10, *NRDC v. EPA*, 808 F.3d 556 (2d Cir. 2015).

26. *Id.* at 11.

27. *NRDC*, 808 F.3d at 562.

as 50% over a 10-year span, “causing the extinction of up to 140 [mussel] species.”<sup>28</sup> This designated ANS is among the many examples of how ballast water can harm the U.S. economy.<sup>29</sup>

In order to prevent the spread of invasive species through ballast water discharge, one of the EPA’s goals under the Clean Water Act (CWA) is to require ships to treat ballast water.<sup>30</sup> The EPA proposed to eliminate ballast water pollution by mandating onboard systems to test and treat ballast water.<sup>31</sup> The EPA required onboard systems that tested for concentrations of E. Coli and Enterococci in ballast water.<sup>32</sup> Testing requirements for other, larger organisms were not required because they were deemed technologically infeasible and economically impractical.<sup>33</sup>

Another option for treating ballast water is through onshore treatment methods.<sup>34</sup> While onshore ballast water treatment is not currently used, some consider it a potentially viable method for treating polluted water.<sup>35</sup> This system would be similar to the treatment of sewage, and could potentially be more effective than onboard treatment due to the advanced technology available on land versus on ships.<sup>36</sup> It is likely that onshore treatment would be more reliable than onboard treatment, as well as more economically feasible as compared to onboard treatment in the long run.<sup>37</sup>

### C. *The EPA’s Foundation for Water Regulation: The Clean Water Act*

The EPA’s authority to regulate ballast water results from Congress’s goal to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”<sup>38</sup> To achieve this goal, Congress enacted the CWA and the President appointed the EPA to enforce the statute and to develop rules and standards for determining who and what violates the CWA.<sup>39</sup>

Pursuant to the CWA, the EPA regulates and issues permits within the United States for the release of pollutants from any “point source” into “navigable waters.”<sup>40</sup> A point source is a particular entity that discernibly releases a pollutant.<sup>41</sup> As of 2008, EPA has listed ballast water as a pollutant from a point source within

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28. W. REG’L PANEL ON AQUATIC NUISANCE SPECIES, QUAGGA-ZEBRA MUSSEL ACTION PLAN FOR WESTERN U.S. WATERS (2010).

29. Other examples include plankton and various arthropods. Barbara Wilcox, *USGS Targets Tiny Stowaways in Ships’ Ballast Water*, USGS SCIENCE FEATURES (Apr. 8, 2013), [https://www2.usgs.gov/blogs/features/usgs\\_top\\_story/usgs-targets-tiny-stowaways-in-ships-ballast-water](https://www2.usgs.gov/blogs/features/usgs_top_story/usgs-targets-tiny-stowaways-in-ships-ballast-water).

30. *NRDC*, 808 F.3d at 566.

31. *Id.*

32. *Id.* at 568.

33. *Id.* at 582.

34. *Id.* at 572.

35. *NRDC*, 808 F.3d at 572-73.

36. *Id.* at 573.

37. *Id.*

38. 33 U.S.C. § 1251 (a) (1987).

39. *Id.*

40. *NRDC*, 808 F.3d at 563.

41. 33 U.S.C. § 1362 (14) (2014).

the meaning of the CWA.<sup>42</sup> Because ballast water is now categorized as a pollutant, ships releasing ballast water are required to hold a permit that provides how the ballast water must be discharged.<sup>43</sup> This permit is called a National Pollution Discharge Elimination System Permit (NPDES). Through the NPDES, the EPA sets standards for effluent limits (waterborne pollution), as well as standards for monitoring pollution levels in ballast water.<sup>44</sup>

In order to discharge pollutants that fall within the scope of the CWA, entities are required to obtain and comply with a NPDES permit, such as the VGP.<sup>45</sup> Having such a permit ensures that the party releasing the pollutant will comply with the requirements set forth in the VGP.<sup>46</sup> NPDES permits come in two varieties: individual and general.<sup>47</sup> An individual permit relates to a specific entity releasing a pollutant at a certain location.<sup>48</sup> A general permit, like the VGP, relates to a variety of dischargers who all share the same type of pollutant being discharged.<sup>49</sup> NPDES permits are issued by either the EPA or a state authority, and can impose both technology-based effluent standards, and water quality-based effluent standards.<sup>50</sup> The VGP imposes both types of standards.<sup>51</sup>

