

US EPA Vessel General Permit Administration



Jack Faulk
Water Permits 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

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.

This permit becomes effective on December 19, 2013.

This permit and the authorization to discharge expire at midnight December 19, 2018.

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April 11, 2018

VGP – Brief History & Key Dates

- **Oct 72:** Clean Water Act became law.
- **Sep 06:** District Court revokes EPA regulation that exempts discharges incidental to the normal operation of a vessel (DINOVs) from permitting.
- **Jul 08:** US Appeal Court (9th Cir) upholds decision.
- **Jul 08:** Two laws enacted that (1) exempt rec. vessels from permits and (2) delays compliance date for vessels <79 feet and commercial fishing vessels.
- **Dec 08:** EPA finalizes first VGP (5-yr. term).
- **Dec 13:** Effective date of second VGP (thru Dec 18).
- **Dec 14:** Effective date of sVGP for small vessels.
- **Jan 18:** Moratorium for commercial fishing vessels and other small vessels ends (i.e., permit now required)



Current VGP Implementation and Enforcement Approach

- EPA – Implement and administer the VGP
- USCG – Inspect vessels for compliance with the VGP
- EPA – Enforce (and limited inspections for) the VGP



2013 VGP – Overview

- Effective December 19, 2013 – December 19, 2018
- Commercial vessels >79 feet and any other vessels with ballast water discharges
- Jurisdiction of the permit
 - All waters of the United States (Inland waters, territorial sea up to 3 nm)
- 27 different discharges
- Certain vessel discharges not eligible for coverage (e.g., sewage, reportable quantities of oil)



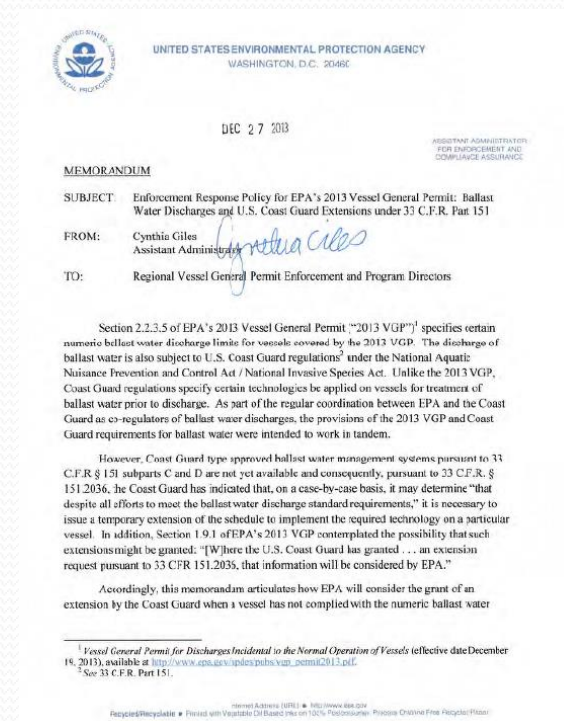
2013 VGP Requirements

- Permit Coverage
 - > 300 GT or with capacity to hold or discharge > 8 m³ of ballast water - submit a Notice of Intent (NOI).
 - Others – retain PARI form
- Effluent Limitations - numeric and/or best management practices for 27 discharges
- Discharge Monitoring for 4 discharges
- Inspections - routine visual and annual
- Reporting (electronic) and recordkeeping
- Add'l State- and vessel-class specific reqmts.



EPA Ballast Water Enforcement Response Policy

- On December 27, 2013 EPA issued an Enforcement Response Policy (ERP).
- The ERP states that vessels that don't meet the VGP's numeric ballast water limits and have received an extension from the USCG and are otherwise in compliance with all other VGP requirements, including submission of a valid NOI, are considered a low enforcement priority.
- EPA and the USCG developed a joint package that is sent to vessel owners/operators that have received an extension from the USCG.
 - This package includes the USCG extension, the ERP and a joint cover letter signed by both Agencies.
- We believe the ERP addresses the primary concerns of industry regarding non-alignment of requirements of the USCG and EPA.



