CALIFORNIA COASTAL COMMISSION
455 MARKET STREET, SUITE 228
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400

Th 6a

CD-0007-20 (EPA)

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EXHIBITS

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CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

November 25, 2020

Mr. Jack Faulk
Oceans and Coastal Management Branch
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Dear Mr. Faulk:

RE: COMMENTS ON THE PROPOSED VESSEL INCIDENTAL DISCHARGE NATIONAL STANDARDS OF PERFORMANCE (DOCKET ID EPA-HQ-OW-2019-0482)

The California State Water Resources Control Board (State Water Board) submits the following comments to the U.S. Environmental Protection Agency (U.S. EPA) on the proposed Vessel Incidental Discharge National Standards of Performance (proposed regulations; Docket ID EPA-HQ-OW-2019-0482). Thank you for this opportunity to provide comments.

In 2018, Congress adopted the Vessel Incidental Discharge Act (VIDA), which requires the U.S. EPA to establish proposed regulations on vessel incidental discharges. Congress has charged the U.S. EPA with establishing environmentally sound standards that apply to discharges incidental to the normal operation of vessels. However, U.S. EPA's proposed regulations exceed the U.S. EPA's authority under VIDA in the regulation of in-water cleaning and capture (IWCC) system discharges. The proposed regulations contain standards that do not adequately protect the environment or human health and that do not meet the technology-based standards applicable to the U.S. EPA's proposed regulation under VIDA. The proposed regulations would violate the U.S. EPA's legal authority and compromise the State's ability to protect public health and the environment. We urge the U.S. EPA to consider the following comments and modify the proposed regulations accordingly. We also support the California State Lands Commission's comment letter and incorporate it by reference.

I. The proposed regulations related to IWCC system discharges overstep the U.S. EPA's authority under VIDA

VIDA requires the U.S. EPA to establish standards for discharges incidental to the normal operation of vessels. However, the provisions in the proposed regulations related to IWCC system discharges would, if finalized, exceed the U.S. EPA's authority under VIDA by regulating these discharges as incidental discharges associated with the normal operation of vessels.

VIDA defines discharges incidental to the normal operation of a vessel as discharges that include "(i) graywater, bilge water, cooling water, weather deck runoff, ballast water, oil water separator effluent, and any other pollutant discharge from the operation of a marine propulsion system, shipboard maneuvering system, crew habitability system, or installed major equipment, such as an aircraft carrier elevator or a catapult, or from a protective, preservative, or absorptive application to the hull of the vessel; and (ii) a discharge in connection with the testing, maintenance, and repair of a system described in clause (i) whenever the vessel is waterborne;" as well as "[a]ny discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes[.]" (33 U.S.C. § 1322(p)(a)(12); 40 C.F.R. § 122.3(a).)

IWCC system discharges do not fit into VIDA's definition of discharges incidental to the normal operation of vessels. IWCC system discharges result from the use and operation of systems that are intended to "capture coatings and biofouling organisms, filter biofouling organisms from the effluent, and minimize the release of biocides." (85 Fed. Reg. 67868.) These discharges are not incidental because such discharges are not from the vessel on which an IWCC system is being used; rather, the effluent is transported to a processing facility where it is discharged. As such, it is not appropriate to classify discharges from a barge or on-land facility, which are not regulated by VIDA, as incidental.

Furthermore, the U.S. EPA itself has not in the past regarded IWCC system discharges as incidental to the normal operation of a vessel. Such discharges were not regulated under the 2013 iteration of the U.S. EPA's Vessel General Permit for Discharges Incidental to the Normal Operation of a Vessel (VGP), which applied to the same discharges now subject to the U.S. EPA's proposed regulation under VIDA. In its Clean Water Act section 401 certification of the VGP, California prohibited almost all in-water hull cleaning activities, including underwater ship husbandry discharges. At that time, the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay Regional Water Board) had already developed an IWCC best management practice that the State Water Board would eventually determine satisfies the best available technology economically feasible standard referenced in California's certification. That technology is discussed in more detail below.

The U.S. EPA has not stated in its proposed regulations why discharges from IWCC systems, which are not discharges incidental to the normal operation of vessels, should

not be regulated through other means, including through state regulation protective of water quality standards – a standard the proposed regulations fail to meet, as discussed further in this letter. In considering the definition and scope of the proposed regulations, it is unlawful for the U.S. EPA to attempt to regulate IWCC system discharges under VIDA.

Further, section 902(a)(4) of VIDA states that its purpose is to "preserve the flexibility of States, political subdivision, and certain regions with respect to the administration and enforcement of standards relating to the discharge of pollutants from vessels engaged in maritime commerce and transportation." By attempting to regulate a non-incidental discharge, the U.S. EPA contradicts the purpose of VIDA.

II. The proposed regulations contain standards that may not adequately protect the environment or human health

Clean Water Act Section 303(c) allows States to promulgate water quality standards that are at least as stringent as those standards contained in the Clean Water Act itself, if approval is granted by the U.S. EPA. The U.S. EPA has approved numerous standards that currently apply to the California waters. However, the proposed regulations contain standards that are less stringent than those promulgated by the State, which violates the Clean Water Act. Table 1, pertaining to residual chlorine, illustrates one such discrepancy between California's standards and the standards contained in the proposed regulation regarding ballast water management system discharges.

The State Water Board requests that the U.S. EPA revise the proposed regulations to contain standards at least as stringent as those promulgated by the States, in compliance with the intent of the Clean Water Act.

Additionally, the State Water Board supports the U.S. EPA's preferred approach regarding in-water hull and niche cleaning: "Whenever possible, EPA suggests that drydock cleaning is the preferred [best management practice] to in-water hull and niche cleaning. Drydock schedules should be factored into the inspection and management of areas susceptible to biofouling." (85 Fed.Reg. 67867-67868.) The proposed regulation should require the use of drydock for hull cleaning whenever possible. This best management practice will minimize discharges that may negatively impact human health and the environment.

The proposed regulations also state that "there may be places where in-water cleaning should not occur, notably in federally-protected waters, based on the unique resources present in those areas." (85 Fed.Reg. 67868.) The State Water Board also supports this approach. However, the proposed regulations do not include language to prohibit in-water hull and niche cleaning in state-protected waters and should be revised accordingly. For instance, the Water Quality Control Plan for Ocean Waters of California (California Ocean Plan) allows for the designation of State Water Quality

Table 1: Residual Chlorine Standards in the Proposed Regulation Versus California Water Quality Objectives

Constituent	**Jurisdiction**	**Standard**	**Source**
Chlorine Dioxide	Federal	200 µg/L*	Proposed regulations, subpart C § 139.10(d)(2)(i)
Total Residual Oxidizer (Chlorine or Ozone)	Federal	100 µg/L*	Proposed regulations, subpart C § 139.10(d)(2)(ii)
Total Chlorine Residual	State of California (Ocean Waters)	60 µg/L	Water Quality Control Plan for Ocean Waters of California, Chapter II, Table 3
Total Chlorine Residual	State of California (Inland Surface Waters, Enclosed Bays, and Estuaries)	20 µg/L	U.S. EPA Ambient Water Quality Criteria for Chlorine as used to interpret narrative aquatic toxicity water quality objectives in Water Quality Control Plans for Regional Water Quality Control Boards of California

* Table Note: Alternatively, a standard of non-detect for total chlorine residual with, at minimum, a method detection limit of 20 µg/L, or a requirement for a dechlorinating agent residual would be protective of state water quality standards for chlorine.

Protection Areas, including Areas of Special Biological Significance and General Protection areas, to protect and enhance ocean waters of the State.

There are presently 34 Areas of Special Biological Significance in California's ocean waters. The State has designated these areas to protect species or biological communities and assure maintenance of natural water quality. The California Ocean Plan contains implementation provisions for Areas of Special Biological Significance that include a prohibition on the discharge of waste. General Protection areas, as well as other types of marine managed areas described in the California Ocean Plan, such as State Marine Reserves, also have restrictions that may prohibit or discourage in-hull and niche cleaning in or near these regions. To ensure the continued protection of these areas and attainment of California's water quality standards, the proposed regulations should be revised, consistent with the purpose of the Clean Water Act and the U.S. EPA's acknowledgement that there are places where in-water cleaning should

not occur, to include language that prohibits in-water hull and niche cleaning in these state-protected waters.

Furthermore, the proposed regulations should include language that prohibits in-water hull and niche cleaning in areas which are listed for impairments, as prescribed by Section 303(d) of the Clean Water Act, for constituents associated with in-water hull cleaning and niche activities. For example, in-water hull cleaning on ships with copper- or zinc-based hull coatings may release quantities of copper or zinc that are harmful to the environment and human health, as discussed in greater detail in Section IV of this comment letter. As such, in-water hull cleaning without the use of an IWCC system on ships with copper- or zinc-based hull coatings should be prohibited, at a minimum, in waters that are listed as impaired for copper or zinc. Examples of waterbodies that are listed as impaired for copper or zinc in California and have associated water-quality attainment strategies, such as prohibitions, include San Diego Bay, Newport Bay, Los Angeles/Long Beach Harbor, Santa Barbara Harbor, Morro Bay, and San Francisco Bay. While VIDA provides a mechanism to establish State No-Discharge Zones upon application by a State and approval by the U.S. EPA Administrator, the process is onerous and it is unnecessary for these waters in particular, as the Water Boards have already made compelling cases regarding the need for their protection and established special requirements to protect their water quality.

Finally, to ensure the adequate protection of the environment and human health, we encourage the U.S. EPA to consider revising the proposed regulations based on the California State Land Commission's suggested revisions contained in their comment letter, particularly with regards to biofouling.

III. The standards in the proposed regulations do not meet technology-based requirements in VIDA

VIDA states that applicable standards shall require "(I) with respect to conventional pollutants, toxic pollutants, and nonconventional pollutants (including aquatic nuisance species), the application of the best practicable control technology currently available; (II) with respect to conventional pollutants, the application of the best conventional pollutant control technology; and (III) with respect to toxic pollutants and nonconventional pollutants (including aquatic nuisance species), the application of the best available technology economically achievable for categories and classes of vessels, which shall result in reasonable progress toward the national goal of eliminating discharges of all pollutants" (33 U.S.C. § 1322(p)(4)(B)(I)).

However, the standards in the proposed regulation do not meet these technology-based requirements. For instance, the standards for hull cleaning are vague and make no reference to specific cleaning methods or technologies, which contradicts requirements for technology-based standards set forth in VIDA. For additional details on this issue and proposed changes, please see section IV of this comment letter below.

IV. The standards in the proposed regulations for cleaning hulls and associated niche areas do not meet technology-based requirements in VIDA and will result in unacceptable discharges of copper and zinc

IV.A. General Comments

The proposed regulation allows for (1) the discharge of high concentrations and volumes of copper- and zinc-contaminated effluent directly to surface waters during hull husbandry activities, (2) in-water hull cleaning without any effluent capture, and (3) the use of IWCC systems without any performance standards. As stated above, the proposed regulation related to IWCC system discharges exceed the U.S. EPA's authority under VIDA. However, we provide these comments – in the alternative as related to IWCC system discharges – to demonstrate that the proposed regulations fail to protect water quality and satisfy the technology-based standards under VIDA.

Since 2012, the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay Regional Water Board) has conducted an IWCC testing program to determine the magnitude of these unmanaged discharges. Based on the sampling program, we have determined that the discharges contain many thousands of gallons of wastewater with concentrations of up to 34,000 µg/L total copper and 29,000 µg/L total zinc[1].

In addition, the San Francisco Bay Regional Water Board has tested numerous practicable IWCC systems to determine their efficacy and determined that these systems can reduce discharge concentrations to as low as 2 µg/L total copper and 41 µg/L total zinc.

Based on these studies, the San Francisco Bay Regional Water Board has required the use of IWCC systems for hull husbandry since 2013 through a required best management program and is in the process of developing regional National Pollutant Discharge Elimination System permits for these systems.

Compliant IWCC systems are both economically achievable and technologically available. Specifically, the system requirements presented below rely on diver or remote-control operated scrubbing machines that were in use prior to California's capture and filtration best management practice requirements. The hosing, pumps, and filters are all standard and widely available for purchase or rental nationwide at liquid management vendors. The filters can be reused a number of times to clean multiple vessels and the system can easily be mounted to a barge or boat and moved from vessel to vessel. The U.S. EPA's proposed regulation itself acknowledges that of any

[1] A tabular data summary and the laboratory analytic reports for copper and zinc concentrations in water and process water samples collected during the fifteen IWCC studies referenced in this comment letter are available upon request from the Water Board staff contact person listed at the end of this letter.

challenges that may exist regarding the use of IWCC systems, “the lack of [IWCC] technologies themselves” is not among them. (85 Fed. Reg. 67869.)