#### 1. The Basis for Ballast Water Regulation in the U.S.: International Standard

The United States was not the first jurisdiction to adopt a standard for regulating the potential pollution caused by ballast water.<sup>52</sup> In 2004, the International Maritime Organization (IMO) created *The International Convention for the Control and Management of Ships' Ballast Water and Sediments*.<sup>53</sup> This convention set the standard for the concentration of pollutants allowed in ballast water.<sup>54</sup>

The IMO is an agency authorized by the United Nations to set international standards for shipping, which includes environmental standards.<sup>55</sup> Through the IMO's convention for the *Control and Management of Ships' Ballast Water and Sediments*, which goes into effect on September 8, 2017, the IMO hopes to curb the damage caused by waterborne pollutants transported via ballast water.<sup>56</sup> The

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42. *Nw. Env'tl. Advocates*, 537 F.3d at 1021.

43. *NRDC*, 808 F.3d at 563.

44. *Id.*

45. *Id.* at 566.

46. *Id.*

47. *Id.*

48. *NRDC*, 808 F.3d at 563.

49. *Id.*

50. *Id.*

51. *Id.*

52. *Id.*

53. IMO, INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS (BWM), (Feb. 13, 2004), [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Control-and-Management-of-Ships%27-Ballast-Water-and-Sediments-\(BWM\).aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Control-and-Management-of-Ships%27-Ballast-Water-and-Sediments-(BWM).aspx).

54. *NRDC*, 808 F.3d at 562.

55. IMO, INTERNATIONAL MARITIME ORGANIZATION, available at <http://www.imo.org/en/About/Pages/Default.aspx> (last visited Mar. 2, 2018).

56. IMO, *supra* note 53.

IMO's standard applies to member countries' ships traveling in international traffic, so long as the member country ratified the convention.<sup>57</sup> While the United States is a member of the IMO, it did not ratify the Ballast Water Convention, and therefore, is not bound by it.<sup>58</sup>

Ship operators subject to the Ballast Water Convention must create a Ballast Water and Sediment Management Plan, create a ballast water log, and implement ballast water management procedures pursuant to the requirements of the Convention.<sup>59</sup> Concerning the ballast water management procedures, the Convention makes recommendations for the location in which ships should release ballast water.<sup>60</sup> Further, the Convention dictates the methods in which ships should exchange ballast water, as well as the maximum size and concentration of pollutants that ships can permissibly release.<sup>61</sup> The IMO also encourages ship operators to exceed the Convention's minimum requirements.<sup>62</sup>

## 2. The Basis for Ballast Water Regulation: American Standard

The United States issued its first proposal to regulate ballast water as a pollutant in 2008.<sup>63</sup> In 2008, the EPA issued its first VGP.<sup>64</sup> The 2008 VGP contained narrative descriptions about the limitation of pollutants in ballast water.<sup>65</sup> Because this standard was merely narrative, the court invalidated it, and the EPA was tasked with developing numeric standards for ballast water pollution in order to meet increasingly stringent water quality standards.<sup>66</sup> In an effort to revise the 2008 VGP in accordance with the changes mentioned, the EPA issued the 2013 VGP on March 28, 2013, which made significant revisions to the 2008 VGP by introducing numeric standards regulating pollution in the release of ballast water.<sup>67</sup> As ballast water from ships is a point source under the CWA, it was pertinent for the EPA to continually make available a NPDES permit for parties needing to release ballast water.<sup>68</sup> The 2013 VGP contains a multitude of standards, such as technology-based effluent limits (TBELs), water quality-based effluent limits (WQBELs), and monitoring requirements, which the 2008 permit lacked.<sup>69</sup> In creating the 2013 VGP, the EPA looked to the Science Advisory Board and the

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57. *Id.*

58. IMO, INTERNATIONAL MARITIME ORGANIZATION STATUS OF CONVENTIONS (Jan. 1, 2018), <http://www.imo.org/en/About/Conventions/StatusOfConventions/Documents/List%20of%20Conventions%20and%20their%20amndts.pdf>.