Commercial Vessel Incidental Discharge Act ("C-VIDA") Draft Legislation (S.168/HR.1154)

- Consolidates ballast water treatment regulations with USCG
- Requires USCG to develop type approval testing policy based on organism viability
- Requires exchange + treatment for overseas vessels in Great Lakes
- Codifies 2013 VGP for all non-ballast water discharges, except state requirements, for at least 2 years until USCG issues new regulations
- Permanently exempts small & commercial fishing vessels
- Requires states to petition the USCG to impose more stringent requirements or to enforce USCG requirements
- Requires EPA to establish standards for ballast water reception facilities within one year.

Development of 2018 VGP

- Current VGP expires - December 18, 2018
 - Publish Draft Permit
 - Public Comment Period
 - Publish Final Permit
- Reissue Permit - December 19, 2018



2018 VGP Development Considerations

- Existing 2013 VGP/Annual Report Data
 - 2nd Circuit Court Decision
 - Best Available Technology/Studies
 - Permit Clarity and Streamlining
 - Input from Stakeholders
-
- Endangered Species Act Consultation
 - State Certifications (CWA Section 401)
 - Tribal Consultation



October 5, 2015 2nd Circuit Court Decision

Findings Against EPA (arbitrary and capricious)

Technically Based Limits for ballast water

- Improper reliance on IMO Standard
- Failure to adequately consider onshore treatment
- Inappropriate exemption of 2009 Great Lakes “Lakers” from numeric limits

Water-Quality requirements for ballast water

- Insufficient water quality based limits
 - Inadequate water quality based monitoring
-
- Permit remains unchanged until reissuance in 2018.



Possible New Part 1 Structure

1. COVERAGE UNDER THIS PERMIT

1.1 Eligibility

1.1.1 Vessel Discharges Eligible for Coverage

1.1.2 Limitations on Coverage

1.2 Authorization under this Permit

1.2.1 How to Obtain Authorization

1.2.1.1 Vessels Requiring a Notice of Intent (NOI)

1.2.1.2 Vessels Not Requiring a Notice of Intent (NOIs)

1.2.2 Continuation of this Permit

1.3 Terminating Coverage

1.4 Other Federal and State Laws

**From 13 pp./68 headings
to 5 pp./11 headings**



Streamlining Permit Language

5.1.2.2.2 Maintenance Monitoring

After demonstrating the effectiveness of their system, vessel owners/operators must collect and analyze one sample per quarter for each of the constituents listed in Part 5.1.2.2.1 to demonstrate treatment equipment maintenance and compliance with this permit for any quarter the vessel discharges graywater into waters subject to this permit. Furthermore, samples must be taken for *E. coli*, total phosphorus (TP), ammonia, nitrate/nitrite, and Total Kjeldahl Nitrogen (TKN). Regardless of whether a vessel has discharged into waters subject to this permit, maintenance monitoring must be conducted at least once per year or vessels must re-conduct initial monitoring in accordance with Part 5.1.2.2.1 before discharging into waters subject to this permit. Records of the sampling and testing results must be retained onboard for a period of 3 years in the vessel's recordkeeping documentation.

5.1.2.2.2 Maintenance Monitoring

You must:

- Sample quarterly for each of the constituents listed in Part 5.1.2.2.1 for any calendar quarter the vessel discharges graywater into waters subject to this permit.
- For any large cruise ship, sample annually regardless of whether the vessel has discharged into waters subject to this permit; otherwise, re-conduct initial monitoring in accordance with Part 5.1.2.2.1 before discharging into waters subject to this permit.



2013 VGP Reporting Information Summary



Notice of Intent (NOI) Data for 2013 VGP

Vessel Type	No. NOIs	Non-US Flagged	US Flagged
Bulk Carrier	7,258	7,201	1%
Container Ship	2,263	2,189	3%
Cargo/Reefer	1,651	1,622	2%
Passenger	655	262	60%
Tanker	5,113	5,044	1%
RORO/PCC/PCTC	726	670	8%
Barges	29,503	140	99.5%
Other (e.g., OSV, research, emergency)	4,084	469	89%
Total	51,393	17,597	66%
"Oceangoing"	19,146	16,907	12%

<https://ofmpub.epa.gov/apex/vgpenoi/f?p=vgp:Search>



VGP Annual Report Data

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Number of Annual Reports	42,154	43,063	43,229	41,339
Operated in US Waters	35,415	36,031	36,120	34,284
Discharged Ballast Water in US Waters	6,289	6,232	6,450	6,486
BWMS Onboard	429	834	1,458	2,093
BWMS Onboard/Discharge BW in US	247	537	963	1,426
BW Monitoring Data Provided	37	86	167	368



