

CIRCULAR

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Circular related to: –						The following circular becomes invalid:						
Application within CRS:												
D/Ut	Uq	Ar/AA	AF	AO	Tr	TB	TS	TE	Kr/KN	KI	Fr/F	Cr/C
✓	✓	✓			✓		✓		✓		✓	✓
RI		PU	ML	ST	ZD	ŠI	KO	SK	ZG			RV
✓		✓	✓	✓	✓	✓	✓					
Application outside CRS:												
- Shipowners /operators trading to USA												

On 28 March 2013, the US Environmental Protection Agency (**EPA**) signed the *Final National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Incidental to the Normal Operation of a Vessel* (Vessel General Permit or **VGP**).

The VGP authorizes discharges incidental to the normal operation of non-military and non-recreational vessels greater than or equal to 79 feet in length into waters of the US, as defined in 40 CFR 122.2, except as excluded by Part 6 of the permit. This includes inland waters and the territorial seas, defined in section 502(8) of the *Clean Water Act* (CWA), extending to three miles from the US coastal baseline.

The 2013 VGP replaced the 2008 VGP that expired on 19 December 2013 and remains effective for 5 years. The 2013 VGP is a new, separate permit from the 2008 VGP.

Shipowners and operators must complete a *Notice of Intent* (NOI) for this action.

On the US EPA website <http://cfpub.epa.gov/npdes/vessels/vgpermit.cfm> the complete text of the *Final 2013 Vessel General Permit (VGP)* and *Final 2013 VGP Fact Sheet* is available.

1. MAJOR CHANGES

The 2013 VGP contains some significant changes, and requirements for shipowners and operators:

- Specific language regarding adequate general training of the master, operator, person-in-charge, and crew members with respect to implementing the terms of the permit and responding to fuel spills and overflows;
- More stringent requirements for oil-to-sea interfaces;
- Numeric discharge standards and extensive monitoring for ballast water;
- Exhaust gas scrubber wash water discharge standards;
- Effluent monitoring requirements for bilge water, ballast water, gray water, and exhaust gas scrubber wash water.

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2. TRAINING REQUIREMENTS

According to section 2.1.6 of the VGP, all owner/operators of vessels must ensure that the master, operator, person-in-charge, and crew members who actively take part in the management of incidental discharges or who may affect those discharges are adequately trained in implementing the terms of this permit.

In addition, all owner/operators of vessels must ensure appropriate vessel personnel be trained in the procedures for responding to fuel spills and overflows, including notification of appropriate vessel personnel, emergency response agencies, and regulatory agencies.

This training need not be formal or accredited courses; however, it is the vessel owners/operators' responsibility to ensure these staff are given the necessary information to conduct shipboard activities in accordance with the terms of this permit.

According to section 2.2.3.1 of the VGP, as part of *Ballast Water Management Plans* under 2.2.3.2, a stand-alone training plan, or other record keeping documentation, owner/operators must maintain a written training plan describing the training to be provided and a record of the date of training provided to each person trained.

Persons required to be trained must be trained promptly upon installation of treatment technology and in the event of a significant change in ballast water treatment practices or technology.

For training requirements as applicable see also sections 2.2.5, 2.2.12, 4.2.11, 5.1.3, 5.2.3 and 5.5.4 of the 2013 VGP.

Vessel owners/operators must also meet all training-related record keeping requirements of Part 4.2 of the 2013 VGP.

3. REPORTING REQUIREMENTS

For vessels greater than or equal to 300 GT or with a ballast water holding capacity greater than 8 m³, a signed and certified, complete and accurate electronic *Notice of Intent* (NOI) (using EPA's *Electronic Notice of Intent* (eNOI) system, www.epa.gov/npdes/vessels/eNOI) is to be submitted no later than 12 December 2013 or seven days prior to a discharge into waters subject to the permit. Paper NOIs are to be submitted at least 30 days prior to discharge and will only be accepted if you receive a waiver under the following circumstances:

- The EPA has not yet implemented such electronic reporting;
- If the owner/operator's headquarters is physically located in a geographic area (i.e., zip code or census tract) that is identified as under-served for broadband internet access in the most recent report from the *Federal Communications Commission* and the vessel never travels to any areas with adequate broadband internet access; or
- If the vessel owner/operator has issues regarding available computer access or computer capability.