59. IMO, *supra* note 53.

60. *Id.*

61. *Id.* For the specific requirements of the convention, *see id.*

62. *Id.*

63. *NRDC*, 808 F.3d at 567.

64. *Id.* at 566.

65. *Id.* at 565-67.

66. *Id.* at 567.

67. 78 Fed. Reg. 21,938.

68. *NRDC*, 808 F.3d at 563.

69. *Id.* at 563-65, 567 (broadly, the VGP contains various provisions designed to reduce the amount of organisms in ballast water, which it implements through setting technology-based effluent limits (TBELs) and water quality-based effluent limits (WQBELs)).

National Research Council for research and scientific guidance in order to promulgate a rule that would provide that ballast water discharge in U.S. waters could not negatively impact the environment.<sup>70</sup>

Specifically, the 2013 VGP targets ships traveling in the Great Lakes.<sup>71</sup> Ballast water pollution is most prolific in the Great Lakes.<sup>72</sup> Because of the short travel time between ports, organisms are more likely to survive the journey in ballast tanks of Great Lake ships, and invade new ecosystems.<sup>73</sup> Because of this occurrence, the EPA regulators specifically target ships traveling on the Great Lakes (Lakers).<sup>74</sup> The 2013 VGP specifically states that all Lakers built after January 1, 2009 must comply with the TBELs and QBELs set forth in the rule.<sup>75</sup>

The first portion of the 2013 VGP focused on TBELs, which would use technology in order to reduce the amount of pollution in ballast water.<sup>76</sup> The EPA set the TBELs at IMO 0-2 numeric standard, which meant that the relevant standard for pollution allowed in ballast water was the same as the IMO.<sup>77</sup> This standard limited pollution in ballast water discharge to fewer than ten organisms, fifty micrometers or larger, within a cubic meter of ballast water.<sup>78</sup> It also limited discharge of organisms of those under fifty micrometers to ten or fewer per cubic meter of water.<sup>79</sup> Further, it specifically limited the concentration of three pathogens, Cholera, E. Coli, and Enterococci, to under a specified amount per unit of ballast water.<sup>80</sup>

Next, the rule specified QBELs, which are enforced in addition to TBELs.<sup>81</sup> These QBELs are narrative in nature and require that ships entering the Great Lakes perform ballast water exchanges before entering the Lakes.<sup>82</sup> Also, the QBELs stated that all ballast water discharge “must be controlled as necessary to meet applicable water quality standards in the receiving water body or another water body impacted by [the] discharge[.]”<sup>83</sup>

The rule also specifies the methods by which operators or regulated vessels are able to ensure that they comply with the rule.<sup>84</sup> The rule identifies two distinct standards for monitoring: one for TBELs, and another for QBELs.<sup>85</sup> The monitoring requirement for the TBELs requires that vessel operators make sure that

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70. *Id.* at 566.

71. *Id.* at 568.

72. *Id.* at 562.

73. *NRDC*, 808 F.3d 556, at 562.

74. *Id.* at 568.

75. *Id.* at 562.

76. *Id.* at 567.

77. Final Rule, Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels (VGP), 2013 VGP § 6.15.5(a) (Dec. 19, 2013).

78. *NRDC*, 808 F.3d at 567.

79. *Id.*

80. *Id.*

81. *Id.* at 568.

82. *Id.*

83. 2013 VGP, *supra* note 77, § 2.3.1.

84. *NRDC*, 808 F.3d at 568.

85. *Id.*

the onboard ballast water treatment systems are operating in an appropriate manner, which can be determined by ensuring that the system is functioning “according to the manufacturers’ requirements.”<sup>86</sup> Also, under TBEL requirements, vessel operators must monitor ballast water for concentrations of two indicator pathogens, E. Coli and Enterococci.<sup>87</sup> This so-called “effluent biological organism monitoring” is accomplished by taking small ballast water samples between one and four times per year.<sup>88</sup>

While both TBELs and WQBELs require ship operators to show compliance via the reporting of monitoring results, the standard for compliance with WQBELs is less stringent because it does not require the use of technology to reduce the concentration of pollutants to a requisite level.<sup>89</sup> Pursuant to the WQBELs, ships must report the origin of their ballast water, which includes the location, date, volume, and temperature of the water.<sup>90</sup> Then, ships must report the “expected date, location, volume, and salinity of any ballast water to be discharged.”<sup>91</sup>

