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New Requirements for the Upcoming 2013 US EPA Vessel General Permit

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 replaces the 2008 VGP that expires on 19 December 2013 and remains effective for five 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.

Highlights of Significant 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 washwater discharge standards
- Effluent monitoring requirements for bilgewater, ballast water, graywater, and exhaust gas scrubber washwater

The 2013 VGP has some notable improvements. Shipowners and operators are only required to submit one annual report instead of the one-time report and annual noncompliance report for the 2008 VGP. Combined annual reports may be submitted for unmanned unpowered barges and vessels under 300 gross tons, if they meet specific criteria.

Reporting Requirements

For vessels greater than or equal to 300 gross tons or with a ballast water holding capacity greater than 8 m^3, a signed and certified, complete and accurate electronic NOI (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.

For vessels less than 300 gross tons or with a ballast water holding capacity less than or equal to 8 m^3, a complete Permit Authorization and Record of Inspection (PARI) form is to be kept on board the vessel at all times.

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 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.

Effluent Limits & Related Requirements for Specific Discharge Categories

The 2013 VGP continues to regulate 26 specific discharges covered in the 2008 VGP and includes a new discharge: fish hold effluent, if a permitting moratorium currently in effect expires on December 2014. 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.

Bilgewater (VGP 2.2.2)

Shipowners and operators of newbuild vessels (i.e., built after 19 December 2013) greater than 400 gross tons must sample and analyze their bilgewater 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 bilgewater 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 CWA § 401 Certifications, Connecticut and New York prohibit the discharge of bilgewater; Rhode Island requires the discharge of all bilgewater prior to entering its waters.

Ballast Water (VGP 2.2.3)

The EPA has significantly revised ballast water requirements. The 2013 VGP 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. In addition, the 2013 VGP provides an exemption for unmanned unpowered barges.

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. 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.

Antifouling Hull Coatings/Hull Coating Leachate (VGP 2.2.4)

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. You should consult the manufacturer of your hull coating regarding the tin content in your 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.

Cathodic Protection (VGP 2.2.7)

The 2013 VGP requires more specific documentation for a vessel's choice of anode. For vessels that spend the majority of time in fresh water, if aluminum or zinc was selected, the vessel owner/operator must document why magnesium is not appropriate. For vessels that spend the majority of time in saltwater, if zinc was selected, the vessel owner/operator must document why aluminum is not appropriate.

Controllable Pitch Propeller & Thruster Hydraulic Fluid and Other Oil-to-Sea Interfaces (VGP 2.2.9)

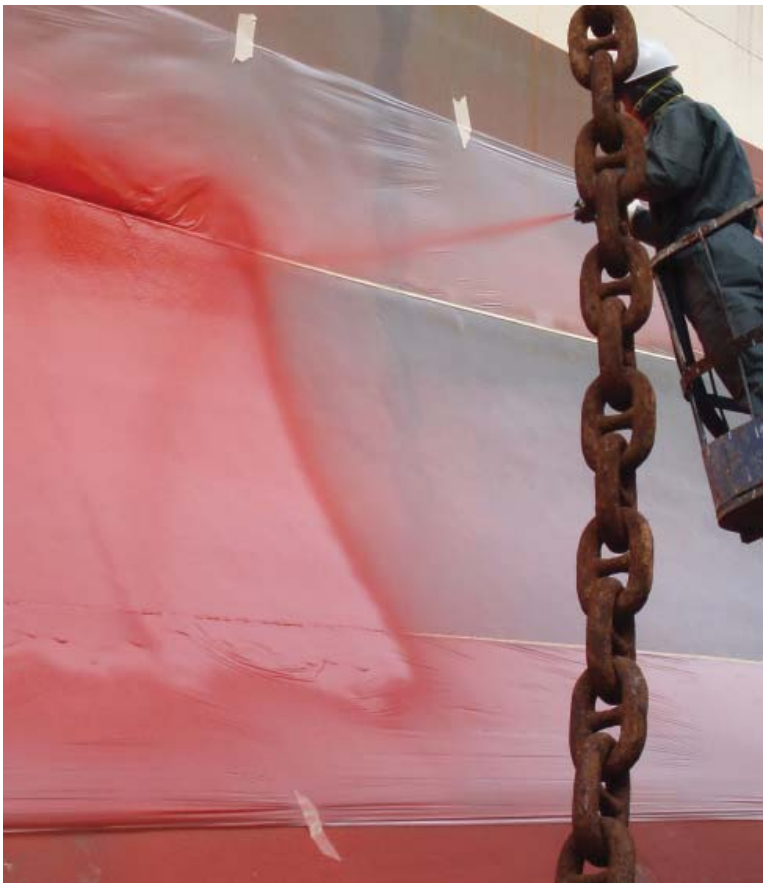
All vessels (not only new vessels) must use environmentally acceptable lubricants (EALs) in all oil-to-sea interfaces, unless technically infeasible. For purposes of the VGP, products meeting the permit's definition of being an EAL include those labeled by the following labeling programs: Blue Angel, 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 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 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.



Graywater (VGP 2.15)
The 2013 VGP includes monitoring requirements for graywater. 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 e. 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 graywater. Six states (California, Connecticut, Maine, Michigan, New Hampshire and Washingon) place specific prohibitions on the discharge of graywater. For more information, consult the 2013 VGP for state-specific requirements.

Underwater Ship Husbandry & Hull Fouling Discharges (VGP 2.23)
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; in-water 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 copper-impaired 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.

Exhaust Gas Scrubber Washwater Discharge (VGP 2.26)
The 2013 VGP includes numeric effluent limits for exhaust gas scrubber washwater 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, washwater after the scrubber but before treatment, and discharge water. 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 washwater discharge, Connecticut prohibits the discharge of exhaust gas scrubber water and Hawaii requires reporting of specific information regarding the onboard treatment system.

State-specific 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.

Vessel Inspections
The 2008 VGP included routine visual inspections, comprehensive annual vessel inspections, and drydock inspections. The 2013 VGP includes an option for extended unmanned period (EUP) inspections, if specific criteria are met. The EUP inspection may be conducted in lieu of routine visual inspections.