VGP Annual Report Data (Pacific Region)

	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
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
BWMS Onboard/Discharge BW (Pac. Reg.)	110	218	345	462



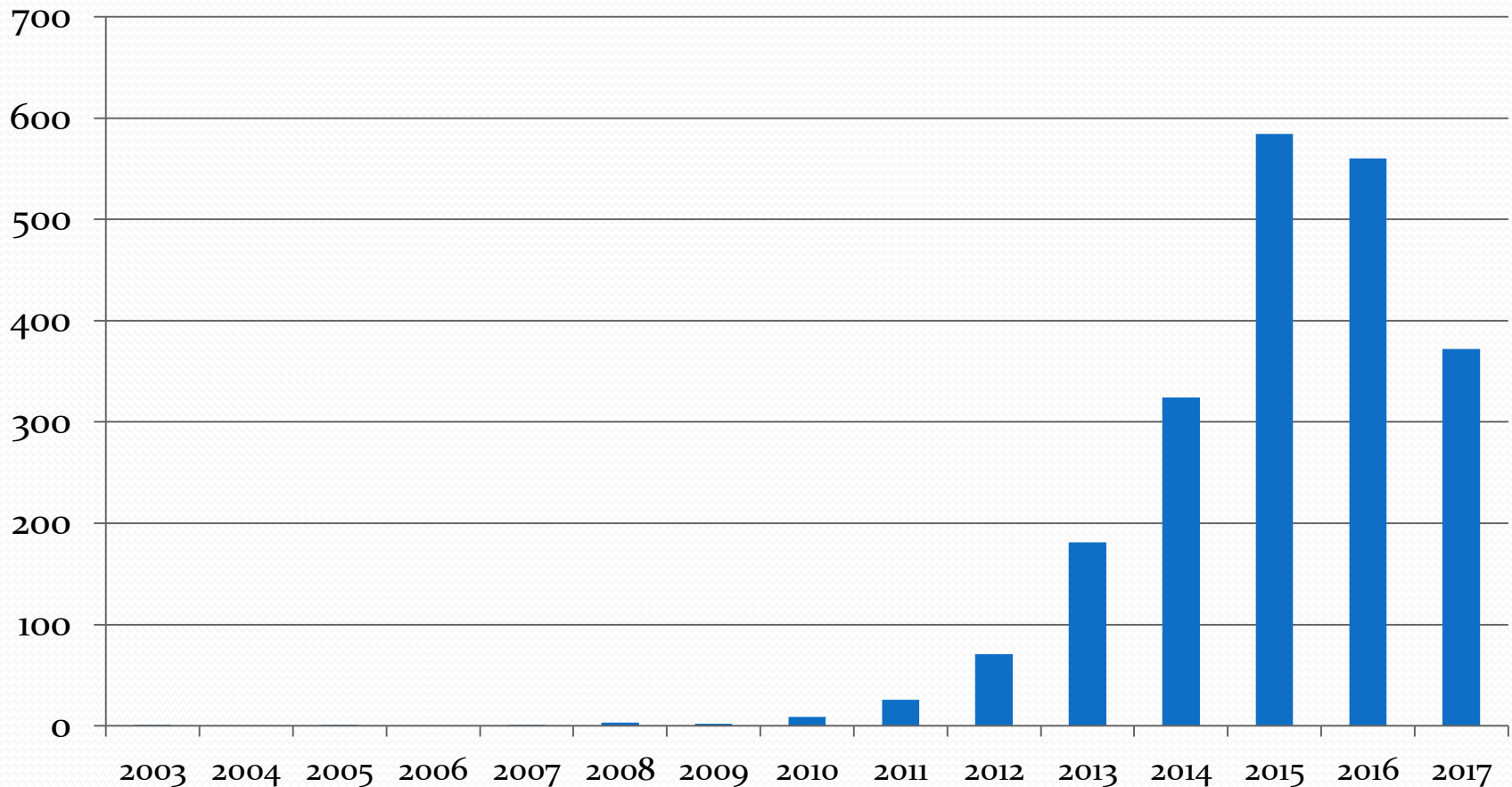
Vessels in Pacific Region (2017)

