

## Discharges from Vessels Subject to Clean Water Act Permitting for the First Time

November 2008

Over the past several years, waste streams generated by vessels have come under increasing scrutiny by environmental regulators in the United States. In addition to recent initiatives targeting air emissions and oily-water separators, discharges of ballast water, bilge water, graywater, and 25 other waste streams will soon be regulated by the U.S. Environmental Protection Agency ("EPA") pursuant to the National Pollutant Discharge Elimination System ("NPDES") permitting regime of the federal Clean Water Act ("CWA").<sup>1</sup> Under the terms of a draft "general permit" set to be finalized December 19, 2008, EPA will require an estimated 90,000 U.S. and 10,000 foreign flagged vessels operating in U.S. waters<sup>2</sup> to comply with a range of best management, inspection, monitoring, reporting and recordkeeping practices for virtually every water-based waste stream generated by a ship.<sup>3</sup>

Although EPA has gone to great lengths to present these new requirements as being less stringent than mandating compliance with specific numeric parameters or performance standards, this new permitting regime creates profound risk management challenges for vessel owners and operators. The draft general permit essentially will enable EPA, an agency with virtually no maritime experience, to regulate conduct onboard commercial vessels trading in the U.S. as if they were land-based facilities. Moreover, some coastal states already are in the process of developing their own, more stringent, programs concerning some of the same discharges covered by the draft general permit, thereby potentially creating a patchwork of requirements that must be met as a vessel moves from port to port. Finally, the management practices prescribed for each waste stream also carry with them a host of mandatory self-inspection, monitoring, reporting and recordkeeping obligations that, at least in some instances, apply even when the vessel is operating outside U.S. waters. The extra-territorial nature of these requirements is reminiscent of the U.S. Coast Guard's recent U.S. MARPOL enforcement initiative, but the exposure to comparable enforcement efforts may be magnified by the sheer breadth of the new requirements. As a result, managing compliance with EPA's new permitting regime warrants the reexamination of current environmental management systems and procedures, manning, crew qualifications, and training programs.

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<sup>1</sup> Clean Water Act § 402, 33 U.S.C. § 1342.

<sup>2</sup> "Waters of the U.S." means certain inland waters and the territorial sea, which extends three miles from the baseline. *See* 40 C.F.R. § 122.2.

<sup>3</sup> Draft National Pollutant Discharge Elimination System (NPDES) General Permits for Discharges Incidental to the Normal Operation of a Vessel, 73 Fed. Reg. 34296 (June 17, 2008).

## *Background*

Historically, EPA exempted wastewater discharges incidental to the operation of a vessel from regulation under the CWA's NPDES permitting program. However, on March 30, 2005, in *Northwest Environmental Advocates v. United States Environmental Protection Agency*, the U.S. District Court for the Northern District of California ruled that the language of the CWA prohibited EPA from exempting incidental vessel discharges from the NPDES program.<sup>4</sup> The court subsequently ordered that the exemption be vacated as of September 30, 2008,<sup>5</sup> but later extended the date until December 19, 2008.<sup>6</sup> The court's drastic order left EPA with little time to craft a new regulatory scheme tailored to the unique challenges presented by vessels. Thus, while EPA's appeal of the district court's decision was pending in the U.S. Court of Appeals for the Ninth Circuit, in June 2008 EPA moved forward with the release of two draft general permits: one for recreational vessels<sup>7</sup> and one for commercial vessels (known as the "Draft NPDES Vessel General Permit" ("VGP")).<sup>8</sup> On July 23, 2008, the Ninth Circuit rejected EPA's appeal and upheld the district court's decision to vacate EPA's exemption of wastewater discharges incidental to the operation of a vessel from regulation under the NPDES permitting program.<sup>9</sup>

## *Coverage Under the VGP*

Once finalized, the VGP will cover both foreign flagged and U.S. flagged vessels longer than 79 feet. All eligible vessels are automatically authorized to discharge pursuant to the VGP upon finalization of the VGP regulations. Only those vessels greater than 300 registered tons or having the capacity to hold or discharge more than 8 cubic meters (2113 gallons) of ballast water must submit a Notice of Intent ("NOI") to EPA within six to nine months after the VGP is finalized in order to be able to continue discharging pursuant to the VGP. Once coverage is obtained, the VGP requires compliance with applicable water quality standards through the implementation of best management practices ("BMPs") (see below).

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<sup>4</sup> 2005 WL 756614 (N.D. Cal. Mar. 30, 2005).

<sup>5</sup> 2006 WL 2669042 (N.D. Cal. Sep. 18, 2006).

<sup>6</sup> *Id.* (N.D. Cal. Aug. 31, 2008) (order modifying date for vacatur).

