

U.S. EPA Ballast Water Update

March 29, 2022

Overview

- Update on EPA Vessel Discharge Standards
 - Stakeholders Meetings
 - Next Steps
- Vessel Data
- Questions

Final 2013 VGP

VESSEL GENERAL PERMIT FOR DISCHARGES INCIDENTAL TO THE NORMAL OPERATION OF VESSELS (VGP)

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act (CWA), as amended (33 USC 1251 et seq.), any owner or operator of a vessel being operated in a capacity as a means of transportation who:

- Is eligible for permit coverage under Part 1.2; and
- If required by Part 1.5.1, submits a complete and accurate Notice of Intent (NOI) or completes a Permit Authorization and Record of Inspection (PARI) form and retains it onboard the vessel

Is authorized to discharge in accordance with the requirements of this permit.

General effluent limits for all eligible vessels are given in Part 2. Further vessel class or type specific requirements are given in Part 5 for select vessels and apply in addition to any general effluent limits in Part 2. Specific requirements that apply in individual states and Indian Country Lands are found in Part 6. Definitions of permit-specific terms used in this permit are provided in Appendix A.

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This

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 139

[EPA-HQ-OW-2019-0482; FRL-10015-54-OW]

RIN 2040-AF92

Vessel Incidental Discharge National Standards of Performance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

Proposed Rule

**ENVIRONMENTAL PROTECTION
AGENCY**

40 CFR Part 139

[EPA-HQ-OW-2019-0482; FRL-10015-54-OW]

RIN 2040-AF92

**Vessel Incidental Discharge National
Standards of Performance**

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Proposed rule.

VIDA Enacted
December 6, 2018

NPRM published
October 26, 2020

30-day public comment
period

Comments
Consideration

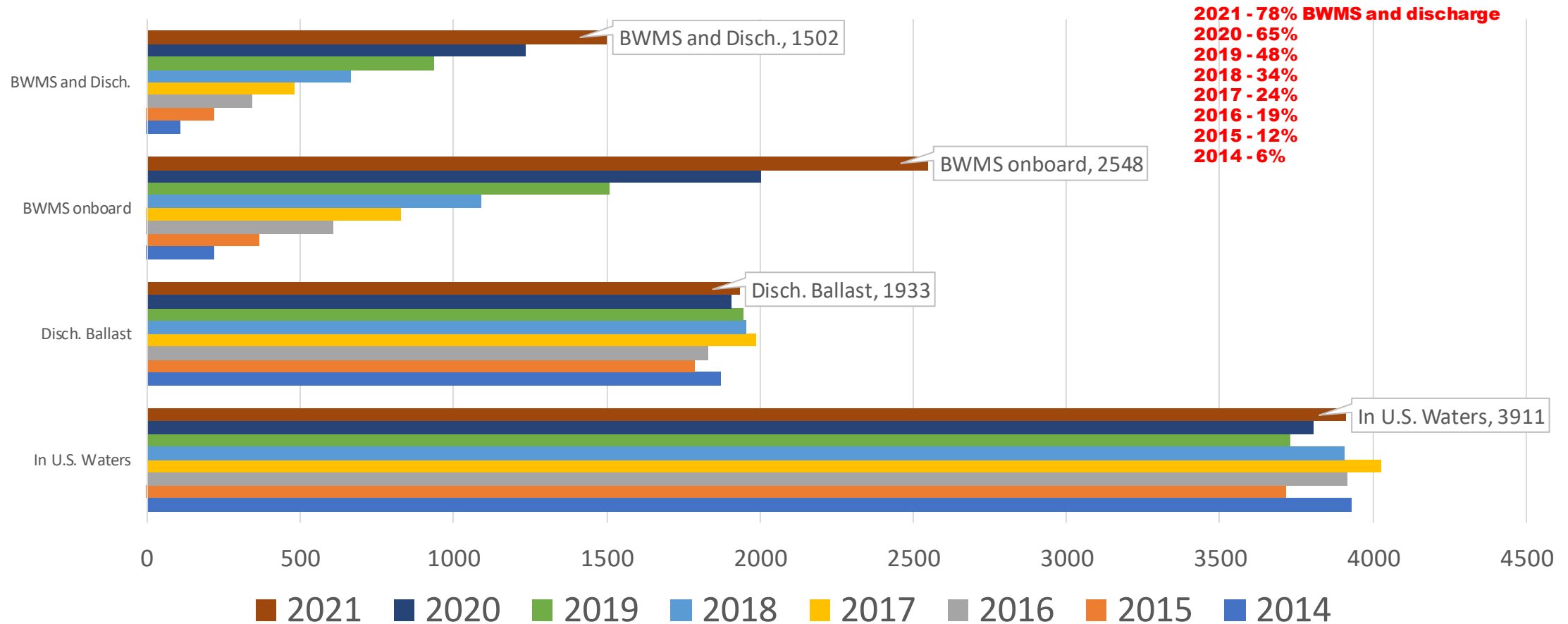
Re-Engagement Meetings

- States
 - Ballast water best management practices
 - Biofouling
 - Hull cleaning
 - Great Lakes Laker ballast water
 - Exhaust gas cleaning systems
 - Ballast water best available technology economically achievable
 - State petitions/applications
 - Followup - Key takeaways
- Tribes
- Environmental Organizations
- Industry

Next Steps

- Informational/Options briefings for the Office of Water
 - Ballast Water Best Management Practices
 - Requirements for Lakers
 - Exhaust Gas Cleaning Systems (Scrubbers)
 - Hulls and Niches
 - Ballast Water Standards
- Determine path forward for Rulemaking (Notice of Data Availability, Revised Proposed Rule, Final Rule)
- Current schedule – finalize standards by December 2022

Number of Vessels – Ballast Water in the U.S. Pacific Region*



* Vessels operating in the Pacific Region include VIDA defined area plus inland waters and US territories.