#### D. Case Law Surrounding Ballast Water Regulation

The issue surrounding ballast water regulation pursuant to the CWA first arose out of *Natural Resources Defense Council v. U.S. EPA*, concerning the 2013 VGP.<sup>92</sup> Only five years prior, ballast water had become a regulated point source in the 2008 case, *Northwest Environmental Advocates v. U.S. EPA*.<sup>93</sup> The Ninth Circuit Court of Appeals deemed ballast water a pollutant for the first time, and determined that the EPA exceeded its authority under section 402 of the CWA in exempting ballast water from regulation.<sup>94</sup> Therefore, the Court’s conclusions in both *Northwest Environmental Advocates* and *Natural Resources Defense Council* set the stage for future ballast water regulation.<sup>95</sup>

1. *Northwest Environmental Advocates v. U.S. EPA*, 537 F.3d 1006 (9th Cir. 2008).

The EPA’s first attempt to regulate ballast water in 2008 resulted in a similar outcome to the decision in the present case.<sup>96</sup> In *Northwest Environmental Advocates*, the United States Ninth Circuit Court of Appeals, in affirming the District Court, noted that while preventing irreparable environmental harm caused by ballast water pollution is urgent, the EPA deserved an adequate amount of time to tackle this complicated and nuanced issue.<sup>97</sup> In the end, the Court settled on a two-year period to allow the EPA to readdress the regulation.<sup>98</sup>

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86. *Id.*

87. *Id.*

88. *Id.*

89. *NRDC*, 808 F.3d at 563, 565, 568.

90. 2013 VGP, *supra* note 77, § 4.3.

91. *NRDC*, 808 F.3d at 568 (emphasis removed).

92. *See generally NRDC*, 808 F.3d 556.

93. *See generally Nw. Env'tl. Advocates*, 537 F.3d 1006.

94. *Id.* at 1010.

95. *See generally Nw. Env'tl. Advocates*, 537 F.3d 1006; *see also NRDC*, 808 F.3d 556.

96. *See generally Nw. Env'tl. Advocates*, 537 F.3d 1006.

97. *Id.* at 1026.

98. *Id.* at 1025.



As highlighted by Northwest Environmental Advocates' reply brief, one of the symptoms leading the Court to invalidate the EPA's regulation in *Northwest Environmental Advocates* was likely that the regulation was unreasonable under a deferential *Chevron* step two analysis.<sup>99</sup> According to the brief, the EPA's lack of effective regulation concerning the control of ballast water disposal was an unreasonable interpretation of the Clean Water Act because it was an ineffective attempt to thwart ecological damage caused by ballast water discharge, and would likely fail to mend environmental and economic costs caused by waterborne pollution.<sup>100</sup> In this case, the Court ultimately agreed with the petitioner, Northwest Environmental Advocates, and the District Court because the EPA did not act in accordance with the law through its attempted regulation of pollution releasing point sources.<sup>101</sup>

2. *NRDC v. U.S. EPA*, 808 F.3d 556 (2d Cir. 2015).

The Natural Resources Defense Council, along with several other advocacy groups, sued the EPA in 2013.<sup>102</sup> With several environmental advocacy groups filing petitions for review concerning the 2013 VGP in various United States Circuit Courts of Appeals, the cases were consolidated and assigned to the United States Court of Appeals for the Second Circuit in order to settle the issue.<sup>103</sup> The NRDC alleged that the 2013 VGP's pronouncement that ballast water would be regulated by TBELs at the IMO standard and through WQBELs was arbitrary and capricious, and therefore, invalid.<sup>104</sup> NRDC contended that the EPA's monitoring and reporting requirements concerning the contents of tested ballast water were insufficient, and therefore, arbitrary and capricious.<sup>105</sup> Further, NRDC claimed that the EPA acted arbitrarily and capriciously by failing to consider other alternatives to TBELs, such as onshore water treatment.<sup>106</sup> Finally, the NRDC asserted that the EPA acted arbitrarily and capriciously by exempting Lakers built before January 1, 2009, from regulation.<sup>107</sup>