Additionally, each vessel is to submit an annual report for each year of active permit coverage. Vessels filing NOIs must submit annual reports as long as the NOI is active. Vessels completing a *Permit Authorization and Record of Inspection* (PARI) are covered as long as they operate in waters subject to this permit, provided they have signed and maintain a copy of the PARI form on board.

Annual reports must be completed each calendar year and submitted by 28 February of the following year (e.g., the 2014 annual report will be due by 28 February 2015).

Vessels will not be required to submit a separate 2013 annual report for any relevant information that may be applicable from 19 December 2013 through 31 December 2013. This period must be included in the annual report for the 2014.

All analytical monitoring results must be submitted to the EPA as part of the annual report. The annual report form is included in Appendix H of the 2013 VGP. An electronic version is available online (www.epa.gov/npdes/vessels/eNOI)

The annual report must be submitted electronically unless a waiver has been granted based on the criteria previously listed. More details about this are available in sections 1.4 to 1.15 of the 2013 VGP.

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4. EFFLUENT LIMITS & RELATED REQUIREMENTS FOR SPECIFIC DISCHARGE CATEGORIES

The 2013 VGP continues to regulate 26 specific discharges covered in the 2008 VGP. Most of the discharge requirements have not changed. Information on new discharge requirements is listed in the following sections as well as some information that may be useful to shipowners and operators.

4.1 Bilge water (see section 2.2.2 of the 2013 VGP)

Shipowners and operators of newbuild vessels (i.e., built after 19 December 2013) greater than 400 GT must sample and analyze their bilge water effluent once per year for oil and grease content. The monitoring can be conducted as part of the vessel's annual survey.

As an incentive for new oil pollution prevention equipment, the EPA includes a means for reducing bilge water monitoring.

If analytical results for oil and grease are less than 5 ppm for two consecutive years, it is not necessary to sample and analyze for the subsequent years of permit coverage if:

- The vessel uses an oily water separator (OWS) capable of meeting a 5 ppm oil and grease limit or you use an alarm which prevents the discharge of oil and grease above 5 ppm;
- The oil content monitor (OCM) is calibrated annually; and
- The OCM never reads above 5 ppm.

In the Clean Water Act (CWA) § 401 Certifications, Connecticut and New York prohibit the discharge of bilge water; Rhode Island requires the discharge of all bilge water prior to entering its waters.

4.2 Ballast Water (see section 2.2.3 of the 2013 VGP)

The 2013 VGP ballast water requirements now includes discharge limitations for ballast water and requires that discharges be in compliance with *US Coast Guard (USCG)* regulations in 33 CFR Part 151.

The EPA identifies the same means for complying with ballast water limits as the USCG. For vessels achieving ballast water limits through treatment, the EPA states that vessels must use a ballast water management system (BWMS) that has been shown to be effective.

The EPA considers systems shown to be effective if they have been type approved or have received alternative management system (AMS) acceptance by the USCG.

In addition to the discharge standards for organisms in ballast water, the 2013 VGP includes specific maximum ballast water effluent limits for residual biocides associated with a BWMS. The discharge from a BWMS may not exceed the instantaneous maximum limits for four specific biocides or residuals (chlorine dioxide, chlorine, ozone, peracetic acid, and hydrogen peroxide) as well as the EPA's Water Quality Criteria for any other biocide or derivative. These limitations are for active ingredients used in BWMS. If the BWMS does not use an active ingredient, the limits for biocides and residuals do not apply.

The 2013 VGP contains many best management practices (BMPs) for ships to follow and emphasizes the importance of training. The 2013 VGP prohibits the discharge of sediments from the cleaning of ballast tanks into the waters subject to the VGP as well as requiring other measures to reduce sediment intake. The 2013 VGP also includes mandatory BMPs for Lakers for which the definition was revised to be "existing bulk carriers that operate exclusively on the Laurentian Great Lakes, regardless of whether their operation is or is not beyond the Welland Canal".