Ultimately, the U.S. EPA should prohibit in-water cleaning discharges where an IWCC system is not used, except potentially in the case of preventative cleaning (see Item 4 below), and require the use of drydock wherever possible and IWCC systems where cleaning in drydock is not possible. Should the U.S. EPA choose to continue to include provisions related to IWCC system discharges despite our comments related to the scope of authority provided by VIDA, the results of our IWCC system studies should serve as the basis for meeting the technology-based standards applicable to regulations promulgated under VIDA, discussed above. To not do so will result in the ongoing discharge of toxic wastewater to the waters of the Unites States and California.

IV.B. Specific Comments on Hulls and Associated Niche Areas

Item 1: Section 139.22(c)(4)(i) of the proposed regulation prohibits the in-water cleaning of biofouling that exceeds a fouling rating of FR-20 unless “(i) *The biofouling is local in origin and cleaning does not result in a plume or cloud of Paint.”* (85 Fed. Reg. 67889.) The “local in origin” standard is not measurable or enforceable and will result in the sanctioned discharge of invasive species. Additionally, a standard for paint discharge that simply requires that no plume or cloud of paint result from the cleaning neither satisfies the technology-based standards applicable to VIDA nor protects water quality. By the time a plume or cloud of paint is visible, the biocide, copper, and zinc concentrations discharged will far exceed any water quality objectives established to protect beneficial uses of waters of the U.S. and California. We have presented below in the Recommended IWCC System section of this comment letter the extremely high concentrations of copper and zinc that are discharged during cleaning without a compliant capture system. The discharge concentrations of total copper are as high as 34,000 µg/L or about 9,000 times greater than the water quality objective. The discharge concentrations of total zinc are as high as 29,000 µg/L or about 300 times greater than the water quality objective.

Action requested: Prohibit in-water hull cleaning of biofouling without the use of an IWCC system, and do not allow for exceptions that include a “local in origin” standard or allow paint to be discharged at a level that is not protective of state water quality standards. The prohibition on in-water hull cleaning of biofouling could be modified to allow for in-water hull cleaning of biofouling with a fouling rating below FR-20 without an IWCC system if peer reviewed testing demonstrates that preventative cleaning does not result in the discharge of high concentrations and large volumes of copper and zinc. Remove these conditions from the proposed regulation and accompanying discussion text at 85 Fed. Reg. 67868 and 67869, as quoted in Items 5 and 8.

Item 2: Section 139.22(c)(5) of the proposed regulation states, “*The discharge of any wastes filtered or otherwise removed from any IWCC system is prohibited.”* (85 Fed. Reg. 67889.) This statement could be interpreted to preclude the discharge of treated

effluent when employing a permitted IWCC system. We do not believe this was the intent of the statement.

Action requested: This statement should specify that filtered, biocide-free, and invasive species-free effluent that meets water quality objectives or technology based effluent limits can be discharged, although the solids trapped in the filters should be disposed of as a waste at an appropriate facility.

Item 3: The proposed regulation under "Cleaning" states "*Whenever possible, EPA suggests that drydock cleaning is the preferred [best management practice] to in-water hull and niche cleaning."* (85 Fed .Reg. 67867.)

Action requested: We recommend the following language be inserted to replace the italicized text, along with appropriate operative text in the rule itself: "Hull cleaning in drydock while implementing careful collection and appropriate disposal of all liquids and solid generated during the cleaning is the best available technology for vessel cleaning and should be utilized in lieu of IWCC systems whenever possible."

Item 4: That same section states "*Additionally, preventative cleaning has been shown to effectively reduce biofouling without significantly increasing biocide loading into the aquatic environment (Tribou and Swain, 2017)."* (85 Fed.Reg. 67868.) This test plate study is not sufficient evidence to support recommending preventative cleaning without aggressive capture of biocides.

Action requested: We recommend the following language be inserted to replace the italicized text, along with appropriate operative text in the rule itself: "IWCC systems with monitoring that demonstrate that the effluent meets water quality objectives or technology based effluent limitations must be employed when conducting preventative cleaning. This requirement may be modified if peer reviewed testing demonstrates that preventative cleaning does not result in the discharge of high concentrations and large volumes of copper and zinc."

Item 5: The proposed regulation states "*EPA is also proposing to prohibit in-water cleaning of biofouling that exceeds a fouling rating of FR-20, except in the following two circumstances: 1) when the fouling is local in origin and 2) cleaning does not result in the substantial removal of a biocidal antifouling coating, as indicated by a plume or cloud of paint."* (85 Fed. Reg. 67868.)

Action requested: See action requested on Item 1.

Item 6: The proposed regulation states "*Also, understanding that IWCC systems may not be available in many ports, EPA recommends, but does not propose to require, the use of IWCC systems for removal of local macrofouling."* (85 Fed.Reg. 67868.) It is extremely difficult to determine whether fouling is local in origin and extremely rare for fouling to be entirely local. Allowing in-water cleaning without the use of an IWCC system effectively gives permission to discharge both invasive species and biocides to waters of the U.S. at concentrations that will degrade water quality. The concentrations

will be as high as 34,000 µg/L total copper and 29,000 µg/L total zinc, which has been determined through the San Francisco Bay Regional Water Board's IWCC testing program that is discussed in more detail in the Recommended IWCC Standards section below.

Action requested: We recommend that the italicized text above be removed from the background section of the regulation.

Item 7: The proposed regulation states "*As such, EPA expects that regular cleaning of biofouling consisting of FR-20 or below, in combination with the potential for controlled cleaning of biofouling exceeding FR-20 through IWCC devices, represents best available technology economically achievable to control the release of ANS and biocides from vessel hulls and associated niche areas, with likely long term cost savings to the vessel industry."* (85 Fed.Reg. 67869.)

Action requested: See action requested on Item 1.

Item 8: The proposed regulation states "*The proposed rule would allow in-water cleaning of copper-based coatings in copper-impaired waters within the 365 days following application only in circumstances when an IWCC system consistent with the aforementioned specifications is used."* (85 Fed.Reg. 67869.)

Action requested: Include with this determination the performance standards presented in the Recommended IWCC Standards section below.

IV.C. Recommended IWCC Standards

The San Francisco Bay Regional Water Board has overseen IWCC system testing since 2012 for a total of 15 tests on various IWCC systems. The studies included the collection of hundreds of samples of influent and effluent from the IWCC systems. Using these data, we determined the copper and zinc effluent concentrations from a practicable and well-operated IWCC system. The influent concentrations represent the copper and zinc concentrations that are discharged to surface water when an IWCC system is not implemented, or when a system is used without any standards. IWCC systems that meet these standards are feasible, as discussed above, and satisfy the technology-based standards applicable to the U.S. EPA's proposed regulation pursuant to VIDA.

Influent Concentrations – raw untreated industrial wastewater

The influent concentrations (or what would be discharged to the environment without filtration) are as follows:

a) Total Copper: range of 25 – 34,000 µg/L with an arithmetic mean of 5,035 µg/L, and,
b) Total Zinc: range of 41 – 29,000 µg/L with an arithmetic mean of 5,224 µg/L.

Please note that the most stringent water quality objective for total copper is 3.7 µg/L and for total zinc is 86 µg/L.

Effluent Concentrations – treated industrial wastewater

The effluent concentrations (treated wastewater) from practicable and well-operated IWCC systems are as follows:

a) Total Copper: range of 2 – 702 µg/L with an arithmetic mean of 113 µg/L, and
b) Total Zinc: range of 21 – 1744 µg/L with an arithmetic mean of 389 µg/L.

System Requirements

Since 2013, the San Francisco Bay Regional Water Board has required the implementation of hull husbandry using an IWCC system through a required best management practice process. The system requirement consists of a containment and collection system capable of collecting all process water generated during the in-water hull cleaning and directing it to the treatment system. Again, these systems are technologically available and economically achievable. The best management practice recommends a system that relies on "off the shelf" components easily available for purchase or rental and allows for innovation and the use of a different IWCC system that can achieve the same or greater pollutant capture and removal.

Specifically, the recommended system employs:

- A scrubber unit with rotating plastic brushes to remove attached biological material from a vessel's hull. The scrubber unit is held against the hull with approximately 1,000-pounds of pressure per square foot by a self-contained propeller and an approximately 400-gallon-per-minute (gpm) pump on a pier or barge;
- A suction line attached to the discharge outlet from the scrubber unit collects and directs the process water to the pier or barge, where it is filtered by a 100-micron stainless steel mesh screen, followed by two 10-micron filter cartridges in parallel, followed by four 5-micron filter cartridges in parallel, and lastly conveyed through four pressure vessels arranged in parallel, each containing 3,000 pounds of organo-clay;
- If necessary, additional pressure vessels can be used in series or in parallel to fully accommodate the flow rate and maximize pollutant removal; and
- The discharge point into the receiving water should be a minimum of 10-feet below the water surface. If large liquid storage containers are available, process water can be treated and discharged in batches.

Performance Criteria – System and Discharge Monitoring

The recommended monitoring includes:

- The suction pump flow should be monitored continuously and recorded hourly to ensure that a minimum of 350 gpm (400 gpm is optimal) of process water is recovered from the scrubber unit; and
- Treatment system influent and effluent samples should be collected daily and analyzed for total and dissolved copper and zinc. Sampling should begin three detention times (the treatment system volume divided by the flow rate) after commencing operations and continue daily until operations cease. After sampling the influent, effluent samples should be collected following one additional detention time.

Operational Triggers – Effluent Limitations

To ensure proper implementation of the IWCC system and to confirm that the system is removing pollutants, treated process water discharged into the receiving water should not exceed the total copper and total zinc concentrations that have been determined to be achievable based on the San Francisco Bay Regional Water Board's studies. If monitoring results exceed these triggers, the treatment system should be modified or augmented to the extent possible to improve its performance until the operational triggers/effluent limitations are achieved.

For copper or zinc impaired water bodies we recommend using the water body-specific water quality objectives. Since these objectives vary between water bodies, we have provided objectives that represent a likely requirement, but may vary slightly. For non-impaired water bodies, we recommend using the arithmetic mean concentrations for total copper and zinc presented above. These concentrations represent technology-based effluent limitations that have been determined to be achievable through the San Francisco Bay Regional Water Board's studies.

The operational triggers/effluent limitations that should be achieved are shown in Tables 2 and 3 below.

Table 2: Copper or zinc impaired water body

Constituent	**Operational Trigger/Effluent Limitation**
Total copper	3.7 µg/L
Total zinc	86 µg/L

Table 3: Copper or zinc non-impaired water body

Constituent	**Operational Trigger/Effluent Limitation**
Total copper	100 µg/L
Total zinc	400 µg/L

We recommend the proposed regulation be revised to require hull cleaning in drydock wherever possible, and to prohibit in-water cleaning without the use of an IWCC system unless and until peer-reviewed studies can be produced that demonstrate the protectiveness and effectiveness of preventative cleaning. Moreover, discharges from IWCC systems should not be considered incidental to the normal operation of a vessel for the reasons discussed in Section I and should be regulable by the states. Should the U.S. EPA choose to continue with a proposed regulation that regulates discharges from IWCC systems despite this, it should revise its proposed regulation to require the use of IWCC systems that meet the standards just discussed. Compliant IWCC systems that meet these standards are technologically available, economically achievable, and are far more protective of state water quality than the standards in the proposed regulation. A proposed regulation that incorporates the changes requested above and requires the use of compliant IWCC systems would satisfy the technology-based requirements of VIDA and protect water quality.

V. Conclusion

In summary, the proposed regulation would exceed the U.S. EPA's authority by proposing to regulate IWCC system discharges as an incidental discharge. Furthermore, the proposed regulation is not protective of water quality and fails to meet the technology-based standards required by VIDA.

We look forward to continuing to work with the U.S. EPA to ensure discharges from vessels and water quality protects human health and the environment. If you have any questions regarding this comment letter, please contact Katherine Walsh at (916) 445-2317 or Katherine.Walsh@waterboards.ca.gov.

