

# EPA Ballast Water Update

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Jack Faulk  
Office of Wetlands, Oceans, and Watersheds  
Oceans and Coastal Protection Division  
U.S. Environmental Protection Agency

*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

*To authorize to discharge in accordance with the requirements of this permit*

**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.

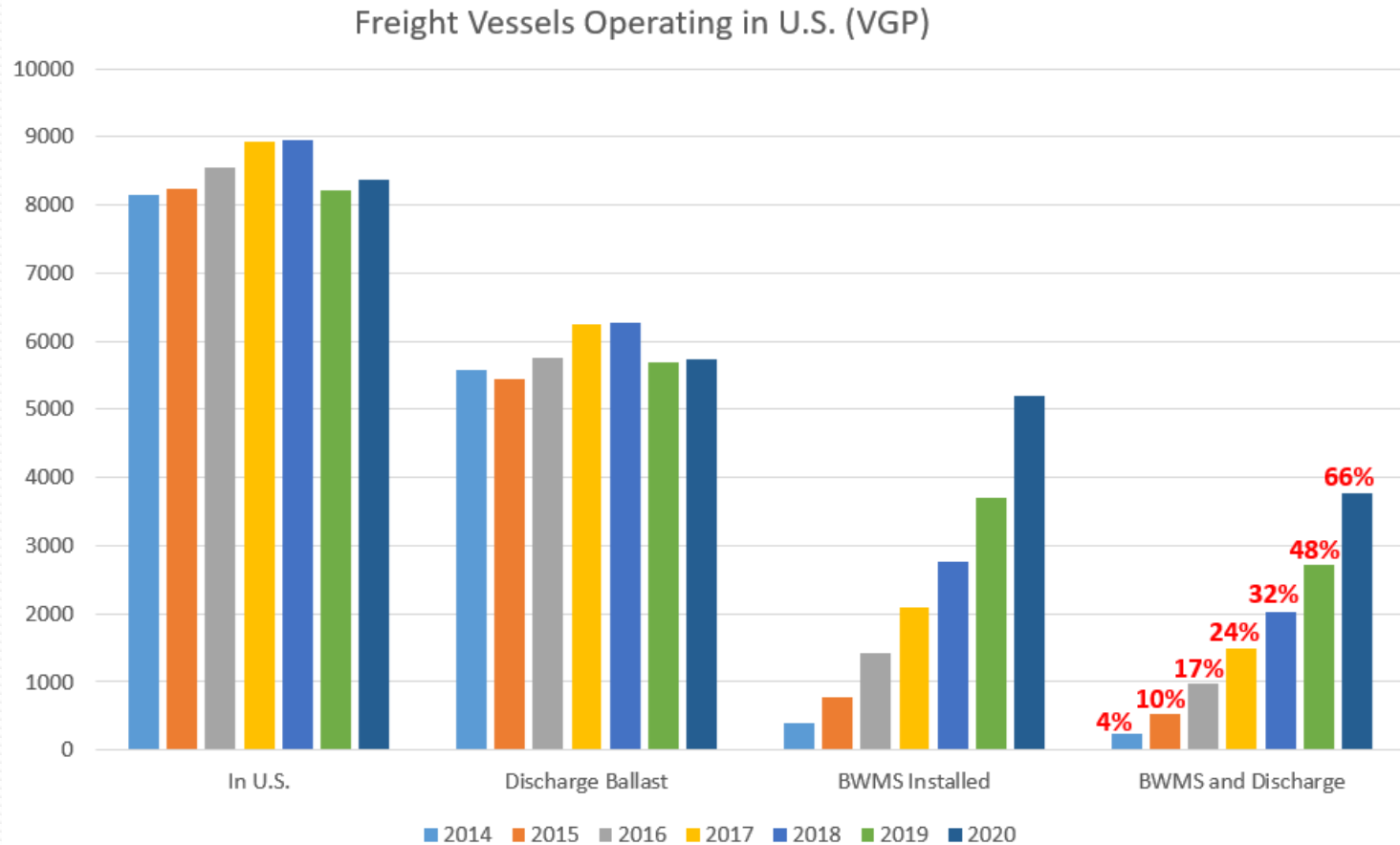
# VGP Annual Report Data (Pacific Region)

	<b><u>2014</u></b>	<b><u>2015</u></b>	<b><u>2016</u></b>	<b><u>2017</u></b>
Total Number of Annual Reports	42,154	43,063	43,229	41,339
Operated in US Waters	35,415	36,031	36,120	34,284
Operated in Pac. Reg.	3,927	3,715	3,906	3,930
Discharged Ballast Water (Pac. Reg.)	1,872	1,790	1,833	1,941
BWMS Onboard (Pac. Reg.)	218	363	608	811
Discharge BW/BWMS Onboard (Pac. Reg.)	110	218	345	462