The EPA includes an extra requirement for vessels using a BWMS. In addition to treatment, the vessel must conduct a ballast water exchange (BWE) or saltwater flushing (as applicable) if the vessel operates outside the Exclusive Economic Zone (EEZ), more than 200 nm from shore, and then enters the Great Lakes from the St. Lawrence Seaway System and has taken on ballast water that has a salinity of less than 18 parts per thousand from a coastal, estuarine, or freshwater ecosystem within the previous 30 days.

For vessels treating ballast water, the 2013 VGP also requires extensive monitoring of BWMS and ballast water discharges.

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The required monitoring includes:

- **Functionality;** The EPA identifies metrics for components of a BWMS that require monitoring at least once a month.
- **Equipment Calibration;** Sensors and other equipment must be calibrated annually or no less frequently than required by the sensor or other equipment manufacture.
- **Prescribed Indicator Organisms;** Small volume samples are to be collected and analyzed for three specific biological indicators. Monitoring frequency depends on the quality of data for the approval of the BWMS and the results from initial testing and varies from once per year to four times per year.
- **Biocides and Residuals;** Monitoring frequency depends on the quality of data for the approval of the BWMS and varies from two times per year to five times per year.

Thirteen states (Arizona, California, Connecticut, Hawaii, Illinois, Indiana, Maine, Michigan, Minnesota, New York, Ohio, Rhode Island and Wisconsin) include CWA § 401 Certifications for ballast water. For more information, consult the 2013 VGP for state-specific requirements.

Implementation schedule for the USCG ballast water treatment standard

	Vessel's ballast water capacity	Date constructed	Vessel's compliance date
New vessels	All	On or after 1 December 2013	On delivery
Existing vessels	1500 - 5000 m ³	Before 1 December 2013	First scheduled drydocking after 1 January 2014
	Less than 1500 m ³	Before 1 December 2013	First scheduled drydocking after 1 January 2016
	Greater than 5000 m ³		

All ships calling at US ports and intending to discharge ballast water must either carry out exchange or treatment, in addition to fouling and sediment management. The exchange of ballast water will only be allowed until the implementation deadlines for treatment systems. A third option is to use potable water (from the US public water system) and in such case the ballast tanks need to be cleaned and sediments removed beforehand.

In the case of an emergency or malfunction of the treatment system, the USCG may allow the use of ballast water exchange as a contingency.

Treatment must be done using either a USCG type-approved system or a system type approved by another Administration which the USCG has accepted. The USCG treatment discharge standard is the same as the IMO Ballast Water Management Convention D-2 Standard.

Ballast water treatment system - type approval by the USCG

- The BWM system manufacturer must apply to the USCG for approval.
- The manufacturer must ensure that the equipment is tested by an independent laboratory
- The equipment must be constructed in accordance with 46 CFR Part 162.
- The equipment must be tested according to the requirements of the ETV protocol (Environmental Technology Verification).

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4.3 Antifouling Hull Coatings/Hull Coating Leachate (*see section 2.2.4 of the 2013 VGP*)

The 2013 VGP contains a limitation on the tin content in coatings. Catalysts in coatings may contain organotin compounds other than tributyltin (TBT) (e.g., dibutyltin). The dry paint is not to include more than 2,500 mg total tin per kilogram. Furthermore, coatings with such compounds are not to be designed to slough or otherwise peel from the vessel hull.

Shipowner/operator should consult the manufacturer of hull coating regarding the tin content in applied hull coatings.

The 2013 VGP also contains restrictions on the use of copper-based antifoulant paints in copper-impaired ports and harbors, including Shelter Island Yacht Basin in San Diego, California and waters in and around the ports of Los Angeles and Long Beach. A complete list of copper-impaired waters may be found at www.epa.gov/npdes/vessels.

4.4 Cathodic Protection (*see section 2.2.7 of the 2013 VGP*)

Sacrificial anodes must not be used more than necessary to adequately prevent corrosion of the vessel's hull, sea chest, rudder, and other exposed areas of the vessel.

Vessel operators must appropriately clean and/or replace these anodes during periods of maintenance (such as drydocking), so that release of these metals to waters is minimized.

Furthermore, when feasible, sacrificial anodes should be flush-fitted to the hull, or vessel operators must fill the space between the anode and hull backing to remove the potential for hotspots for fouling organisms.