Vessel Type	Discharge Ballast	BWMS Onboard	Discharge+Treat
Bulk Carrier	1,027	326	287
Tanker	478	150	93
Container Ship	112	132	28
Roll-In Roll-Off	23	112	3
Cargo Ship	112	51	37
Cruise Ship	14	27	8
Other	175	13	6



BWMS Installation Date

(vessels visiting US in 2017)



Annual Reporting of BWMS (2017)

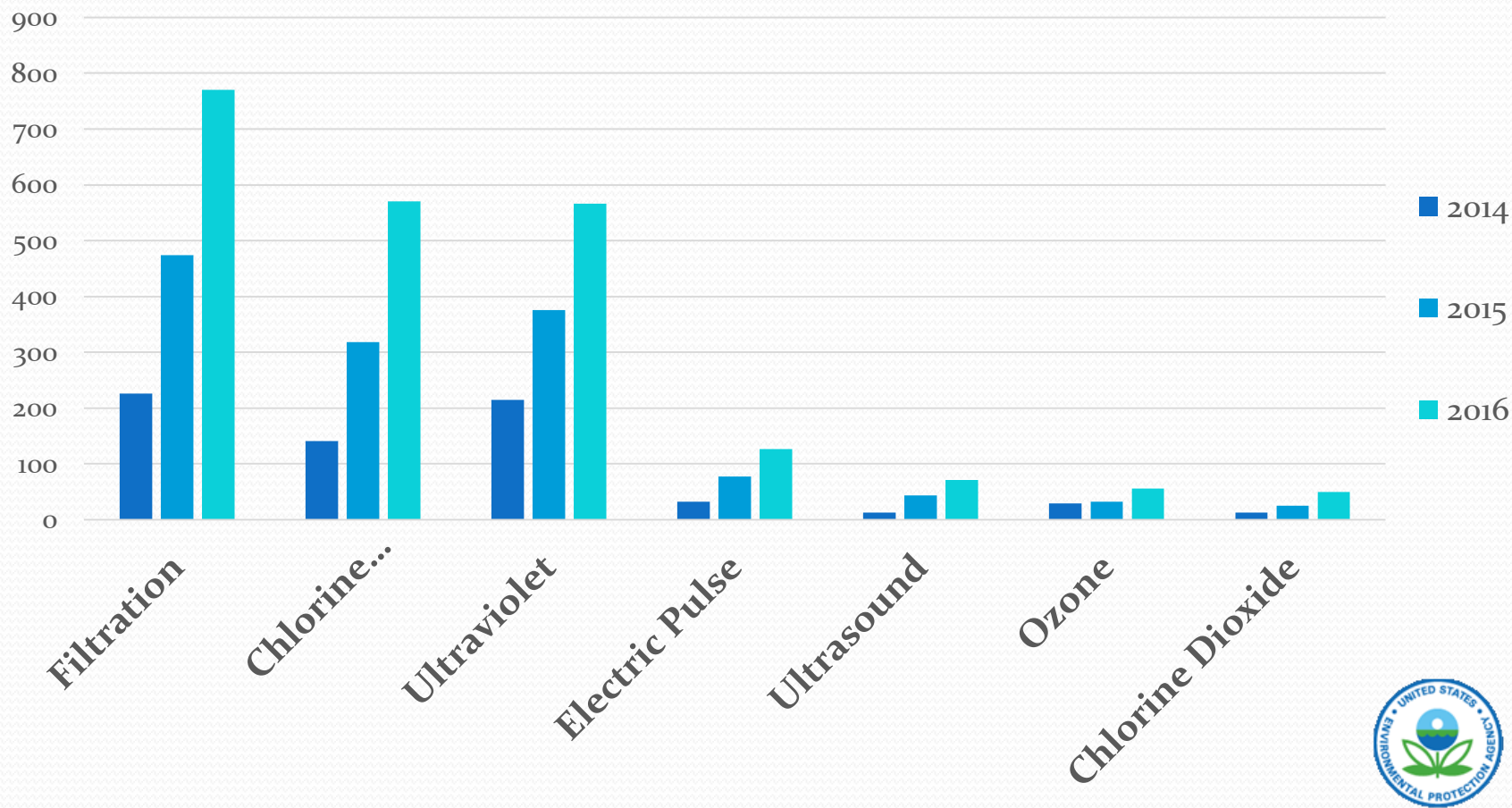
BWMS Mfr.	Tech	#	BWMS Mfr.	Tech	#	BWMS Mfr.	Tech	#
Techcross	EC/CI	397	Kuraray	EC/CI	37	MMC	UV	3
Panasia	UV	292	Wuxi	UV/Cycl	33	Shanghai	UV	3
Alfa Laval	UV	208	RWO	EC/CI+	29	Aqua Eng	EC/CI	2
JFE	EC/CI	180	Cosco	UV	27	Cathelco	UV	1
Qingdao	EC/CI	173	Erma First	EC/CI	17	Evoqua	EC/CI	1
Hyundai	EC/CI	115	Ecochlor	ClO ₂	16	Knutsen	UV	1
Samsung	EC/CI	82	Ocean Guard	Ec/CI	16	Mitsui	Filtr	1
SunRui	EC/CI	80	Wartsila	UV	12	Samgong	DeOx	1
Hyde	UV	79	De Nora	EC/CI	10	Samkun	UV	1
NK	Ozone	78	Mahle	UV	10	Toagooei	Various	1
Optimarin	UV	78	Bio UV	UV	8	Trojan	UV	1
Miura	UV	68	Jiangsu	DeOx	8			
OceanSaver	EC/CI	63	GEA	UV	6			