Sincerely,

For

Karen Mogus
Deputy Director
Division of Water Quality

cc via email:

Mr. Michael Montgomery, Michael.Montgomery@waterboards.ca.gov
Mr. David Elias, David.Elias@waterboards.ca.gov
Mr. Ryan Mallory-Jones, Ryan.Mallory-Jones@waterboards.ca.gov
Ms. Rebecca Fitzgerald, Rebecca.Fitzgerald@waterboards.ca.gov
Ms. Diana Messina, Diana.Messina@waterboards.ca.gov
Ms. Katherine Walsh, Katherine.Walsh@waterboards.ca.gov

STATE OF CALIFORNIA
GAVIN NEWSOM, *Governor*

CALIFORNIA STATE LANDS COMMISSION

ELENI KOUNALAKIS, *Lieutenant Governor*
BETTY T. YEE, *Controller*
KEELY BOSLER, *Director of Finance*

Established in 1938

EXECUTIVE OFFICE
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* **(916) 574-1810**
California Relay Service TDD Phone 1-800-735-2929
Voice Phone 1-800-735-2922

November 25, 2020

Mr. Jack Faulk
Oceans and Coastal Management
Branch (4504T)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460
faulk.jack@epa.gov

Subject: Vessel Incidental Discharge National Standards of Performance [Docket No. EPA-HQ-OW-2019-0482]

Dear Mr. Faulk:

Please accept these comments to the U.S. Environmental Protection Agency (USEPA) in response to the proposed Vessel Incidental Discharge National Standards of Performance (Docket No. EPA-HQ-OW-2019-0482) pursuant to 33 U.S.C. section 1322.

The California State Lands Commission (Commission) provides the people of California with effective stewardship of the lands, waterways, and resources entrusted to its care through preservation, restoration, enhancement, responsible economic development, and the promotion of public access. The Commission recognizes that successful partnerships are foundational to serving the people of California and therefore strives to work proactively with local, state, and federal agency partners to solve complex natural resource and land management challenges.

Invasive species threaten California's environment, economy, and human health. California is the fifth largest economy in the world. California's ports, including Long Beach, Los Angeles, and Oakland, three of the busiest ports in the nation, are ground zero for invasive species introductions into coastal waters. The San Francisco Bay is one of the most heavily invaded estuaries in the world. Approximately 80 percent of the over 250 invasive species in California coastal waters are the result of shipping activity at California ports. California, as with other states, must be able to implement programs to safeguard its strong economy and coastal environment.

USEPA's proposed Vessel Incidental Discharge National Standards of Performance are not sufficiently stringent to protect California waters from the threat of species introductions. The Commission has seven major concerns regarding the proposed

national standards of performance for marine pollution control devices for discharges incidental to the normal operation of a vessel. Those concerns are:

1) USEPA violated the Vessel Incidental Discharge Act (VIDA) requirement to consult with interested governors

2) The 30-day public comment period is inadequate to assess and comment on the proposed regulations and associated impacts to States

3) USEPA is violating VIDA by attempting to regulate biofouling as an incidental discharge

4) USEPA is violating VIDA by attempting to regulate vessel in-water cleaning and capture operations as an incidental discharge

5) USEPA failed to perform an adequate analysis of Best Available Technology (BAT) for ballast water management systems and therefore USEPA's proposed ballast water discharge standards are arbitrary and capricious

6) The proposed regulations fail to be as stringent as the 2013 Vessel General Permit and weaken protections against aquatic nuisance species introductions from ballast water discharge

7) USEPA failed to consider best management practices that would enhance the effectiveness of BAT for ballast water discharges

8) Portions of the supplemental materials for the proposed regulations are inaccurate and misleading

Each of these areas of concern is discussed in more detail below.

1) <u>USEPA violated the VIDA requirement to consult with interested governors</u>

VIDA requires USEPA to promulgate federal standards of performance for marine pollution control devices "in *consultation* with interested Governors."[1] Additionally, USEPA, "in promulgating a standard of performance. . . shall develop the standard of performance-- (aa) in consultation with interested Governors."[2] VIDA does not define *consultation*. In the absence of a provided definition, there is a presumption that terms used should be given their ordinary or plain meanings. This "'strong presumption' that the plain language of the statute expresses congressional intent is rebutted only in 'rare and exceptional circumstances' when a contrary legislative intent is clearly expressed."[3] In VIDA, there is no contrary legislative intent to construing *consult* with its plain, ordinary meaning. Merriam-Webster defines *consultation* to mean "the act of consulting

[1] 33 U.S.C. § 1322 (p)(4)(A)(i), italics added.
[2] 33 U.S.C. § 1322 (p)(4)(A)(iii)(I).
[3] *Ardestani v. I.N.S.* (1991) 502 U.S. 129, 135-36.

or conferring," with *consulting* defined as: 1. "to have regard to; consider" and 2. "to ask the advice or opinion of."[4] Furthermore, VIDA required USEPA to "develop a process for soliciting input from interested Governors . . . to allow interested Governors to inform the development of standards of performance. . . ."[5] Clearly then, the requirement to consult was meant to allow Governors to influence the development of the standards of performance.

On July 10 and 18, 2019, USEPA scheduled meetings with states' Governors or their delegates. These meetings were purported to comply with USEPA's obligation to consult with interested Governors. As USEPA put it, USEPA used the meetings "to provide an overview of the VIDA, discuss state authorities under the VIDA, and solicit input on a process that would meet both the statutory requirements and state needs."[6] During the meetings, USEPA merely recited the requirements and provisions of VIDA to the participants and asked participants what input they may have. USEPA was unwilling or unable to answer many questions about its contemplated approaches for regulating incidental discharges and, instead, referred the States to the VGP.

These nominal efforts failed to comply with VIDA's requirement for consultation with interested Governors. In order for USEPA to "consider" or "have regard to" the interested Governors' input, USEPA would have needed to discuss its policy goals and contemplated regulatory approaches. However, having failed to hold these discussions with interested Governors, USEPA provided no meaningful opportunity for interested Governors to participate and comment. Without this level of discussion, USEPA was unable to "develop the standard of performance . . . in consultation with interested governors."

Rather than recite the VIDA provisions to interested Governors and states, USEPA should have provided a good faith opportunity to provide input on the development of performance standards. Whereas VIDA required USEPA to afford interested Governors with an opportunity to participate in the development of the performance standards, interested Governors have only the same opportunity as the general public: a 30-day comment period. Following the July 10th and 18th meetings, the States of California, Washington, Oregon, and Hawaii sent letters to USEPA, detailing their concerns that USEPA failed to adequately consult on the development of performance standards.[7] The States also identified some of the important subjects that they felt consultation was needed on. After the July 10 and July 18, 2019 meetings, USEPA provided no draft language for review and comment. Subsequently, USEPA "held follow-up calls . . . with representatives from the West Coast states on January 15, 2020, to address comments

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[4] "consult." Merriam-Webster.com. 2020. https://www.merriam-webster.com (17 November 2020).
[5] 33 U.S.C. § 1322 (p)(4)(A)(iii)(II).
[6] U.S. Environmental Protection Agency. "Vessel Incidental Discharge Act (VIDA) Stakeholder Engagement Opportunities." 17 November 2020, https://www.epa.gov/vessels-marinas-and-ports/vessel-incidental-discharge-act-vida-stakeholder-engagement-opportunities#outreach.
[7] These letters, dated September 5, 2019 and September 10, 2019, are attached.

submitted to EPA."[8] However, in the follow-up calls, USEPA staff was willing only to listen to State comments, not engage in meaningful discussion and consultation.

The failure to consult with interested Governors is apparent in the proposed regulations. The States remain confused by USEPA's interpretation of the scope of the regulations and concerned that the proposed standards will fail to protect the States' waters. For example, USEPA has uniformly declined to explain its basis for departing from past interpretations that biofouling was not a discharge incidental and now concluding that biofouling is an incidental discharge.[9] Additionally, the proposed regulations reveal USEPA's intent to abandon existing environmental protections. For example, under current law, USEPA mandates the use of protective measures to reduce water quality impacts associated with cathodic protection.[10] In the proposed regulations, none of these requirements (or amendments of them) appear.[11] Under current law, USEPA requires vessels to minimize or avoid ballast water uptake near sewage outfalls or in darkness.[12] To the shock of the States, USEPA now proposes to jettison these simple, effective protections.[13]

The States recognize that USEPA's duty to consult was not a duty to accommodate the States' interests. Admittedly, experts from the States and USEPA could endlessly dispute the minute technical details. However, these changes comprise a radical shift in environmental regulation of incidental discharges, not minute technical details. USEPA's refusal to consult deprived the States of any meaningful opportunity to participate in these significant policy changes. Consequently, the States are now commenting on USEPA's grossly under protective standards and violations of VIDA, whereas these fundamental differences should have been resolved through consultation. To avoid violating VIDA's requirement to consult, USEPA must withdraw the proposed regulations and engage interested Governors in good faith consultation.

2) The 30-day public comment period is inadequate to assess and comment on the proposed regulations and associated impacts to States

The purpose of a comment period under section 553(c) of title 5, U.S.C., is to "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments. . . ." The 30-day comment period offered by USEPA to review this proposed rule is totally inadequate for the States to understand this important, complex, and technical rule and meaningfully participate as intended by

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[8] U.S. Environmental Protection Agency. "Vessel Incidental Discharge Act (VIDA) Stakeholder Engagement Opportunities."17 November 2020, https://www.epa.gov/vessels-marinas-and-ports/vessel-incidental-discharge-act-vida-stakeholder-engagement-opportunities#outreach.
[9] See biofouling discussion beginning on page 5.
[10] U.S. Environmental Protection Agency, "Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels" (hereafter "VGP"), Section 2.2.7 Cathodic Protection, pg. 46 (2013).
[11] 85 Fed. Reg. 67887 (section 139.13 Cathodic Protection) (Oct. 26, 2020).
[12] VGP, Section 2.2.3.3 Mandatory Ballast Water Management Practices: Management measures required of all vessel owner/operators, pgs. 27-28 (2013).
[13] 85 Fed. Reg. 67835 (Oct. 26, 2020).

the statute. The proposed rule involves multiple regulatory agencies in each State and requires consultation with experts to determine the appropriate technology standards. The fact that USEPA was not able to publish the proposed rule until October 26, 2020, when the requirement for USEPA to promulgate these standards was enacted into law on December 4, 2018,[14] indicates how complex the rule is and that a reasonable comment period is needed for the States.

Further, the proposed rulemaking includes 593 supporting documents listed in the docket. A 90-day comment period is what should have been allowed to enable the States to adequately assess and comment on the impacts the proposed regulations will have on their state's environment, economy, and the health of their people. Due to the scope and complexity of the proposed regulations, a 30-day public comment period has effectively deprived the public and the States from having a meaningful opportunity to participate in the rulemaking process.

3) USEPA is violating VIDA by attempting to regulate biofouling as an incidental discharge

Introduction

VIDA preempts the states from regulating discharges incidental to the normal operation of vessels.[15] Congress added VIDA to an existing statute that defines *discharge incidental to the normal operation of a vessel*. As discussed below, biofouling does not fit within the statutory definition. Nonetheless, USEPA identifies biofouling as a *discharge incidental to the normal operation of a vessel* in its proposed regulations, which would preempt states from regulating vessel biofouling. The Commission, as a world leader in biofouling regulation, opposes this construction because it would expand the statutory definition and preemptive effect far beyond Congressional intent.

Background

Vessel biofouling is the accumulation of aquatic organisms on vessel hulls or appendages. Fouling organisms can include microorganisms, algae, or small animals, such as barnacles and mussels. If left unmanaged, vessel biofouling can cause structural damage to vessels and decrease vessel efficiency due to increased hydrodynamic drag. Vessel biofouling also results in the transport of aquatic organisms to new environments, where they can spawn or detach and disperse. Maintaining vessel integrity and efficiency incentivizes vessel owners and operators to manage biofouling on some underwater portions of the vessels, but they do not have as strong of an interest in preventing the attachment of aquatic organisms on underwater crevices, piping intakes, and other structures that do not affect fuel efficiency, but which also accumulate biofouling. Many governments, including California, seek to reduce the risk of vessels transporting aquatic nuisance species (ANS) to their territories because

[14] 33 U.S.C. § 1322(p)(4)(A)(i).
[15] 33 U.S.C. § 1322(p)(9)(A)(i).

invasive species harm the environment, ecosystems, economy, and public health. Vessel biofouling is believed to be responsible for up to 60 percent of the established ANS along the California coast, including bays, harbors, and estuaries (Ruiz et al. 2011).