Also, the 2013 VGP requires more specific documentation for a vessel's choice of anode. Vessels using sacrificial anodes as cathodic protection must choose the less toxic option, e.g. for vessels that spend the majority of time in saltwater, aluminum as less toxic should be used instead of zinc.

If zinc was selected, the vessel owner/operator must document why aluminum is not appropriate.

Aforementioned shall be applicable after the vessel's first drydocking after 19 December 2013.

4.5 Stern tubes, Rudders, Thrusters, Controllable Pitch Propellers and other Oil-to-Sea Interfaces (*see section 2.2.9 of the 2013 VGP*)

All vessels (not only new vessels) must use Environmentally Acceptable Lubricants (EALs) in all oil-to-sea interfaces, unless technically infeasible.

For purposes of the VGP, products meeting the permit's definition of being an EAL include those labeled by the following labeling programs: *Blue Angel, European Ecolabel, Nordic Swan, the Swedish Standards SS 155434 and 155470, Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) requirements, and EPA's Design for the Environment (DfE).*

The EPA defines "technically infeasible" for EALs as:

- No EAL approved for use in given application that meet manufacturer specifications for that equipment;
- Products which come pre-lubricated (e.g., wire ropes) which have no alternatives manufactured with EALs;
- Products meeting a manufacturer's specifications are not available within any port in which the vessel calls; or
- Change over and use of an EAL must wait until the vessel's next drydocking.

If it is technically infeasible to use an EAL in an oil-to-sea application, the vessel is to document the reason. Vessels are also to keep on board technical data sheets (i.e., material safety data sheets (MSDS)) for all EALs used in oil-to-sea interfaces onboard the vessel and document whether the EAL is registered under a labeling program (e.g., *DfE, Blue Angel*).

The understanding of the term "unless technically infeasible" is at present uncertain, but the following guidelines can be assumed to be acceptable under the VGP:

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1. If the ship has seals that are not compatible with any EALs, it can continue to use mineral oil until the next planned docking, when the seals are to be replaced.
2. If the original equipment manufacturer (OEM) has no recommended seal-EAL combination for its product, the use of EALs can be considered “technically infeasible”.
3. For new ships or when replacing equipment, the use of EALs is “technically infeasible” only if no manufacturer can deliver an EAL-lubricated product that is suitable for the purpose.
4. If the use of an EAL in an oil-to-sea interface is claimed to be “technically infeasible”, the ship must carry documentation to that effect. Such a document/statement written by the manufacturer or owner shall be not more than one year old and confirm the factual situation.

The EPA also recommends that all new build vessel operators endeavor to use seawater-based systems for their stern tube lubrication to eliminate the discharge of oil from these interfaces to the aquatic environment.

4.6 Gray water discharge (see section 2.2.15 of the 2013 VGP and section 2.2.15.1 for additional requirements for vessels operating in the Great Lakes)

The 2013 VGP includes monitoring requirements for gray water. Vessel owners/operators must collect and analyze two samples per year, at least 14 days apart. Samples must be taken for biochemical oxygen demand (BOD), fecal coliform, suspended solids, pH, and total residual chlorine. Vessel owners/operators may choose to conduct monitoring for escherichia coli in lieu of fecal coliform.

The EPA requires that sampling and testing shall be conducted according to 40 CFR Part 136. The results of analysis should be included as part of their annual report.

Nine states (California, Connecticut, Georgia, Hawaii, Maine, Minnesota, New Hampshire, Rhode Island and Washington) include CWA § 401 Certifications for gray water.

Six states (California, Connecticut, Maine, Michigan, New Hampshire and Washington) place specific prohibitions on the discharge of gray water.

For more information, consult the 2013 VGP for state-specific requirements.

4.7 Underwater Ship Husbandry & Hull Fouling Discharges (see section 2.2.23 of the 2013 VGP)

The EPA includes specific management measures that should be undertaken to minimize the transport of attached living organisms, such as selecting an appropriate anti-foulant management system and maintaining that system; inwater inspections, cleaning and maintenance of hulls; and thorough-hull and other niche area cleaning when a vessel is in drydock.