Source: 2021 VGP Annual Reports (as of March 14, 2022)

Vessels in U.S. Pacific Region - 2021

Vessel Type	In Pacific/West	Discharge Ballast	BWMS Onboard	Discharge + BWMS	% Disch + BWMS
Bulk Carrier	1280	1,080	1072	920	85
Tanker	682	495	530	384	78
Container Ship	686	80	513	64	80
Roll-On Roll-Off	295	27	227	17	63
Cargo Ship	225	121	143	88	73
Cruise Ship	41	8	29	8	100
Other	702	122	34	21	17

Source: 2021 VGP Annual Reports (as of March 14, 2022)

Ballast Water Biological Monitoring (2014-2021)

Analyte	Units	No. Samples	Results				
			≤ 1 org.	Max. Det. Value	90 th Percentile	Median of “detects” (>1 org)	At or Above VGP Numeric Limit
E. Coli <i>VGP Limit: 250 cfu/100 mL</i>	cfu/100 mL	3,928	2,742	37,000	41	11	106 at, 35 above 250 (<1%)
	MPN/100 mL	4,806	1,999	193,000	20	10	
Enterococci <i>VGP Limit: 100 cfu/100 mL</i>	cfu/100 mL	5,009	3,476	222,000	10	7	137 at, 59 above 100 (1.2%)
	MPN/100 mL	3,677	1,102	73,800	33	10	
Heterotrophic bacteria	cfu/100 mL	6,621	1,029	2.3X10 ⁶	9,200	146	N/A
	MPN/100 mL	2,226	231	738,000	50,700	600	N/A

Source: 2021 VGP Annual Reports (as of March 14, 2022)

Ballast Water Biocide Monitoring (2014-2021)

Analyte	No. Samples	Max. Reported Value (mg/L)	90 th Percentile (mg/L)	Median Reported Value (mg/L)	Above VGP Numeric Limit
Bromate	854	5,000	4	0.2	N/A
Bromoform	1,658	845	0.44	0.04	N/A
Chlorine Dioxide <i>VGP limit: 0.2 mg/l</i>	2,732	21,400	0.13	0.02	164 (6%)
Chlorate	4,444	10,000	5	1	N/A
Chlorite	4,467	21,400	5	1	N/A
HAAs	4,475	1,880	0.13	0.02	N/A
TRO <i>VGP limit: 0.1 mg/l</i>	4,632	3,000	0.1	0.02	368 (8%)
THMs	4,589	26,026	0.58	0.1	N/A

Source: 2021 VGP Annual Reports (as of March 14, 2022)

Pacific Region Ballast Water Non-Compliance

- Approximately 1,900 vessels a year report ballast water discharges in the Pacific Region.
- In 8 years of VGP reporting, 312 vessels reported a total of 798 non-compliant ballast water events, including:
 - Operating pursuant to EPA enforcement response policy (exchange only)
 - Failure to perform all monitoring
 - BWTS malfunction, including failure to calibrate
 - Improper/failure to conduct exchange
 - Discharge limit violations

Year	# Reported Ballast Water BW Noncompliance Events	# Vessels
2021	175	121
2020	146	86
2019	45	37
2018	184	40
2017	123	27
2016	80	20
2015	22	12
2014	23	19

Source: 2021 VGP Annual Reports (as of March 14, 2022)

Online Resources: EPA Webpages



Vessels, Marinas and Ports

Vessel Discharges



- [Sewage and no-discharge zones](#)
- [Commercial vessels](#)
- [Recreational vessels](#)
- [Vessels of the Armed Forces](#)

Marine Engines



- [Overview of emissions regulations](#)
- [Certification and compliance](#)
- [Certification data](#)

Marinas



- [Nonpoint source pollution resources](#)
- [Spill prevention and control](#)

Ports



- [Ports Initiative](#)
- [Clean diesel](#)
- [Grant-funded port projects](#)
- [Dredged material](#)

News and Updates

On October 5, 2020, EPA Administrator Andrew Wheeler signed the [proposed rule](#) for national standards to reduce the environmental impact of discharges, such as ballast water, that are incidental to the normal operation of commercial vessels. When finalized, this new rule will streamline the current patchwork of federal, state, and local requirements that apply to the commercial vessel community and better protect our nation's waters. [Learn more about the EPA proposed standards.](#)

<https://www.epa.gov/vessels-marinas-and-ports>

Questions?