Vessel owners and operators can manage biofouling by utilizing hull coatings or actively cleaning their vessels. Most hull coatings contain biocides such as copper and zinc to create an undesirable surface for organisms to attach; others are designed to impair the adhesive traits of fouling organisms, preventing them from attaching to vessel hulls. While not the subject of this comment letter, these hull coatings can release pollutants such as heavy metals, which is a discharge incidental to the normal operation of a vessel, as covered in section 139.22(b) of the proposed regulations.[16] Neither coating type works perfectly, especially as it ages, so vessels generally have some degree of biofouling.

Active cleaning of vessels is necessary when biofouling grows and covers more surface area of a vessel. Cleaning and maintaining the hull is referred to as hull husbandry or underwater ship husbandry. Cleaning tools include brushes, high pressure water jets, or similar instruments to forcibly remove biofouling. While brushing or scraping fouling organisms from a vessel, the owners or operators incidentally remove some of the coating material. The removed organisms and coating material can cause negative impacts, especially to the aquatic environment.

The ideal time to clean vessels is during "dry dock," where the vessel is removed from the water. During dry dock, any organisms or materials removed from the hull fall into a controlled environment and are contained. However, dry docking is expensive and inconvenient, so vessel owners and operators generally choose to dry dock their vessels only once every five years to align with federal and international safety standards (e.g., International Maritime Organization's Safety of Life at Seas Convention). Between scheduled dry dockings, vessel owners and operators may need to conduct in-water cleaning. During in-water cleaning, some or all removed materials enter the open water, depending on the level of containment. These underwater ship husbandry discharges cause environmental impacts and are the subject of section 139.22(c) of the proposed regulations.[17]

States can continue to regulate biofouling without frustrating the federal government's efforts to regulate incidental discharges. Although the states would be preempted from regulating in-water cleaning or establishing hull coating requirements under the new regulations, the states can impose limits on how much biofouling a vessel can have while present in their territories. In other words, VIDA does not prevent the states from establishing thresholds for how much wetted surface area on a vessel may be covered in biofouling and imposing remedies for exceeding the thresholds, including penalties or orders to remove the vessel from state territory or conduct in-water cleaning in

[16] 85 Fed. Reg. 67889 (Oct. 26, 2020).
[17] 85 Fed. Reg. 67889 (Oct. 26, 2020).

accordance with USEPA's regulations. While the states could not establish requirements on how to conduct in-water cleaning and any state remedies would need to avoid frustrating USEPA's incidental discharge regulations, a role remains for states to limit biofouling in order to prevent the introduction of ANS into state waters.

California's Interest in Regulating Vessel Biofouling

California's coastal and estuarine environments are particularly vulnerable to biofouling-mediated introductions of ANS. Up to 60 percent of the currently established ANS in the State's coastal and estuarine waters were first introduced via biofouling (Ruiz et al., 2011). Biofouling presents an ongoing risk for introducing these species. Biofouling has been a historical driver of ANS introductions over centuries, and it continues to be actively responsible for the transportation of ANS into California waters.

Two separate underwater vessel surveys have demonstrated the presence of ANS within the biofouling on vessels arriving at California ports. Davidson et al. (2013) surveyed 23 commercial merchant or passenger vessels in California ports and identified 124 different invertebrate or algae species. Twenty-four of these species were nonindigenous to the U.S. Pacific coast and 14 were not yet established in California. Davidson et al. (2014) followed up with surveys of another nine commercial merchant or passenger vessels in California ports and identified 99 different invertebrate or algae species or groups of species. Nearly one-third of those that were identified down to species level were categorized as nonindigenous to California or of unknown origin, including two that were not yet established in California. These two studies establish that vessels arriving at California ports are transporting ANS into California waters.

ANS typically associated with vessel biofouling communities are now becoming established in California's open coast environments (i.e., away from ports). Through surveys of open coast sites, Zabin et al. (2018) found a common biofouling species, the bryozoan *Watersipora sp.*, at multiple sites in central and northern California, sometimes in high abundances. Proximity to harbors was correlated with abundance of *Watersipora sp.* and other ANS.

The likelihood of successful ANS introductions depends on many factors, including the number and frequency of vessel arrivals, the geographic locations in which these vessels trade, and the environmental similarities between where the species originated and the receiving water. These factors vary greatly between states and even ports within a state and require regional or location-specific protections to reduce the likelihood of successful ANS introductions. A biofouling standard that is protective of the Great Lakes may not be the most appropriate for California, and vice versa. A one-size-fits-all approach may protect certain waterbodies at the expense of others. For example, some States have copper-impaired waters that may favor non-native species; some states have vulnerable coral reefs; some states have freshwater ports whereas most have marine ports. California's unique coastal and estuarine environments and its strong coastal economy are dependent on effective natural resource management that is designed to address the specific environmental threats to California. For these

reasons, the States can more effectively regulate biofouling than the federal government can.

USEPA Improperly Treats Biofouling as an Incidental Discharge

VIDA has the severe effect of preempting the States from regulating "discharge[s] incidental to the normal operation of a vessel."[18] Consequently, it is imperative that USEPA accurately construct this defined term to avoid preempting state authority that Congress intended to remain undisturbed. Unfortunately, in the proposed regulations, USEPA has improperly interpreted biofouling as a "discharge incidental to the normal operation of a vessel." As stated in the rulemaking materials:

> EPA understands the statutory definition of "discharge incidental to the normal operation of a vessel" (incidental discharge) at 33 U.S.C.1322(a)(12) to include any discharge of biofouling organisms from vessel equipment and systems. Consistent with the VGP discharges of biofouling organisms from vessel equipment and systems while the vessel is immersed or exposed to the aquatic environment are incidental to the normal operation of a vessel. Such discharges during normal operation of the vessel include, but are not limited to, those from maintenance and cleaning activities of hulls, niche areas, and associated coatings.[19]

USEPA identifies in-water cleaning and maintenance discharges of biofouling to be incidental discharges. The Commission does not challenge USEPA's conclusion that discharges of biofouling organisms during in-water cleaning are incidental discharges. Such discharges qualify as "a discharge in connection with the testing, maintenance, and repair of a [protective, preservative, or absorptive application to the hull of the vessel]." The Commission's concern is that USEPA impliedly concludes that the mere presence of biofouling, in the absence of in-water cleaning or maintenance, is also an incidental discharge.

The proposed regulations include a requirement to "minimize" the transportation of biofouling organisms and to develop and follow a biofouling management plan.[20] USEPA explains that the goal of the biofouling management plan is to "prevent macrofouling, thereby minimizing the potential for the introduction and spread of [aquatic nuisance species] ANS."[21] In some of the proposed regulations, USEPA would require minimization of biofouling for the purpose of avoiding introductions of ANS. For example, "EPA is proposing that vessel hulls and niche areas must be cleaned regularly to minimize biofouling" in proposed section 139.22(c).

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[18] 33 U.S.C. § 1322(p)(9)(A)(i).
[19] 85 Fed. Reg. 67830 (Oct. 26, 2020).
[20] 85 Fed. Reg. 67889 (section 139.22(c)(1)) (Oct. 26, 2020); 85 Fed. Reg. 67884 (section 139.5) (Oct. 26, 2020).
[21] 85 Fed. Reg. 67830 (Oct. 26, 2020).

USEPA also proposes to regulate biofouling in section 139.13 Cathodic Protection. The section title is misleading because it is written to regulate biofouling, not discharges associated with cathodic protection: "[s]paces between any flush-fit anode and backing must be filled to remove potential hotspots for biofouling organisms."[22] Similarly, the proposed regulation of seawater piping in section 139.28 is focused entirely on preventing biofouling.[23] However, in the VGP, the corresponding section (2.2.20) was focused on minimizing the "amount of biofouling *chemicals* needed to keep fouling under control."[24] Through these provisions, USEPA is effectively treating the mere presence of biofouling as an incidental discharge.

Biofouling is Not a *Discharge Incidental to the Normal Operation of a Vessel*, as Defined in VIDA

Congress did not define *discharge incidental to the normal operation of a vessel* when it adopted VIDA. Rather, Congress added VIDA as a new subparagraph to an existing statute that already included a definition of *discharge incidental to the normal operation of a vessel*.[25] Specifically, the term:

> (A) means a discharge, including—
>
> (i) graywater, bilge water, cooling water, weather deck runoff, ballast water, oil water separator effluent, and any other pollutant discharge from the operation of a marine propulsion system, shipboard maneuvering system, crew habitability system, or installed major equipment, such as an aircraft carrier elevator or a catapult, or from a protective, preservative, or absorptive application to the hull of the vessel; and
>
> (ii) a discharge in connection with the testing, maintenance, and repair of a system described in clause (i) whenever the vessel is waterborne; and
>
> (B) does not include—
>
> (i) a discharge of rubbish, trash, garbage, or other such material discharged overboard;
>
> (ii) an air emission resulting from the operation of a vessel propulsion system, motor driven equipment, or incinerator; or

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[22] 85 Fed. Reg. 67887 (section 139.13) (Oct. 26, 2020). Note that in the VGP, the corresponding provision (2.2.7) included requirements to prevent discharges of metals from sacrificial anodes. USEPA has not included any BMPs to address these discharges. It is unclear how the abandonment of the BMPs complies with 33 U.S.C. section 1322(p)(4)(B)(iii).
[23] 85 Fed. Reg. 67890 (Oct. 26, 2020).
[24] VGP, Section 2.2.20 Seawater Piping Biofouling Prevention, pg. 52 (2013), italics added.
[25] 33 U.S.C. § 1322.

(iii) a discharge that is not covered by part 122.3 of title 40, Code of Federal Regulations (as in effect on February 10, 1996).[26]

Note that the definition includes two subparagraphs: one specifying what it includes (Subparagraph (A)) and one specifying what it does not include (Subparagraph (B)).

Biofouling does not fit within the subparagraph specifying what is included in the definition of an incidental discharge. Most biofouling organisms are present on the hull of a vessel, so if Congress intended to include biofouling it would only be logical to include biofouling on the hull of a vessel. However, under Subparagraph (A), the only language that could potentially reflect Congressional intent to include biofouling on the hull is "pollutant discharge . . . from a protective, preservative, or absorptive application to the hull of the vessel." However, this language refers to a chemical discharge from the "application to the hull," rather than a discharge of organisms from the "hull" itself. Interpreting the language any differently would read the phrase "from a protective, preservative, or absorptive application to the" out of the statute. However, each word in a statute must be given meaning, pursuant to the rule against surplusage, under which courts strive to give meaning to every clause and word of a statute. If Congress intended the provision to apply to biofouling, it would have phrased the provision as "pollutant discharge (or release) from the hull of the vessel" or included other similar language.

Additionally, assuming Subparagraph (A) covered biofouling on the hull of a vessel, it would fail to cover biofouling comprehensively. Although most fouling occurs on vessel hulls, biofouling also occurs in niche areas such as sea chests, dry-dock support strips, and anchor chain lockers. While some of these niche areas could be considered to be part of a "marine propulsion system, shipboard maneuvering system . . . or installed major equipment" described in Subparagraph (A), others, including the dry-dock support strips, would not be considered to be encompassed by any of these systems or equipment. There is no rational basis for Congress to apply VIDA to biofouling on a vessel's hull and some but not all niche areas. The lack of explicit reference to the niche areas, and failure to include all niche areas within the named vessel systems, indicates that Congress did not intend for Subparagraph (A) to cover biofouling.

Notably, Subparagraph (A) contains the word *including*. Generally, *including* is illustrative, not exhaustive.[27] However, reading *including* in Subparagraph (A) as illustrative, not exhaustive, would render the subparagraph meaningless. As quoted above, the definition of *discharge incidental to the normal operation of a vessel* "means a discharge, including . . . ."[28] Under VIDA, *discharge* is itself a defined term, which "includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping."[29] Reading *discharge incidental to the normal operation of a*

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[26] 33 U.S.C. § 1322(a)(12).
[27] *See Samantar v. Yousuf* (2010) 560 U.S. 305, 317.
[28] 33 U.S.C. § 1322(a)(12).
[29] 33 U.S.C. § 1322(a)(9).

vessel to be illustrative would give it the same meaning as *discharge*. This reading would contravene the rule against surplusage.[30] In this case, reading *discharge incidental to the normal operation of a vessel* to be exhaustive, despite its use of the word *including*, is the only way to avoid rendering it meaningless. Additionally, Congress used "includes, but is not limited to" in the *discharge* definition to clarify that the definition of *discharge* is illustrative, not exhaustive. No such language appears in Subparagraph (A). Presumably, Congress was intentional with its diction. Had it intended for Subparagraph (A) to be illustrative, it would have used the same clarifying language.