In the inspection requirements of the 2013 VGP, the EPA includes hard-to-reach areas of the vessel for permit compliance. For inspections, owners and operators need to be mindful of these requirements.

For vessels that use copper-based antifouling paint and clean the hull within 365 days of paint application in copperimpaired waters, the 2013 VGP requires that documentation must support a reason why early cleaning was necessary.

Six states (Arizona, California, Connecticut, Maine, Vermont and Washington) include CWA § 401 Certifications for underwater ship husbandry and hull fouling discharges. For more information, consult the 2013 VGP for state-specific requirements.

4.8 Exhaust Gas Scrubber Wash Water Discharge (see section 2.2.26 of the 2013 VGP)

The 2013 VGP includes numeric effluent limits for exhaust gas scrubber wash water discharge that are consistent with IMO guidelines. The 2013 VGP also requires continuous monitoring of pH, polycyclic aromatic hydrocarbons (PAH), turbidity and temperature.

In addition to the continuous monitoring, vessels must conduct sampling two times in the first year of permit coverage or system operation, at least 14 days apart, to demonstrate treatment equipment maintenance, probe accuracy and compliance with the VGP.

The first sampling event should be conducted as part of the system installation to ensure proper functioning. Samples must be collected for inlet water, wash water after the scrubber but before treatment, and discharge water.

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After the first year, sampling must occur once per calendar year for the same three samples locations and may be collected as part of the vessel's annual survey.

Samples are to be monitored and analyzed for dissolved and total metals, PAH, nitrite-nitrate and pH. The EPA lists the specific compounds which should be analyzed and recommended EPA methods for analysis. Records of sampling and analysis must be retained for three years.

In the CWA § 401 Certifications for exhaust gas scrubber wash water discharge, Connecticut prohibits the discharge of exhaust gas scrubber water and Hawaii requires reporting of specific information regarding the onboard treatment system.

5. SPECIFIC US STATE REQUIREMENTS

In addition to the *New Effluent Limits and Related Requirements for Specific Discharge Categories* the 2013 VGP contains specific state 401(c) requirements for 25 States.

For more information, consult the 2013 VGP for state-specific requirements.

6. CRS SURVEYORS INVOLVEMENT

According to section 4.1.4, shipowners/operators must make any dry-dock reports available to EPA or an authorized representative of EPA upon request.

Drydock Inspection Reports may be prepared by the class society or their flag administrations, or shipowner/operator.

For CRS classed ships, at shipowner/operator request CRS surveyor shall issue a Drydocking survey report on QF-PRP-04_{EPA-VGP} after verification of the following items:

1. The chain lockers and anchor chains have been cleaned and/or flushed in accordance with the requirements of Part 2.2.8 of the 2013 VGP (to remove sediment, living organisms, and other constituents of concern as applicable);
2. The vessel hull, propeller, rudder, thruster gratings, sea chest, and other surface and niche areas of the vessel have been inspected for attached living organisms and those organisms have been removed or neutralized;
3. Any antifoulant hull coatings have been applied, maintained, and removed consistent with the FIFRA* label if applicable; any exposed existing or any new coating does not contain biocides or toxics that are banned for use in the United States under the *Clean Hull Act* of 2010 (33 U.S.C. §§ 3801 et seq.);
4. All cathodic protection, anodes or dialectic coatings have been cleaned and/or replaced to reduce flaking;
5. All pollution control equipment is properly functioning (OWS, ODME);
6. Protective seals on stern tubes, rudders, thrusters, controllable pitch propellers and other oil-to-sea interfaces where fitted have been inspected and replaced if required, and documented evidence on use (or not use in case of technical infeasibility) of *Environmentally Acceptable Lubricants* (EALs) in all oil-to-sea interfaces verified.

* *Federal Insecticide, Fungicide, and Rodenticide Act* (FIFRA) in Section 3 states that no person in any State of the USA may distribute or sell to any person a pesticide that is not registered, unless exempted by section 3(b). *Code of Federal Regulations* 40 Parts 152 to 167 (40 CFR 152-167) establishes the requirements for product registration.

For any questions about the final VGP, please contact the EPA at: vgp@epa.gov

For any questions about CRS surveyors involvement, please contact yjeko.barac@crs.hr, (0 385) 21 408 166