	<b><u>2018</u></b>	<b><u>2019</u></b>	<b><u>2020</u></b>	
Total Number of Annual Reports	42,029	43,101	<b>43,645</b>	
Operated in US Waters	34,533	34,356	<b>33,091</b>	
Operated in Pac. Reg.	3,900	3,701	3,537	11%
Discharged Ballast Water (Pac. Reg.)	1,950	1,927	1,796	51%
BWMS Onboard (Pac. Reg.)	1,085	1,499	1,926	54%
Discharge BW/BWMS Onboard (Pac. Reg.)	663	927	1,183	66%



# Ballast Water Treatment in the U.S.



# Vessels in Pacific Region - 2020 (2017)

Vessel Type	Discharge Ballast	BWMS Onboard	Discharge + Treat	% Treat
Bulk Carrier	1,021 (1,027)	859 (326)	749 (287)	74 (28)
Tanker	456 (478)	373 (150)	287 (93)	63 (19)
Container Ship	75 (112)	363 (132)	50 (28)	67 (25)
Roll-On Roll-Off	21 (23)	176 (112)	7 (3)	33 (13)
Cargo Ship	114 (112)	110 (51)	71 (37)	62 (33)
Cruise Ship	7 (14)	127 (27)	5 (8)	71 (57)
Other	102 (175)	118 (13)	14 (6)	14 (3)



# Ballast Water Biological Monitoring (2014-2020)

Analyte	Units	No. Samples	Below Detect	Below Quant.	Quant.	Max. Det. Value	90 <sup>th</sup> Percentile	Mean Quant.	# Exceed Limits
<b>E. coli</b>	cfu/ 100 mL	2,295	1,002	918	375	9,810	100	4	15 (<1%)
	MPN/ 100 mL	2,787	964	958	865	24,200	64	5	N/A
<b>Enterococci</b>	cfu/ 100 mL	3,029	1,266	1,206	557	222,000	49	4	22 (<1%)
	MPN/ 100 mL	2,040	645	643	752	24,000	126	10	N/A
<b>Heterotrophic bacteria</b>	cfu/ 100 mL	3,999	966	1,124	1,909	2.3X10 <sup>6</sup>	22,000	360	N/A
	MPN/ 100 mL	1,125	263	269	593	738,000	62,300	1,500	N/A



# Ballast Water Biocide Monitoring (2014-2020)

Analyte	No. Samples	Below Detect	Below Quant.	Quant.	Max. Det. Value (mg/L)	90 <sup>th</sup> Percentile (mg/L)	Mean Quant. (mg/L)	Exceed Limits #
Bromate	587	205	253	129	5	2.3	0.21	N/A
Bromoform	940	184	273	483	259	0.4	0.056	N/A
ClO <sub>2</sub>	2,034	596	800	638	21,400	0.14	0.038	37 (2%)
Chlorate	2,472	948	948	806	5,000	65	1.16	N/A
Chlorite	2,490	837	837	661	21,400	37	0.89	N/A
HAAs	2,509	493	493	1,384	217	0.22	0.04	N/A
TRO	2,739	710	710	1,327	500	0.44	0.09	166 (6%)
THMs	2,563	639	639	496	621	1.0	0.12	N/A



# Pacific Region Ballast Water Non-Compliance

- Approximately 1,900 vessels a year report ballast water discharges in the Pacific Region.
- 183 vessels reported a total of 586 non-compliant ballast water events
  - Operating pursuant to EPA enforcement response policy
  - Failure to perform all monitoring
  - BWTS malfunction
  - Failure to calibrate BWTS
  - Improper/failure to exchange
  - Discharge limit violations

Year	# BW Non-Comp. Events	# Vessels
2020	130	72
2019	41	34
2018	178	34
2017	115	22
2016	76	20
2015	22	12
2014	24	20

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



# Ballast Water Non-Compliance Reasons

- 54 reported citations (2014-2020) for vessels operating in the Pacific Region.
  - 14 improper exchange
  - 14 violation (reason not identified – 11 in CA, 1 in OR)
  - 7 late or improper reporting
  - 5 recordkeeping
  - 4 BWTS malfunction
  - 4 failure to conduct exchange
  - 3 discharges of untreated/unexchanged ballast
  - 1 unacceptable salinity level (OR)
  - 1 safety exemption
  - 1 late contingency plan (CA)

# Ballast Water Safety Exemptions

- 52 reported exemptions (2014-2020) for vessels operating in the Pacific Region.
  - 39 exchange exemptions to not deviate or delay voyage
  - 4 for operating under enforcement response policy until BWTS installed
  - 3 for inoperable BWTS
  - 2 for delays in installing BWTS
  - 2 for unknown reasons
  - 1 for vessel stability concern
  - 1 for lack of treatment chemical availability

# Online Resources: EPA Webpages



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### 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>