The EPA defended the 2013 VGP's validity.<sup>108</sup> First, the EPA argued that it did not limit the Science Advisory Board (SAB) to the IMO standard.<sup>109</sup> Further, the EPA claimed that it did not need to consider onshore treatment because there was no evidence to support its viability.<sup>110</sup> The EPA also noted that it did not believe that pre-2009 Lakers could be fitted with the appropriate technology, therefore justifying their exemption from the regulation.<sup>111</sup> Lastly, the EPA as-

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99. Petr's Reply Brief at 9, *Nw. Env'tl. Advocates v. EPA*, 537 F.3d 1006 (9th Cir. 2008).

100. *Id.*

101. *Nw. Env'tl. Advocates*, 537 F.3d at 1027.

102. *NRDC*, 808 F.3d 556, at 562.

103. *Id.* at 561.

104. *Id.* at 569-70.

105. *Id.* at 576.

106. *Id.* at 571-77.

107. *NRDC*, 808 F.3d at 576.

108. *See generally id.*

109. *Id.* at 571.

110. *Id.* at 578-79.

111. *Id.* at 576.

serted that the narrative WQBEL standards, as well as its monitoring requirements, were sufficient to prevent the VGP's invalidation, as the agency contended that the requirements were specific enough for operators to understand how to achieve compliance as well as catch those who fail to comply.<sup>112</sup>

The Second Circuit Court of Appeals ruled in the NRDC's favor regarding the 2013 VGP.<sup>113</sup> The Court determined that all aspects of the 2013 VGP challenged by the NRDC were arbitrary and capricious, except for its contention that the TBEL's standard for viruses and protists, and its subsequent monitoring and reporting requirement.<sup>114</sup> The Second Circuit left the rule in place, however, until the EPA issues a revised rule.<sup>115</sup>

### III. ANALYSIS

The spread of invasive species results in drastic economic and environmental harm, which must be addressed through effective rulemaking and enforcement.<sup>116</sup> The decision in *NRDC v. EPA* sets the stage for how a Federal agency must properly promulgate a stringent regulation aimed to reduce the spread of invasive species by ocean and lake going vessels and demonstrates how the EPA did not achieve the necessarily stringent and specific standards to prevent and prohibit harm caused by unauthorized and/or untreated ballast water discharge.<sup>117</sup>

The Court made a significant point: During the rulemaking process, the EPA must thoroughly study and disclose the purpose and need the rule seeks to address in order to create a regulation that most effectively furthers Congress's goals enumerated in the CWA, thereby surviving the scrutiny of judicial review.<sup>118</sup>

The Court's decision to overturn the EPA's rule in *NRDC* represents a positive step in American regulatory law because the Court's holding ensures that regulation of previously unregulated processes must further Congress's goals, as stated in the CWA; but at the same time, still be thoroughly developed since the agency's decision will likely have a lasting impact on the industries the EPA seeks to regulate and to the environment.<sup>119</sup>

#### A. *The Court's Decision to Deny Deference in NRDC*

In *NRDC*, the Court employed the Administrative Procedure Act (APA) in order to analyze the reasonableness of the EPA's promulgation and its implementation of the NPDES permit that applied to ballast water discharge.<sup>120</sup> In its review, the Court applied section 706(2)(A) of the APA.<sup>121</sup> This section of the APA provides that an agency's interpretation of the statute that it implements through rulemaking cannot be "arbitrary, capricious, an abuse of discretion, or otherwise

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112. *NRDC*, 808 F.3d at 577-80.

113. *Id.* at 584.

114. *Id.*

115. *Id.*

116. *Id.* at 561.

117. *NRDC*, 808 F.3d at 584.

118. *Id.* at 573-74.

119. *See generally id.*

120. *Id.* at 569.