Even if Congress intended for Subparagraph (A) to be illustrative, not exhaustive, interpretation of the subparagraph would be limited by the canon of construction *ejusdem generis*. Under *ejusdem generis*, "where general words follow specific words in a statutory enumeration, the general words are construed to embrace only objects similar in nature to those objects enumerated by the preceding specific words."[31] In Subparagraph (A), the relevant objects enumerated are pollutants discharged by *marine propulsion system, shipboard maneuvering system, crew habitability system, or installed major equipment, such as an aircraft carrier elevator or a catapult.* These enumerated objects are all types of pollutants that result from the operation of vessel equipment or infrastructure, not the accumulation of marine organisms. They may be discharged during in-water cleaning, but none of the systems or equipment listed actively pumps, pours, or otherwise discharges fouling organisms. Thus, biofouling would not fit within the class of objects identified in Subparagraph (A) even if it were read to be illustrative.

The provision specifying what is not included in the definition of a *discharge incidental to the normal operation of a vessel* also indicates that Congress did not intend for the definition to include biofouling. Subparagraph (B)(iii) provides that a *discharge incidental to the normal operation of a vessel* does not include "a discharge that is not covered by part 122.3 of title 40, Code of Federal Regulations (as in effect on February 10, 1996)."[32] EPA promulgated 122.3 in an unsuccessful attempt to exempt certain marine discharges from Clean Water Act sections 301(a) and 402.[33] Section 122.3 provided that "[t]he following discharges do not require [National Pollutant Discharge Elimination System (NPDES)] permits:"

> Any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, *or any other discharge incidental to the normal operation of a vessel*. This exclusion does not apply to

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[30] *See Duncan v. Walker* (2001) 533 U.S. 167, 174.
[31] *Official Committee of Unsecured Creditors of Cybergenics Corp. ex rel. Cybergenics Corp. v. Chinery* (3rd Cir. 2003) 330 F.3d 548, 562-63.
[32] 33 U.S.C. § 1322(a)(12)(B)(iii).
[33] Environmental groups joined by a number of states argued that the Clean Water Act did not authorize the exemptions of vessel discharges and therefore USEPA acted *ultra vires*. The Ninth Circuit agreed and invalidated 122.3 in *Northwest Environmental Advocates v. U.S. E.P.A.*, 537 F.3d 1006 (9th Cir. 2008).

> rubbish, trash, garbage, or such other materials discharged overboard; nor to other discharges when the vessel is operating in a capacity other than as a means of transportation. . . .[34]

After the Ninth Circuit invalidated the regulation, USEPA released the VGP to regulate such discharges. As the title indicates, the purpose of the VGP is to cover "discharges incidental to the normal operation of vessels." The VGP, in effect, represents a lengthy and detailed elaboration upon the meaning of a discharge incidental to the normal operation of vessels, of which Congress was aware when it adopted VIDA.

The VGP defines *discharge incidental to the normal operation of a vessel* as "those discharges that were excluded from the NPDES permitting program by operation of 40 CFR §122.3(a) as in effect on September 29, 2008."[35] It further clarifies that: "Discharges that are outside the scope of the former exclusion from NPDES permitting for discharges incidental to the normal operation of a vessel as set out in 40 CFR §122.3(a), as in effect on December 18, 2008, are ineligible for coverage under this permit."[36] Congress's intent to exclude the same types of discharges from VIDA as those excluded under section 122.3(a) indicates that VIDA and the VGP apply to many, if not all, the same discharges. Consistent with USEPA's statement that "Congress intended to preserve the existing VGP requirements as a regulatory floor," the scope of VIDA and the VGP are very similar.[37] In the section 1.2.2 ("Vessel Discharges Eligible for Coverage") of the VGP, USEPA identifies 27 types of incidental discharges. While the list includes seawater piping biofouling prevention and underwater hull husbandry, biofouling itself (or any other term it is known by) does not appear on this list. Instead of identifying biofouling as an incidental discharge in section 1.2.2 of the VGP, USEPA addressed biofouling as a best management practice to minimize the need for in-water cleaning, thereby reducing in-water cleaning discharges.[38] Thus, excluding biofouling from the scope of VIDA is consistent with the VGP.

Lastly, the U.S. Supreme Court has held that:

> "[i]n all pre-emption cases, and particularly in those in which Congress has 'legislated ... in a field which the States have traditionally occupied,' ... we 'start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.'"[39]

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[34] 40 C.F.R. § 122.3(a), italics added.
[35] VGP, Appendix A, Definitions, pg. 143 (2013).
[36] VGP, Section 1.2.3.1 Discharges Not Subject to Former NPDES Permit Exclusion and Vessel Discharges Generated from Vessels when they are Operated in a Capacity Other than as a Means of Transportation, pg. 10 (2013).
[37] 85 Fed. Reg. 67827 (Oct. 26, 2020).
[38] VGP, Section 2.2.23 Underwater Ship Husbandry and Hull Fouling Discharges, pgs. 53-54 (2013).
[39] *Wyeth v. Levine* (2009) 555 U.S. 555, 565, quoting *Medtronic, Inc. v. Lohr* (1996) 518 U.S. 470, 485.

In this instance, the States have traditionally occupied the field of environmental protection, including prevention of ANS introductions. Additionally, VIDA provides no "clear and manifest purpose of Congress" to preempt the States from regulating biofouling. First, as discussed above, the definition of *discharge incidental to the normal operation of a vessel* excludes biofouling. Second, it would not be clear and manifest for Congress to delegate authority to USEPA to interpret, through regulation, *discharge incidental to the normal operation of a vessel* to include biofouling. A clear and manifest purpose would be express identification of biofouling in the statutory definition. The absence of such a clear and manifest purpose triggers the presumption against preemption. Accordingly, the definition of *discharge incidental to the normal operation of a vessel* must be read narrowly to avoid expanding VIDA's preemptive effect beyond Congressional intent.

The "Stringency Provision" Does Not Provide a Basis for Regulating Biofouling as a *Discharge Incidental to the Normal Operation of a Vessel*

Citing subsection (p)(4)(B)(ii) (the Stringency Provision)[40] as justification, USEPA proposes to regulate the discharge of biofouling organisms:

> With one of the legislative purposes of the VIDA being to establish uniform national incidental discharge regulations that are as stringent as the VGP . . . EPA is proposing to include requirements for the discharge of biofouling organisms from vessel equipment and systems in this rulemaking.[41]

The Stringency Provision states:

> [T]he combination of any equipment or best management practice comprising a marine pollution control device shall not be less stringent than the following provisions of the Vessel General Permit:
>
> > (I) All requirements contained in parts 2.1 and 2.2 (relating to effluent limits and related requirements).[42]

According to USEPA, the Stringency Provision requires that biofouling must be covered in its regulations to the same extent that it is covered in the VGP.[43] This reading misconstrues the Stringency Provision to require incorporation. The Stringency Provision requires that "the combination of any equipment or best management practice [in the VIDA regulations] shall not be less stringent than [the VGP]." "Shall not be less stringent" does not mean incorporate. Instead, it means only that the marine pollution control devices in USEPA's regulations need to be at least as protective as those in the VGP. More simply put, if the VGP required best management practices (BMPs) A and

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[40] 33 U.S.C. § 1322(p)(4)(B)(ii).
[41] 85 Fed. Reg. 67830 (Oct. 26, 2020).
[42] 33 U.S.C. § 1322(p)(4)(B)(iii).
[43] 85 Fed. Reg. 67830 (Oct. 26, 2020).

B, USEPA's regulations can require BMPs X and Y as long as X and Y are as stringent as A and B. Thus, USEPA's requirement of a BMP in the VGP does not incorporate that BMP as an incidental discharge under VIDA.

In the VGP, USEPA included minimizing biofouling as a BMP for hull husbandry discharges, requiring regulated parties to "minimize the transport of attached living organisms."[44] However, USEPA misconstrues the Stringency Provision to require that biofouling, addressed as a BMP in the VGP for hull husbandry discharges, be incorporated in the regulations as an incidental discharge.[45] Read more carefully, the Stringency Provision requires only that the proposed hull husbandry regulations include marine pollution control devices that are collectively as stringent as hull husbandry requirements in the VGP. It is important to distinguish between regulating biofouling and identifying biofouling as an incidental discharge. The Stringency Provision provides no authority or requirement that biofouling be regulated as an incidental discharge in the proposed regulations.

Moreover, such a construction would create a conflict within VIDA. As discussed above, biofouling does not fit within the definition of incidental discharge under VIDA. Reading biofouling into VIDA through the stringency provision would effectively amend the incidental discharge definition. However, the definitions in legislation are meant to clarify the applicability and scope of the statute. Consequently, pursuant to the interpretive-direction canon, definitions and statements of applicability should be carefully followed.[46] To the extent that a conflict exists, the plain meaning of the definitions should prevail. In this case, even if the VIDA stringency provision would incorporate biofouling as an incidental discharge, biofouling nevertheless falls outside the VIDA incidental discharge definition. Thus, the most consistent VIDA construction would be to read the Stringency Provision as incorporating only discharges that fit within the VIDA definition of incidental discharge.

Biofouling is a Not a *Discharge*

Congress defined *discharge* in VIDA, stating that it "includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping."[47] The accumulation of organisms on a vessel does not fit within any of these examples. While the definition provides a non-exhaustive list, items not specifically listed include only those that are sufficiently similar to the examples provided.[48] The examples given in the definition of *discharge* indicate that Congress did not contemplate biofouling as a discharge. The attachment of organisms to the wetted surfaces is a natural process that does not require any human action to occur; "pumping," "pouring," "emptying," "dumping,"

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[44] VGP, Section 2.2.23 Underwater Ship Husbandry, pgs. 53-54.
[45] 85 Fed. Reg. 67830 (Oct. 26, 2020).
[46] Antonin Scalia and Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* (2012, Thompson/West; St. Paul, Mn.) at 225; *see also Babbitt v. Sweet Home Chapter of Communities for a Great* (1995) 515 U.S. 687, 697-98, fn. 10.
[47] 33 U.S.C. § 1322(a)(9).
[48] See discussion above regarding *ejusdem generis*.

"spilling," "leaking," and "emitting" all require a person to act. In order for a substance to spill or leak, someone must have taken action to bring aboard a fluid which has the potential to spill or to leak. To pump something requires human input, like operating a pump. Pumping does not occur spontaneously—neither does pouring, emptying, or dumping. Because each of these examples requires some human action to occur, the definition of *discharge* is limited to activities that require human action. Biofouling organisms act independently of vessel operators. A vessel operator does not have to take any action to recruit organisms; marine organisms will attach to any suitable surface that is submerged in water. The natural detachment of these organisms is also an independent process that does not require "pumping," "pouring," "emptying," "dumping," "spilling," "leaking," or "emitting" by the vessel owner or operator. Organisms may detach from the hull of a vessel by swimming or falling off, or they may spawn. This natural process of organism attachment and detachment, which occurs independently of any human action, is dissimilar from human-dependent actions encompassed by the word *discharge*. Thus, biofouling is not a *discharge*.

Congress Intended to Exclude Biofouling

In VIDA's legislative history, biofouling as a topic of discussion is conspicuously absent. Dissimilarly, ballast water appears as a frequent discussion topic. The 17-page Senate Report cited by USEPA in the rulemaking materials uses the word *ballast* 77 times. The Report details the risks of ballast water discharges, especially the impacts of ANS introductions. For example, the Report identifies the zebra mussel as a ballast-water introduced species that is causing significant damage in, and beyond, the Great Lakes.[49] It is clear from the Report that Congress was focused on addressing ANS introductions mediated through ballast water discharges.