Green – USCG type-approved

Red – TA application submitted to USCG, decision pending



Ballast Water Treatment Systems (Annual Report Data)



Ballast Water Biological Monitoring (2014-17)

Parameter	# Vessels					# Samples			
	'14	'15	'16	'17		'14	'15	'16	'17
E. Coli	16	64	112	264		31	107	152	423
Enterococci	16	63	111	264		31	104	150	422
Heterotrophic Bacteria	16	63	111	263		31	104	155	422



Ballast Water Biological Monitoring (2014-17)

Analyte	Units	# Samples	# Detects	Exceed Limits	Max. Det. Value	Mean Det. Value
E. Coli	MPN/ 100 ml	386	146	NA	3,900	4
	cfu/ 100 ml	327	49	7 (2%)	1,800	6
Enterococci	MPN/ 100 ml	283	134	NA	24,000	7.4
	cfu/ 100 ml	424	87	6 (1%)	6,720	3
Heterotrophic Bacteria	MPN/ 100 ml	86	53	NA	259,000	199
	cfu/ 100 ml	624	381	NA	648,000	1,000



Ballast Water Biocide Monitoring (2014-17)

Parameter	# Vessels					# Samples			
	'14	'15	'16	'17		'14	'15	'16	'17
Alkylamines		1	6	3			1	6	8
Bromate	1	3	1	7		1	4	2	15
Bromoform	2	3	2	6		2	4	3	13
Chlorate		9	37	127			20	54	174
Chlorine dioxide	1	10	33	116		1	12	46	164
Chlorite		9	36	127			20	52	173
Haloacetic acid	2	9	34	133		2	20	51	181
Hydrogen peroxide				1					6
Menadione		1		1			1		6
Peracetic acid				1					6
pH			4	3				5	8
TRO	22	9	39	131		22	66	105	260
TTHM	2	9	35	131		2	20	53	162



Ballast Water Biocide Monitoring (2014-17)

Analyte	# Samples	# Detects	Exceed Limits	Max. Det. Value	Mean Det. Value
Chlorate	248	86	NA	190 mg/L	1 MG/l
Chlorine Dioxide	223	74	8 (3%)	20 mg/L	.02 mg/L
Chlorite	245	79	NA	74 mg/L	1 mg/L
Haloacetic acid	254	183	NA	171 mg/L	.034 mg/L
Peracetic acid	6	0	0	ND	ND
TRO	451	251	57 (13%)	500 mg/L	.05 mg/L
TTHM	247	175	NA	182 mg/L	.15 mg/L