121. *Id.*; 5 U.S.C. § 706(2)(A) (1966).

not in accordance with law.”<sup>122</sup> In determining whether the agency’s rulemaking is within the bounds of the law, the judiciary gives the agency great deference concerning regulations involving scientific matters of the agency’s particular specialty.<sup>123</sup> Nevertheless, courts typically will not defer to an agency’s expertise if they find that the rulemaking is arbitrary and capricious.<sup>124</sup> In determining if the agency’s action was arbitrary and capricious, the Court considered:

whether the agency “relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.”<sup>125</sup>

While the Court offers greater deference towards factual questions of a scientific area within the agency’s expertise, the agency must still have “examined the relevant data and articulated a satisfactory explanation for its action.”<sup>126</sup>

Further, employing an analysis similar to the one the Second Circuit used in *NRDC* leads to a liberal determination as to whether an agency’s regulation is lawful.<sup>127</sup> This is illustrated by the fact that the agency’s rule will likely be upheld if it is a “permissible construction of the statute.”<sup>128</sup> Therefore, it is unlikely that an agency’s rule will be struck down when a reviewing court is using a deference doctrine.<sup>129</sup> In fact, it is reported that an agency’s regulation is ruled permissible 76% of the time and “invalidations are extremely rare” when a court utilizes a deference doctrine.<sup>130</sup>

### B. Why the Court Denied Deference

It is statistically unusual that the Court in *NRDC* determined that five out of the seven provisions of the 2013 VGP were arbitrary and capricious.<sup>131</sup> However, this determination was the appropriate result.<sup>132</sup> The Court held that the EPA did not properly develop a regulation for controlling ballast water discharge because developing a rule to regulate ballast water is an enormous undertaking, and the

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122. *NRDC*, 808 F.3d at 569 (citing 5 U.S.C. § 706(2)(A) (1966)). See Heidi Marie Wertz, *Counting On Chevron?*, 38 ENERGY L.J. 297, 319 (2017); see also Bethany A. Davis Noll & Denise A. Grab, *Deregulation: Process and Procedures that Govern Agency Decisionmaking in an Era of Rollbacks*, 38 ENERGY L.J. 269, 278 (2017).

123. *NRDC*, 808 F.3d 556, at 569.

124. *Id.*

125. *Id.* (quoting *Islander E. Pipeline Co. v. McCarthy*, 525 F.3d 141, 150-51 (2d Cir. 2008)).

126. *Id.* (quoting *Islander E. Pipeline Co.*, 525 F.3d at 151).

127. *NRDC*, 808 F.3d at 569; *Chevron v. NRDC*, 467 U.S. 837 (1984).

128. *Id.*

129. See Seth P. Waxman, *The State of Chevron: 15 Years after Mead*, 68 ADMIN. L. REV. ACCORD 4 (2016).

130. *Id.* See generally Elizabeth Magill, *Step Two of Chevron v. Nat. Res. Defense Council*, ABA ADMIN. L. SECTION 2 (2011).

131. *NRDC*, 808 F.3d at 584.

132. *Id.*

EPA did not take a sufficient amount of time to set standards for a process—ballast water discharge—that has historically gone unregulated.<sup>133</sup>

While the Court decided to invalidate the 2013 VGP in *NRDC* because of the EPA's decision to set TBELs at the IMO standard, exempt Lakers built before 2009, and implement narrative standards for WQBELs, the most important reason for the Court's rejection of the rule is the EPA's failure to consider other methods of ballast water treatment, such as the use of onshore facilities.<sup>134</sup> The EPA's decision to forgo considering onshore treatment methods was likely contrary to Congress's goal for the CWA that the EPA administers, which is to "push[] industries toward the goal of zero discharge as quickly as possible."<sup>135</sup> Further, in deciding what is the BAT for a process such as ballast water treatment, the EPA is tasked with deciding what would provide the "best control and treatment that [has] been or [is] capable of being achieved."<sup>136</sup> Consequently, with the 2013 VGP as it stood, the EPA made a shortsighted decision to lock the shipping industry into shipboard ballast treatment, which would have a long-term environmental impact.<sup>137</sup>

#### 1. Agencies Must Explore All Options When Regulating in New Areas

The Court's ultimate decision to defy the odds and place the EPA's 2013 VGP within the class of 24% of cases that are denied deference was likely due to the fact that the Court gave the EPA an extended period of time to develop a proper solution, and further, the Court wanted the EPA to suitably analyze the best method for ballast water treatment, which it did not do.<sup>138</sup> This idea is illustrated by the notion that the EPA asked the SAB to provide the agency with recommendations for ballast water treatment, which the EPA would in turn utilize to create a rule that furthers the purpose of the Clean Water Act and has a positive lasting impact on the environment.<sup>139</sup>