However, the Report does not discuss the subject of biofouling at all. In fact, the words *biofouling* and *fouling* are not mentioned anywhere in the Report.[50] Ballast water and biofouling are the two primary vectors for vessel-mediated ANS introductions, with biofouling being responsible "for up to 60 percent of the established ANS along the California coast."[51] Consequently, if Congress had intended for VIDA to apply to biofouling, it would have afforded a significant amount of discussion of biofouling in the legislative history.[52] Legislative history presents an opportunity for Congress to identify problems and explain how it intends to address them in legislation. Interpreting VIDA to cover biofouling would require the reader to conclude that Congress: (1) identified biofouling as a discharge incidental to the normal operation of a vessel; (2) identified vessel biofouling as a significant threat to aquatic ecosystems; and (3) failed to discuss the significant threat at all in the explanation of bill's purposes. The only reasonable reconciliation of the legislative history and enacted law is that Congress did not view the

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[49] Errata to S. Rep. No. 115–89, pgs. 1-3 (2019)
[50] Errata to S. Rep. No. 115–89 (2019).
[51] Ruiz et al. 2011.
[52] Note that Congress defined *ballast water* in VIDA but provided no definition for *biofouling*. 33 U.S.C. § 1322(p)(1)(B)(i).

mere presence of biofouling as a *discharge incidental to the normal operation of a vessel*.

State Regulation of Biofouling Is in Harmony with VIDA

The States can continue to regulate biofouling without frustrating the federal government's efforts to regulate incidental discharges. Although the states would be preempted from regulating in-water cleaning or establishing hull coating requirements, the states can impose limits on how much biofouling a vessel can have while present in their territories. In other words, VIDA allows the states to establish thresholds for how much wetted surface area on a vessel may be covered in biofouling. The remedies for violating such a law could include a penalty, orders to remove the vessel from state territory, or orders to conduct in-water cleaning in accordance with USEPA's regulations. To be clear, the States could not establish requirements on how to conduct in-water cleaning, and any state remedies would need to avoid frustrating USEPA's incidental discharge regulations.

4) USEPA is violating VIDA by attempting to regulate vessel in-water cleaning and capture operations as an incidental discharge

Incorrect Application of the U.S. Navy Fouling Rating (FR) Scale

The proposed VIDA regulations incorporate the U.S. Navy FR scale to differentiate between levels of biofouling (from FR-0 to FR-100 by 10s) and to determine if in-water cleaning or in-water cleaning and capture is appropriate.[53] The FR scale was developed, and is used, to estimate the impact of drag on vessel operational efficiency and to determine when to employ cleaning operations to improve operational efficiency.[54] The primary metric used to differentiate between categories is the height of the biofouling above the vessel surface (in simple terms, more height equals more drag).[55] It is not a tool to determine the risk of introducing ANS, and it does not reflect the extent of biofouling communities across the underwater surface area of a vessel. For example, a vessel can have a score of FR-40, FR-50, FR-60, or FR-70 if it is fouled with barnacles, tubeworms, or both. These scores apply whether the biofouling is present at 5% or 100%; there is no increase in score even though the biofouling extent increases 20-fold. Similarly, a vessel with 100% cover of "soft" biofouling made up of invasive tunicates or sea squirts (a clear risk) would be scored as only FR-30 because these organisms have a low profile and are considered "soft" fouling, whereas a vessel with a single barnacle or a small patch of barnacles would score FR-40. For these reasons, the FR scale is inappropriate for proposed regulations that are aimed at

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[53] 85 Fed. Reg. 67889 (section 139.22(c)) (Oct. 26, 2020); see also Naval Ships' Technical Manual, Chapter 81, Waterborne Underwater Hull Cleaning of Navy Ships, Revision 5, S9086–CQ– STM–010, 2006).

[54] Naval Ships' Technical Manual, Chapter 81, Waterborne Underwater Hull Cleaning of Navy Ships, Revision 5, S9086–CQ– STM–010, pg. 81-1-1, 2006).

[55] Naval Ships' Technical Manual, Chapter 81, Waterborne Underwater Hull Cleaning of Navy Ships, Revision 5, S9086–CQ– STM–010, pg. 81-1-4, 2006).

reducing the risk of introducing ANS. The Commission suggests removing the FR scale from the proposed regulations.

The sole purpose for the use of the FR scale in the proposed regulations is to differentiate between microfouling (i.e., microscopic biofilm) and macrofouling (i.e., large, distinct organisms that are visible to the naked eye). In addition to removing the use of the FR scale, the Commission suggests defining and using the terms "microfouling" and "macrofouling." The Commission also suggests using a size threshold to differentiate between the two, specifically categorizing organisms > 0.5 cm as macrofouling (as indicated in Morrisey et al., 2015).

In-Water Cleaning Without Capture

The proposed regulations allow in-water cleaning *without* capture under two scenarios: 1) if the biofouling is microfouling only or 2) if macrofouling is local in origin.[56]

If biofouling is composed of microfouling only, the risk of introducing ANS is minimal, but the risk of releasing biocides from the antifouling coating remains. In-water cleaning without capture should not be allowed for vessels with biocide-based antifouling coatings unless independent data are available that demonstrate that the cleaning technology does not release biocides above an acceptable threshold. The proposed regulations fail to incorporate an acceptable threshold. The Commission suggests allowing in-water cleaning without capture on vessels with microfouling only if the antifouling coating is biocide-free or if independent data show that biocide release is below an appropriate threshold.

The proposed regulations do not include guidance on how to determine whether organisms are local in origin, rendering this requirement too vague to enforce. This option should be available only to vessels that remain in the same water body *and* do not leave their home port. That is the only way to be sure that the organisms are of local origin. Any active trading vessel with macrofouling will likely have existing biofouling from outside of the local area, and these should not be cleaned without capture. Biocide release is also a concern, especially when using more rigorous cleaning actions necessary for removing macrofouling. The Commission suggests removing this exception.

In-Water Cleaning and Capture

In-water cleaning and capture (IWCC) technologies generally include two connected units: 1) a cleaning unit with rotating brushes, high-pressure water jets, or other mechanisms that remove biofouling and particulate and dissolved biocides and 2) a treatment/filtration unit (i.e., reception facility) where these removed organisms or biocides are filtered from the waste stream prior to the water being returned to the local water body. The cleaning unit is operated underwater alongside the hull of the vessel,

[56] 85 Fed. Reg. 67889 (section 139.22(c)) (Oct. 26, 2020).

but the waste stream is then brought topside through an umbilical and associated pumps to the reception facility that is typically located on an adjacent barge or dock. In either case, these topside filtration and treatment systems are owned or operated by the in-water cleaning company that has been hired to manage the waste.

The supporting material to USEPA's proposed regulations states:

> IWCC systems reduce the discharge of fouling organisms and coating particles into the surrounding environment, and allow solids removed from the vessel hulls to be collected and disposed of onshore. Cleaning of hulls and niche areas, such as with IWCC systems, is necessary for vessel maintenance, and therefore the discharge of treated or filtered effluent from these systems is considered incidental to the normal operations of a vessel and authorized under the VIDA. IWCC discharges result 'from a protective, preservative . . . application to the hull of a vessel' (33 U.S.C. § 1322(a)(12)(a)(i)).[57]

This description is inaccurate. The effluent is not a discharge from a protective or preservative application to the vessel hull. The waste stream that results from the filtration and treatment system is now an industrial discharge that is the responsibility of the business entity that owns and operates the reception facility, not the vessel owner or operator. As such, discharges from in-water cleaning with capture technologies are not incidental to the normal operation of the original vessel and therefore fall outside the scope of discharges subject to VIDA. Additionally, cleaning with IWCC should not be viewed as necessary for vessel maintenance, since there are other proactive approaches that would not require reactive IWCC, such as the appropriate use of antifouling coatings or proactive periodic cleaning to prevent or remove biofilms.

Discharge of a treated waste stream from IWCC technologies is analogous to discharge of treated ballast water from barge-based or shore-based ballast water reception and treatment facilities. That treated ballast water is not an incidental discharge under the existing VGP requirements or under USEPA's proposed regulations. This is logical because the discharge is no longer the result of normal operation of a vessel; it is the result of treatment by a facility that is separate from the vessel. Section 2.2.3.5.1.2 of the VGP reads:

> *EPA notes that transferring ballast water to a treatment barge for eventual treatment and discharge could constitute "on-shore treatment" for purposes of Part 2.2.3.5.1.2. The discharge of treated ballast water (transferred from other vessels) from a treatment barge is not eligible for coverage under the VGP as this is a discharge from an industrial operation, not a discharge incidental to the normal operation of a vessel. Instead, these vessels must apply for individual NPDES permit coverage from the appropriate NPDES permit authority, generally the State in which they are operating.*[58]

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[57] 85 Fed. Reg. 67868 (Oct. 26, 2020).
[58] VGP, Section 2.2.3.5.1.2 Onshore Treatment of Ballast Water, pg. 37.

The same logic applies to the waste stream generated by reception facilities for in-water cleaning with capture. The waste stream is processed by a vendor, not the vessel that it originated from, and the point source of the discharge is the reception facility, not the vessel. As with the discharge of treated ballast water from a barge-based or shore-based treatment facility, the discharge of effluent from in water cleaning with capture should be regulated through appropriate NPDES permitting authorities, either the USEPA or states that have been delegated NPDES authority, not under VIDA.

5) USEPA failed to perform an adequate analysis of Best Available Technology (BAT) for ballast water management systems and therefore USEPA's proposed ballast water discharge standards are arbitrary and capricious

VIDA requires that the national standards of performance for nonconventional pollutants, including ANS, must require the application of best available technology economically achievable (BAT).[59] In setting the national standards for ballast water discharges based on the BAT, USEPA failed to independently review any available technologies. Instead of reviewing the available technologies for ballast water treatment, USEPA deferred to the U.S. Coast Guard's (USCG) previous review of ballast water management system (BWMS) performance data as part of the USCG type approval process. USEPA states that "these approved" BWMS have "been demonstrated to achieve the existing" USCG requirements "and therefore are technologically available."[60]

While USEPA concludes that BWMS approved by the USCG are capable of meeting the current ballast water discharge performance standards,[61] that does not equate with a determination that approved BWMS constitute BAT. To adequately conduct an independent BAT analysis for ballast water treatment, USEPA must analyze all available data submitted by independent laboratories to USCG as part of the type approval process. The raw biological performance data held by USCG in the reports submitted by independent laboratories provides the necessary information for USEPA to conduct an independent analysis to determine whether there are treatment systems available that can reduce the concentration of living organisms in ballast water discharge to a level below the standard in the 2013 VGP or USCG regulations.[62]

While USEPA failed to conduct an independent BAT assessment, USEPA claims that technology is not available to meet a ballast water discharge standard stricter than the standards in the VGP. The Court of Appeals for the Second Circuit held in 2015 in the *NRDC v. EPA* that USEPA acted "arbitrarily and capriciously" in setting the numeric ballast water discharge standards in the VGP because it failed to review data on BAT

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[59] 33 U.S.C. § 1322(p)(4)(B)(i)(III).
[60] 85 Fed. Reg. 67837 (Oct. 26, 2020).
[61] The current federal ballast water discharge standards are found in 33 CFR § 151.2030 and incorporated into the EPA's 2013 Vessel General Permit.
[62] *See* 33 C.F.R. § 151.2030.

that was available at that time.[63] USEPA is now making the same arbitrary and capricious decision on the same standards under a similar statutory command. Having failed to conduct a BAT assessment, USEPA does not know what standards the BAT could meet yet concludes that current technology cannot meet a standard more stringent than the VGP's standards.

Instead of basing its proposed standards on a BAT analysis, USEPA appears to have set the standard by working backwards toward the VGP standards that were already in place. To properly set the national standards for ballast water discharges, USEPA must:

- Determine the BAT for ballast water discharges based on reviewing the test reports from all USCG type-approved BWMS and any test reports for BMWS that are pending review by the USCG.
- Review the BAT based on "classes, types and sizes of vessels."[64] USEPA did not consider if there are separate BATs for different vessel classes because USEPA failed to review the performance of the USCG type-approved BWMS and any other data from test reports that have been submitted to the USCG for type approval.
- Determine the technology that "will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants."[65]
- Disregard international consistency of discharge standards. In the supplemental materials, USEPA claims that it must consider the International Maritime Organization's (IMO) discharge standards in setting the federal performance standards.[66] This consideration is inconsistent with VIDA, which requires USEPA to independently determine the BAT for setting *national* standards.[67] Striving to achieve consistency with the IMO standards or any foreign requirements could only undermine this independent assessment. The United States should act as a world leader in environmental protection, not defer to the IMO or other governments.