Reported Ballast Water Noncompliance

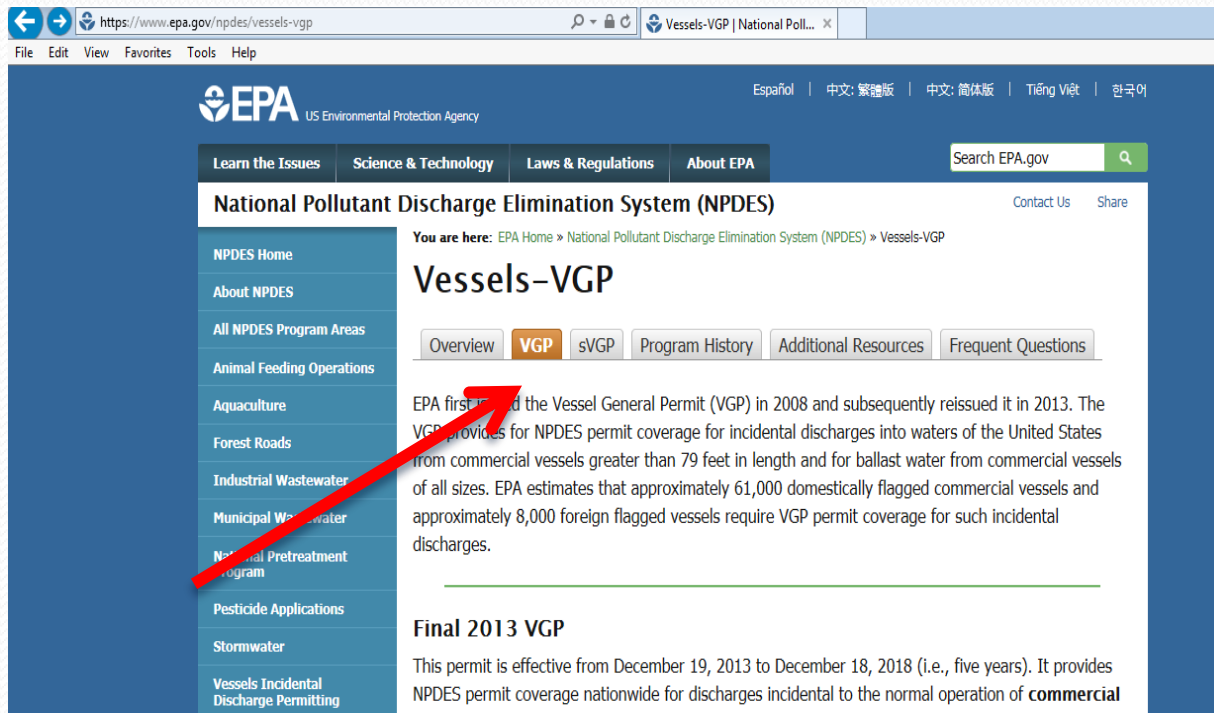
- Failure to monitor
- Monitoring values exceeded effluent limitations
- Failure to record de-ballasting correctly
- Sheen noticed in discharge
- Used wrong reporting form
- BWMP incomplete
- Exchange occurred within 200 NM of shore
- Failed to operate BWTS
- (Falsification of records)

* ~1% of vessels discharging ballast water in U.S. reported noncompliance with VGP ballast water requirements in 2014 and 2015.



EPA NPDES VGP Webpage

<https://www.epa.gov/npdes/vessels-vgp>



The screenshot shows the EPA website's NPDES VGP page. The browser address bar displays 'https://www.epa.gov/npdes/vessels-vgp'. The page header includes the EPA logo and navigation links for 'Learn the Issues', 'Science & Technology', 'Laws & Regulations', and 'About EPA'. A search bar is present. The main content area is titled 'National Pollutant Discharge Elimination System (NPDES)' and 'Vessels-VGP'. A red arrow points to the 'VGP' tab in the navigation menu. The page content describes the Vessel General Permit (VGP) and its effectiveness from December 19, 2013, to December 18, 2018.

National Pollutant Discharge Elimination System (NPDES)

Vessels-VGP

VGP

EPA first issued the Vessel General Permit (VGP) in 2008 and subsequently reissued it in 2013. The VGP provides for NPDES permit coverage for incidental discharges into waters of the United States from commercial vessels greater than 79 feet in length and for ballast water from commercial vessels of all sizes. EPA estimates that approximately 61,000 domestically flagged commercial vessels and approximately 8,000 foreign flagged vessels require VGP permit coverage for such incidental discharges.

Final 2013 VGP

This permit is effective from December 19, 2013 to December 18, 2018 (i.e., five years). It provides NPDES permit coverage nationwide for discharges incidental to the normal operation of **commercial**

Email Support

General VGP:

- VGP@epa.gov

eReporting:

- VGPeNOI@epa.gov



Questions