However, while the EPA took one of the SAB's recommendations to require certain ships to utilize shipboard ballast water treatment systems, the EPA made a concerted effort to thwart the SAB's study by limiting the committee to shipboard treatment methods.<sup>140</sup> Through this stage of the rulemaking process, the EPA failed to complete a necessary step, which was to satisfy the CWA by determining a method for ballast water treatment that took into account the BAT in order to achieve the statute's goal of eliminating the discharge of pollutants.<sup>141</sup>

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133. *Nw. Envtl. Advocates*, 537 F.3d at 1026.

134. *NRDC*, 808 F.3d at 584.

135. *Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985).

136. Petr's Brief, *supra* note 25, at 32-33 (quoting R.C. Anderson & P. Kobrin, *Regulatory Economic Analysis at the EPA, Prepared under EPA Cooperative Agreement*, CR822795-01 (June 2000) (emphasis in original)).

137. *NRDC*, 808 F.3d at 575.

138. Petr's Brief, *supra* note 25. See *NRDC*, 808 F.3d 556; *Nw. Envtl. Advocates*, 537 F.3d at 1025-26.

139. *NRDC*, 808 F.3d at 566.

140. *Id.* at 573.

141. *Id.* at 563, 573.

According to the Court, the EPA never took the necessary step to determine the best method for treating ballast water.<sup>142</sup> Instead, the EPA merely asked the question of whether or not shipboard methods could meet certain standards for treating ballast water.<sup>143</sup> The EPA's confinement of the determination of the best method for treatment of ballast water to shipboard systems was contrary to the CWA's notion that the EPA must require the "application of the best available technology economically achievable," in an effort to eliminate pollutants.<sup>144</sup>

## 2. Agencies Must Account for the Long Term Ramifications of Regulation

The court's atypical decision not to defer to the EPA, despite the agency's expertise in this particular area, and ultimately invalidate the 2013 VGP, was conceivably a result of the fact that the EPA's decision to require shipboard treatment was shortsighted, and the long-term effects of the haphazardly constructed rule were not given adequate thought.<sup>145</sup> Through the SAB's study of the possible treatment options for ballast water, according to the Court in *NRDC*, the panel thoroughly researched the possibility of onshore treatment facilities, yet the EPA opposed the research from being included in the report that led to the implementation of the rule.<sup>146</sup>

According to the NRDC's brief to the Court prior to the decision in the present case, the SAB discovered through its research that onshore treatment would be a viable option, and could possibly be highly effective.<sup>147</sup> However, the EPA ignored the studies and claimed that because no onshore facilities currently existed, as well as the fact that there is not much data available on the issue, the studies must be eliminated from the report.<sup>148</sup> According to the brief, the EPA must have at least considered the report on onshore treatment, despite the fact that onshore treatment was not currently available.<sup>149</sup> Thus, if the EPA had merely considered the possibility of onshore treatment in its report, it is possible that the Court would have considered this mere contemplation to be enough to afford the agency deference for its choice of technology for ballast water treatment.<sup>150</sup> The EPA's decision to use shipboard treatment would likely have been upheld because courts have held that the agency will still be afforded deference so long as its decision carries out the statutory mandate, even if its choice is not ideal.<sup>151</sup>

Further, in reaching its decision, the Court in *NRDC* relied on the SAB's statement that the two methods for ballast water treatment should each get fair and thorough consideration because the decision will represent the area in which funds

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142. *Id.* at 573.

143. *Id.*

144. 33 U.S.C. § 1311(b)(2)(A) (1995); *NRDC*, 808 F.3d at 573.

145. *NRDC*, 808 F.3d at 575-76.

146. *Id.* at 573.

147. Petr's Brief, *supra* note 25, at 30. See Newton Narciso Pereira & Hernani Luiz Brinati, *Onshore Ballast Water Treatment: A Viable Option for Major Ports*, 64 MARINE POLLUTION BULLETIN 2296-2304 (2012).