6) <u>The proposed regulations fail to be as stringent as the 2013 VGP and weaken protections against ANS introductions from ballast water discharge</u>

VIDA requires that:

> the combination of any equipment or best management practice comprising a marine pollution control device shall not be less stringent than the following provisions of the Vessel General Permit: (I) All requirements contained in parts 2.1 and 2.2.[68]

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[63] *Natural Resources Defense Council v. EPA*, 808 F.3d 556 (9th Cir. 2015).
[64] 33 U.S.C. § 1322(p)(4)(C).
[65] 33 U.S.C. § 1311(b)(2)(A).
[66] 85 Fed. Reg. 67837 (Oct. 26, 2020).
[67] 33 U.S.C. § 1322(p)(4).
[68] 33 U.S.C. § 1322(p)(4)(B)(iii).

Under Section 2.2 of the VGP, USEPA requires that vessel operators implement the following management measures to minimize or avoid uptake of ballast water in the following areas and situations:

- Areas known to have infestations or populations of harmful organisms and pathogens (e.g., toxic algal blooms).
- Areas near sewage outfalls.
- Areas near dredging operations.
- Areas where tidal flushing is known to be poor or times when a tidal stream is known to be turbid.
- In darkness, when bottom-dwelling organisms may rise up in the water column.
- Where propellers may stir up the sediment.
- Areas with pods of whales, convergence zones, and boundaries of major currents.[69]

USEPA intends to abandon these protective measures in the proposed regulation, explaining that:

> such measures are not practical to implement. These conditions are usually beyond the control of the vessel operator during the uptake and discharge of ballast water and thus it is not an available measure or practice to minimize or avoid uptake of ballast water in those areas and situations.[70]

USEPA believes that the States' power to petition for issuance of an emergency order will fill the gap created by discontinuing these protective measures.[71] Simply put, USEPA asserts that the States could identify exigent circumstances requiring additional protective measures and ask USEPA to impose case-by-case requirements. This is not a workable solution and would not be as protective as continuing to require these protective measures. The proposed regulations require that USEPA grant or deny a petition for an emergency order no later than 180 days after the petition is submitted.[72] this is a long period during which vessels could continue to uptake ballast water from areas more likely to contain organisms.

USEPA's claim that the protective measures are not practical is false. Whether an ocean condition is under the control of a vessel operator cannot determine whether a protective measure is practical. No ocean conditions are under the control of vessel operators. Nevertheless, they are still capable of adjusting vessel operations to minimize or avoid environmental impacts from ballast water discharges. For example,

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[69] Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels, section 2.2. Mandatory Ballast Water Management Practices: Management measures required of all vessel owner/operators, pg. 27-28.
[70] 85 Fed. Reg. 67835 (Oct. 26, 2020).
[71] 85 Fed. Reg. 67835 (Oct. 26, 2020).
[72] 85 Fed. Reg. 67890 (section 139.50) (Oct. 26, 2020).

operators cannot control light conditions but can plan their ballast water management to avoid or minimize uptake in daylight. There is no practical challenge to assessing whether daylight or darkness conditions exist. Similarly, operators cannot control the siting of sewage outfalls, but they can take note of where the outfalls are and avoid them.

Moreover, VIDA requires that USEPA's regulations not be less stringent than the VGP requirements. Two exceptions apply only when there is new information not previously available that supports a less stringent standard or USEPA determines that there was a previous "material technical mistake or misinterpretation of law."[73] In the rulemaking materials, USEPA offers no justification to invoke either exception. Thus, USEPA must retain these existing protective measures or develop new protective measures that are no less stringent.

7) USEPA failed to consider best management practices that would enhance the effectiveness of BAT for ballast water discharges

In the Federal Register notice, USEPA states that the "proposed standards are proactive and preventative in nature and are designed to minimize the introduction of pollutants into the waters of the United States. . . ."[74] USEPA proceeds to clarify that the term "minimize" means to "reduce or eliminate to the extent achievable using any control measure that is technologically available and economically practicable and achievable and supported by demonstrated BMPs such that compliance can be documented in shipboard logs and plans. . . ."[75] Specifically, USEPA states that some discharges, "such as ballast water, may require . . . complex behavioral practices such as saltwater flushing or ballast water exchange" to minimize discharges and pollutants.[76]

Based on the aforementioned statements in the rulemaking documents for the proposed regulations, USEPA must consider all possible control measures and management practices to minimize the discharge of nonindigenous aquatic species and water quality pollutants in ballast water.

In 2011, USEPA's own Science Advisory Board (SAB) made an overarching recommendation that "EPA adopt a risk-based approach to minimize the impacts of invasive species in vessel ballast water discharge rather than relying solely on numeric standards for discharges from shipboard BWMS."[77] SAB found that "insufficient attention has been given to integrated sets of practices and technologies that could be

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[73] 33 U.S.C. § 1322(p)(4)(D)(ii)(II).
[74] 85 Fed. Reg. 67828 (Oct. 26, 2020).
[75] 85 Fed. Reg. 67829 (Oct. 26, 2020).
[76] 85 Fed. Reg. 67829 (Oct. 26, 2020).
[77] U.S. Environmental Protection Agency. (2011b). Efficacy of Ballast Water Treatment Systems: A Report by the EPA Science Advisory Board. EPA–SAB–11–009, pg. 2.

used to systematically advance ballast water management."[78] Additionally, SAB found that "combinations of practices and technologies should be considered as potentially more effective than reliance on [BWMS] technology."[79] Further, the SAB found that "mid-ocean ballast water exchange has the potential, in combination with the other approaches discussed [in the SAB report], to further reduce the concentration of exotic organisms (though not necessarily reduce the concentration of all organisms) in ballast discharges. There is general agreement that, when properly done, ballast water exchange can reduce the concentration of initially loaded organisms by about an order of magnitude on average (Minton et al. 2005)."[80]

In 2018, the Commission completed a review of available ballast water treatment technologies and found that existing data demonstrate that ballast water exchange plus the use of a BWMS is a ballast water management approach that could considerably reduce the risk of vessel-mediated ANS introduction and establishment (see Commission 2018 and references therein to Briski et al. 2013, Briski et al. 2015, Drake et al. 2017, Paolucci et al. 2015, and Paolucci et al. 2017). Commission (2018) also found that ballast water exchange plus ballast water treatment could provide water quality benefits over ballast water treatment alone, as exchange flushes ballast tanks of polluted water sourced from ports.

USEPA already recognizes the value of exchange plus treatment in protecting freshwater environments, as exchange plus treatment is currently a required management practice in the 2013 VGP for vessels entering the Great Lakes via the Saint Lawrence Seaway System. USEPA cited the reason for retaining the ballast water exchange requirement for vessels entering the Great Lakes as adding "another measure of protection against invasive species to reduce the compatibility of source and recipient regions when freshwater or brackish water is transported via ballast tanks into the Great Lakes."[81]

In the proposed regulations, USEPA includes the requirement for ballast water exchange or salt water flushing for vessels arriving at ports in the Great Lakes via the Saint Lawrence Seaway System and for vessels carrying ballast water with a salinity of less than 18 parts per thousand and arriving at Pacific Region ports that have a salinity of less than 18 parts per thousand. However, USEPA failed to consider the benefits of ballast water exchange as a BMP for vessels arriving at ports outside the Great Lakes

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[78] U.S. Environmental Protection Agency. (2011b). Efficacy of Ballast Water Treatment Systems: A Report by the EPA Science Advisory Board. EPA–SAB–11–009, pg. 2.
[79] U.S. Environmental Protection Agency. (2011b). Efficacy of Ballast Water Treatment Systems: A Report by the EPA Science Advisory Board. EPA–SAB–11–009, pg. 97.
[80] U.S. Environmental Protection Agency. (2011b). Efficacy of Ballast Water Treatment Systems: A Report by the EPA Science Advisory Board. EPA–SAB–11–009, pg. 89.
[81] U.S. Environmental Protection Agency, "National Pollutant Discharge Elimination System (NPDES) Vessel General Permit (VGP) for Discharges Incidental to the Normal Operation of Vessels Fact Sheet," Section 4.4.3.9.4.2 WQBELs in Today's Permit, pg. 116 (2013).

or Pacific Region or for Pacific Region ports with a salinity of 18 parts per thousand or greater.[82]

USEPA recognized in the proposed regulations that ballast water exchange plus treatment is an available management practice. USEPA states that "there may be minimal impact" for vessels that are required to conduct ballast water exchange plus treatment because "many of these vessels may have been conducting exchange plus treatment prior to the compliance dates for these vessels to install a ballast water management system, to ensure compliance with the VGP."[83] In this statement, USEPA acknowledges that exchange plus treatment is available for use by vessels.

In summary, USEPA must consider ballast water exchange as a BMP for all arrivals, not just those that arrive to freshwater ports in the Pacific Region and the ports within the Great Lakes. VIDA requires the use of BMPs "to control or abate any discharge incidental to the normal operation of a vessel."[84] Ballast water exchange is a best management practice that could further control and abate ballast water discharges in waters of the United States.

8) Portions of the supplemental materials for the proposed regulations are inaccurate and misleading

The following comment is solely related to the supplemental information used to support the proposed regulations. It is important that the supplemental information is accurate, as it will be in the public record and may be used as a reference in the future. USEPA should delete or amend the following statement from its supporting materials: "Importantly, it is impractical to conduct routine monitoring and analysis of the discharged ballast water from vessels to assess the ability of an installed BWMS onboard a ship to meet the numerical discharge standard for biological parameters."[85] There are companies and organizations in place (e.g., SGS, Golden Bear Research Center, GoConsult) that conduct analyses of ballast water discharged from vessels to assess the ability of a vessel to meet a numerical discharge standard. Thus, the statement by USEPA is inaccurate and misleading.

Conclusion

The Commission appreciates USEPA's attention to these concerns. By further engaging with the States to address these concerns, USEPA could develop a proposed rule that would more effectively protect the waters of the United States and the States' interests. This is the collaboration that Congress envisioned when it enacted VIDA. Accordingly, the Commission wishes to work with USEPA cooperatively and collaboratively to ensure

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[82] 85 Fed. Reg. 67856 (Oct. 26, 2020).
[83] 85 Fed. Reg. 67856 (Oct. 26, 2020).
[84] 33 U.S.C. § 1322(p)(4)(B)(i).
[85] 85 Fed. Reg. 67836 (Oct. 26, 2020).

that USEPA has the support and State partnership needed to develop sound law and policy.

Sincerely,

JENNIFER LUCCHESI
Executive Officer

Enclosures

- Letter to Ms. Katherine Weiler, USEPA, from Jennifer Lucchesi, Commission, dated September 5, 2019
- Letter to Ms. Katherine Weiler, USEPA, from State Agencies and Departments in California, Oregon, Washington, and Hawaii, dated September 10, 2019

cc: Nicole Dobroski, Chief, Division of Environmental Planning and Management
Patrick Huber, Staff Attorney

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California State Lands Commission * California State Water Resources Control Board * Hawaii Department of Land and Natural Resources * Oregon Department of Environmental Quality * Washington Department of Ecology * Washington Department of Fish and Wildlife

November 25, 2020

Mr. Jack Faulk
Oceans and Coastal Management
Branch (4504T)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460
faulk.jack@epa.gov

Subject: Vessel Incidental Discharge National Standards of Performance [Docket No. EPA-HQ-OW-2019-0482]

Dear Mr. Faulk:

Please accept these comments to the U.S. Environmental Protection Agency (USEPA) on behalf of the undersigned State Agencies and Departments (collectively "States") in response to the proposed Vessel Incidental Discharge National Standards of Performance (Docket No. EPA-HQ-OW-2019-0482) pursuant to 33 U.S.C. section 1322. While each of the undersigned States does not necessarily have authority over every pollutant discussed in this letter, all are responsible for protecting State waters from harm through the implementation of discharge standards that protect state waters and are committed to preserving authorities reserved by Congress for States to act in the best interests of their states.

The States have seven major concerns regarding the proposed national standards of performance for marine pollution control devices for discharges incidental to the normal operation of a vessel. Those concerns are:

1) USEPA violated the Vessel Incidental Discharge Act (VIDA) requirement to consult with interested governors
2) The 30-day public comment period is inadequate to assess and comment on the proposed regulations and associated impacts to States
3) USEPA is violating VIDA by attempting to regulate biofouling as an incidental discharge
4) USEPA is violating VIDA by attempting to regulate vessel in-water cleaning

and capture operations as an incidental discharge

5) The proposed regulations fail to be as stringent as the 2013 Vessel General Permit (VGP) and weaken protections against aquatic nuisance species introductions from ballast water discharge
6) USEPA failed to perform an adequate analysis of Best Available Technology (BAT) for ballast water management systems and therefore USEPA's proposed ballast water discharge standards are arbitrary and capricious
7) USEPA's proposed regulations threaten state waters by eliminating state authorities to establish water quality standards

Each of these areas of concern is discussed in more detail below.