148. *Id.* at 31.

149. *Id.* at 31-32.

150. *Id.* See *Am. Petroleum Inst. v. EPA*, 858 F.2d 261, 263-64 (5th Cir. 1988).

151. *Am. Petroleum Inst.*, 858 F.2d at 263-64.

will be used to develop infrastructure, as well as the treatment approach that the industry is required to comply with for the foreseeable future.<sup>152</sup> In reaching its conclusion to invalidate the 2013 VGP for its choice of water treatment method, the Court noted that the agency's lack of consideration of onshore treatment represented its failure in the rulemaking process.<sup>153</sup> This idea was supported by the NRDC when it stated that the EPA's hastily adopted standard for ballast water treatment was ill-advised because the industry will have to adapt to the regulation, while in the future, the EPA may reevaluate its decision and attempt the difficult task of revising its rule in order to require onshore treatment, which is considered better-suited to curb the spread of ballast water pollution.<sup>154</sup>

The resulting outcome in *NRDC* was correct because the EPA's determination of the required method for treating ballast water did not deserve deference since it was arbitrary and capricious, and was therefore unreasonable.<sup>155</sup> With this decision, the Court furthers the policy that the EPA, as well as other administrative agencies, must explain its decision and give a "fair and thorough consideration" to other possibilities when regulating in a new area.<sup>156</sup> Therefore, the decision in *NRDC* demonstrates the fact that while courts often defer to the agency's decision, it should by no means be expected, as agencies are still required to act reasonably and explain their actions.<sup>157</sup> *NRDC* represents that this notion is especially true for agency actions concerning newly-implemented regulations in previously-unregulated processes.<sup>158</sup> This outcome is ideal as it solidifies the fact that these rules are particularly important because regulations in new areas have long-lasting implications that require exceptional capital investments, as well as impacts on the sanctity of the environment in which we live.<sup>159</sup>

#### IV. CONCLUSION

The Second Circuit's decision in *NRDC* furthers the notion that agencies must explain their actions during the rulemaking process, especially if the regulation covers a previously unregulated area.<sup>160</sup> Moreover, the regulation must still advance the agency and the statute's interest.<sup>161</sup> This explanation, according to the court, must go further than mere justification; the explanation must give "fair and thorough consideration" to other possibilities, such as onshore treatment methods.<sup>162</sup> This notion is likely what caused the Court in *NRDC* to defy the odds and deny granting deference to the agency, thus requiring the EPA to supply the Court with greater explanation for its actions.<sup>163</sup>

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152. *NRDC*, 808 F.3d at 575-76.

153. *Id.*

154. Petr's Brief, *supra* note 25, at 35-36.

155. *NRDC*, 808 F.3d at 570.

156. *Id.* at 572-74.

157. *Id.* at 569.

158. *See generally id.*

159. *Id.* at 562, 575-76.

160. *NRDC*, 808 F.3d at 573-74.

161. *Id.* at 573-74.

162. *Id.* at 572-74.

163. *Id.* at 584.

This case note highlighted that moving forward, the Second Circuit has made it known that it will invalidate agency rules if the agency acted arbitrarily and capriciously by failing to properly explain its actions or consider alternatives.<sup>164</sup> From the EPA's perspective, however, this means greater expense to the agency because it must rework the rule in order to pass judicial review.<sup>165</sup>

Yet, this is a positive step for both industry and American regulatory law, as the Court is instructing the agency on the requirements of correctly implementing the CWA and ensuring that industries are not subject to arbitrary rules, which in turn leads to less litigation and more efficient spending.<sup>166</sup> While the long-term future of ballast water regulation is currently uncertain, this case note illustrates that the *NRDC* court took the correct stance by concluding that agencies should not expect courts to defer to the agency's expertise and rubberstamp rules without thoroughly presented research and adequate attention paid to alternative possibilities.<sup>167</sup> Hopefully agencies will take notice of this court's opinion, as it is in the best interest of the regulated industry, the agency itself, as well as the environment that we all share.<sup>168</sup>

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164. *Id.*

165. *NRDC*, 808 F.3d at 584.

166. *See generally id.*

167. *See generally id.*

168. *See generally id.*

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