1) USEPA violated VIDA's requirement to consult with interested governors

USEPA failed to engage in a robust federal/state consultation process. VIDA requires USEPA to promulgate federal standards of performance for marine pollution control devices "in consultation with interested Governors." The requirement to consult was meant to allow Governors to influence the development of the standards of performance prior to publishing those rules in the Federal Register for public review.

On July 10 and 18, 2019, USEPA scheduled meetings with states' Governors or their delegates. These meetings were purported to comply with USEPA's obligation to consult with interested Governors. At the meetings, USEPA was unwilling or unable to answer many questions about its contemplated approaches for regulating incidental discharges and, instead, referred the States to the Vessel General Permit (VGP). Following the July 10th and 18th meetings, the States sent a joint letter to USEPA on September 10, 2019, detailing the States' concerns and identifying important subjects that required consultation with USEPA. In response to that letter, no draft language for review or comment was provided. Instead, USEPA held a follow-up call on January 15, 2020, during which USEPA staff was willing only to listen to State comments, not engage in meaningful discussion and consultation.

These nominal efforts failed to comply with VIDA's requirement for consultation with interested Governors. USEPA has provided no meaningful opportunity for interested Governors to participate and comment prior to this extremely short 30-day comment period. This failure to consult with interested Governors is apparent in the proposed regulations. Consequently, we are now commenting on USEPA's grossly under protective standards and violations of VIDA whereas these fundamental differences should have been resolved through consultation. The States remain concerned that the proposed standards will fail to protect our waters.

2) The 30-day public comment period is inadequate to assess and comment on the proposed regulations and associated impacts to States

The purpose of a comment period under § 553(c) of title 5, U.S.C., is to "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments…." The 30-day comment period offered by the USEPA to review this proposed rule is totally inadequate for States to understand this important, complex, and technical rule and meaningfully participate as intended by the statute. The proposed rule involves multiple regulatory agencies in each State and requires consultation with experts to determine the appropriate technology standards. The fact that USEPA was not able to publish the proposed rule until October 26, 2020, when the requirement for USEPA to promulgate these standards was enacted into law on December 4, 2018 (33 USC 1322(p)(4)(A)(i)), indicates how complex the rule is and that a reasonable comment period is needed for States.

Further, the proposed rulemaking includes 593 supporting documents listed in the docket. A 90-day comment period is what should have been allowed to enable States to adequately assess and comment on the proposed regulations and associated impacts to States' environment, economy, and the health of their people. Due to the scope and complexity of the proposed regulations, a 30-day public comment period has effectively deprived the public and States from having a meaningful opportunity to participate in the rulemaking process.

3) USEPA is violating VIDA by attempting to regulate biofouling as an incidental discharge

Biofouling is not a discharge incidental to the normal operation of a vessel and therefore should not be regulated under VIDA. Congress did not define *discharge incidental to the normal operation of a vessel* when it adopted VIDA. Rather, Congress added VIDA as a new subparagraph to an existing statute that already included a definition of *discharge incidental to the normal operation of a vessel*.[1] Biofouling, the attachment or association of organisms to a vessel's wetted surfaces, does not fit within the definition of an incidental discharge. Biofouling organisms may be discharged or knocked off a vessel during in-water cleaning events, but the mere presence of organisms on the wetted surfaces of a vessel is not a discharge.

USEPA is restricted to establishing national standards of performance for discharges incidental to the normal operation of a vessel. In the proposed regulations, USEPA concludes that the mere presence of biofouling, in the absence of in-water cleaning or maintenance, is also an incidental discharge. In

[1] 33 U.S.C. § 1322.

doing so, USEPA exceeds its authority under VIDA. USEPA must remove proposed requirements to regulate biofouling from the proposed regulations.

4) USEPA is violating VIDA by attempting to regulate vessel in-water cleaning and capture operations as an incidental discharge

USEPA lacks authority to regulate effluents from in-water cleaning and capture (IWCC) systems under VIDA. Currently USEPA does not regulate IWCC through the VGP; IWCC service providers must get an individual NPDES permit because the removed materials are transferred to a separate entity's commercial and industrial barge-based or shore-based reception facilities for treatment.

In the proposed regulations, USEPA treats discharges from IWCC operations as discharges incidental to the normal operation of a vessel. However, the treated discharge from the barge-based or shore-based reception and treatment is an industrial discharge. These industrial discharges are the responsibility of the business entity that owns and operates the reception facility, not the vessel owner or operator.

Discharge of a treated waste stream from IWCC technologies is analogous to discharge of treated ballast water from barge-based or shore-based ballast water reception and treatment facilities. The treated ballast water is not an incidental discharge under the VGP requirements or under USEPA's proposed regulations. This is logical because the discharge is no longer the result of normal operation of a vessel; it is the result of treatment by a facility that is separate from the vessel (see Section 2.2.3.5.1.2 from the 2013 VGP).

The same logic necessarily applies to the waste stream generated by reception facilities for IWCC. The waste stream is processed by a vendor, not the vessel in which it originated from; the point source of the discharge is the reception facility, not the vessel. Like the discharge of treated ballast water from a barge-based or shore-based treatment facility, the discharge of effluent from IWCC must be regulated through appropriate NPDES permitting authorities, not VIDA.

5) The proposed regulations fail to be as stringent as the 2013 Vessel General Permit (VGP) and weaken protections against aquatic nuisance species introductions from ballast water discharge

VIDA requires that USEPA's regulations not be less stringent than the VGP requirements.[2] Under Section 2.2 of the VGP, USEPA requires that vessel operators implement management measures to minimize or avoid uptake of ballast water in the following areas and situations:

[2] 33 U.S.C. § 1322(p)(4)(B)(ii).

- Areas known to have infestations or populations of harmful organisms and pathogens (e.g., toxic algal blooms).
- Areas near sewage outfalls.
- Areas near dredging operations.
- Areas where tidal flushing is known to be poor or times when a tidal stream is known to be turbid.
- In darkness, when bottom-dwelling organisms may rise up in the water column.
- Where propellers may stir up the sediment.
- Areas with pods of whales, convergence zones, and boundaries of major currents.[3]

USEPA intends to abandon these protective measures in the proposed regulations, explaining that "such measures are not practical to implement. These conditions are usually beyond the control of the vessel operator…"[4]

USEPA's claim that the protective measures are not practical is false. Whether an ocean condition is under the control of a vessel operator cannot determine whether a protective measure is practical. No ocean conditions are under the control of vessel operators. Nevertheless, they are still capable of adjusting vessel operations to minimize or avoid environmental impacts from ballast water discharges. For example, operators cannot control light conditions but can plan their ballast water management to avoid or minimize uptake in daylight.

Further, USEPA believes that the States' power to petition for issuance of an emergency order will fill the gap created by discontinuing these protective measures.[5] This is not a workable solution and would not be as protective as continuing to require these protective measures. The proposed regulations require that the USEPA grant or deny a petition for an emergency order no later than 180 days after the petition is submitted (§ 139.50(c)(1)); this is a long time period during which vessels could continue to uptake ballast water from areas more likely to contain harmful organisms.

USEPA must retain the existing protective measures or develop new protective measures that are no less stringent or it will be in violation of VIDA.

[3] Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels, section 2.2.3.3 Mandatory Ballast Water Management Practices: Management measures required of all vessel owner/operators, pg. 27-28.
[4] 85 Fed. Reg. 67835 (Oct. 26, 2020).
[5] 85 Fed. Reg. 67835 (Oct. 26, 2020).

6) USEPA failed to perform an adequate analysis of Best Available Technology (BAT) for ballast water management systems and therefore USEPA's proposed ballast water discharge standards are arbitrary and capricious

VIDA requires that the national standards of performance for nonconventional pollutants, including aquatic nuisance species, must require the application of best available technology economically achievable (BAT).[6] In setting the national standards for ballast water discharges based on the BAT, the USEPA failed to independently review all existing and available ballast treatment technologies. Instead, USEPA relied on a limited submission of BWMS performance data from the Ballast Equipment Manufacturer's Association (BEMA). BEMA provided data from 11 USCG-approved BWMS. As of October 21, 2020, USCG had approved 37 BWMS and reported another 8 BWMS pending review. Thus, USEPA included less than one-quarter of the available data on BWMS in its analysis of BAT and relied on an industry organization, instead of an independent laboratory, to provide the data for that analysis. Without having properly identified the BAT and its capabilities, USEPA does not know what discharge standards the BWMS can meet, and thus acted arbitrarily and capriciously in proposing the ballast water discharges standards.

The U.S. 2nd District Court of Appeals decided in 2015 in the *NRDC v. EPA* that the USEPA acted "arbitrarily and capriciously" in setting the numeric ballast water discharge standards in the VGP because it failed to review data on BAT that was available at that time.[7] USEPA is now making the same arbitrary and capricious decision on the same standards under a different law with a similar statutory command. Having failed to conduct a BAT assessment, USEPA does not know what standards the BAT could meet yet concludes that current technology cannot meet a standard more stringent than the VGP's standards.

USEPA must conduct a thorough investigation into what constitutes the best available ballast water treatment technology prior to setting ballast water discharge standards to implement VIDA. Failure to do so would result in an arbitrary and capricious final action that will subject the U.S. to standards that are neither protective of U.S. waters nor reflective of available technology.

7) USEPA's proposed regulations threaten state waters by eliminating state authorities to establish water quality standards

The proposed standards of performance for discharges are far weaker than those states have used for decades to protect their waters from aquatic nuisance species and water pollution. Instead of seriously reviewing and applying current state regulatory requirements, one of the deepest sources of this information

[6] 33 U.S.C. § 1322(p)(4)(B)(i).
[7] *Natural Resources Defense Council v. EPA*, 808 F.3d 556 (9th Cir. 2015).

based on decades of experience and application, USEPA chose to simply apply the lowest common denominator of the current standards in Part 2 of the VGP rather than reviewing and adopting the more stringent state-approved standards in Part 6 of the VGP.

The proposed water quality standards, or lack of standards in some cases, would allow discharges of pollutants in concentrations that are orders of magnitude higher than state standards for the same pollutants. For example, USEPA did not propose specific water quality standards for copper or zinc. Vessel owners and operators are told to “minimize” those discharges. Based on effluent data from in-water cleaning operations (without capture), the proposed regulations would allow discharge concentrations for total copper as high as 34,000 micrograms/liter or about 9,000 times greater than California’s water quality objective for that pollutant, and the proposed regulations would allow concentrations of total zinc as high as 29,000 micrograms/liter or about 300 times greater than California’s water quality objective. Essentially, USEPA is proposing to allow the discharge of an industrial waste stream directly into U.S. surface waters, undermining the Clean Water Act’s purpose of preventing, reducing, and eliminating pollution into the nation’s waters. USEPA must revise the proposed regulations to contain standards to be as stringent as those promulgated by States, in compliance with the intent of the Clean Water Act.

Conclusion

The States appreciate USEPA's attention to these concerns. We wish to work with USEPA cooperatively and collaboratively to ensure that USEPA staff has the best available information as the proposed regulations are finalized.

Sincerely,

The Undersigned State Agencies and Departments

DocuSigned by:
Jennifer Lucchesi
A8DE3BBAE92D437...

Jennifer Lucchesi
Executive Officer
California State Lands Commission

DocuSigned by:
Eileen Sobeck
1A0674E256DC40D...

Eileen Sobeck

Executive Director

California State Water Resources Control Board

DocuSigned by:
Suzanne D. Case
B86CFF0FCBBC48C...

Suzanne Case
Chairperson
Hawaii Department of Land and Natural Resources

DocuSigned by:
Richard Whitman
D860F041E121404...

Richard Whitman
Director
Oregon Department of Environmental Quality

DocuSigned by:
Laura Watson
CD522B1ED599427...

Laura Watson
Director
Washington Department of Ecology

DocuSigned by:
Kelly Susewind
5D07481711264C1...

Kelly Susewind
Director
Washington Department of Fish and Wildlife