<sup>7</sup> Upon issuance of the Ninth Circuit's ruling upholding the district court's decision in July 2008, the U.S. Congress intervened to statutorily exempt certain categories of vessels (including all recreation vessels) believed to be especially vulnerable to increased regulation, thereby obviating the need for the general permit for recreational vessels.

<sup>8</sup> Draft National Pollutant Discharge Elimination System (NPDES) General Permits for Discharges Incidental to the Normal Operation of a Vessel, 73 Fed. Reg. 34296 (June 17, 2008).

<sup>9</sup> *Northwest Environmental Advocates v. United States Environmental Protection Agency*, 537 F.3d 1006 (9th Cir. 2008).

28 Waste Streams

The VGP imposes technology-based numeric and non-numeric effluent limits (based on best professional judgment) and permits the discharge of 28 waste streams pursuant to specific BMPs.<sup>10</sup> The following is a list of the waste streams covered by the VGP and a summary of the BMPs required for each waste stream:

<p><b>Deck Washdown and Runoff</b> – Clear deck of debris/garbage prior to washdown and prior to departing port; Discharge must be free from floating solids, visible foam, and dispersants or surfactants; Minimize deck washdowns when in port; Maintain topside to minimize rust discharge.</p>	<p><b>Ballast Water</b> – Restrict discharge in U.S. waters to only those discharges essential to the operation of the vessel; Remove sediment from ballast tanks in mid-ocean or dry-dock; Avoid uptake of ballast water in areas of known pathogens; Vessels traveling in U.S. waters with ballast water taken within 200 nm of any shore after operating outside the Exclusive Economic Zone must: (1) conduct a mid-ocean ballast exchange; (2) retain all ballast water on board while in U.S. waters; or (3) use an alternative method approved by the U.S. Coast Guard. Vessels with un-pumpable ballast water must conduct saltwater flushing in waters more than 200 nm from shore and 200 meters deep. Vessels engaged in Pacific near-shore voyages must exchange ballast water in waters more than 50 nm from shore and 200 meters deep prior to discharge in U.S. waters.</p>
<p><b>Bilge Water</b> – Minimize discharge in waters within 3 nm of shore; Vessels greater than 400 registered tons may not discharge untreated bilge water in U.S. waters and may not discharge treated bilge water in federally protected waters.</p>	<p><b>Anti-Fouling Hull Coatings</b> – Consider use of hull coatings with the lowest biocide release rates; Coatings may not contain Tributyltin; If there is a preexisting coating of Tributyltin, it must be overcoated; If vessels spend time in ports impaired by copper, owners/operators must consider a non-copper coating.</p>
<p><b>Aqueous Film Forming Foam</b> – No discharge within 1 nm of federally protected waters.</p>	<p><b>Boiler/Economizer Blowdown</b> – No discharge within 1 nm of federally protected waters; Vessels more than 400 tons that leave the territorial sea at least once per week may not discharge in waters of the U.S.</p>
<p><b>Cathodic Protection</b> – Minimize the release of metals.</p>	<p><b>Chain Locker Effluent</b> - Wash chain when removing from the water; Clean, rinse, and pump the space beneath the chain locker prior to entering waters of the U.S.</p>
<p><b>Controllable Pitch Propeller Hydraulic Fluid</b> – Maintain propellers to prevent leaking of hydraulic oil. Use an oil boom if maintenance is not conducted in dry dock.</p>	<p><b>Distillation and Reverse Osmosis Brine</b> – Brine must not contact machinery/industrial equipment, hazardous materials, or waste.</p>
<p><b>Elevator Pit Effluent</b> – No discharge in U.S. waters.</p>	<p><b>Firemain Systems</b> – Minimize discharge in port; No discharge in federally protected waters.</p>

<sup>10</sup> Discharges of sewage, used oil, garbage, photo processing effluent, dry cleaning effluent, medical wastes, noxious liquid residues, and discharges covered by an existing NPDES permit are not covered by the VGP.

<b>Freshwater Layup</b> – Use only disinfectants necessary to prevent aquatic growth.	<b>Gas Turbine Wash Water</b> – No discharge in waters of the U.S.; Prevent commingling with bilge water.
<b>Graywater</b> – Minimize discharge in port and use non-toxic and phosphate-free soap in graywater; Vessels capable of storing graywater may not discharge in federally protected waters or nutrient-impaired waters. Vessels more than 400 tons traveling more than 1 nm from shore must discharge more than 1 nm from shore.	<b>Motor Gasoline and Compensating Discharge</b> – Oil concentrations must be less than 15 ppm; No discharge in federally protected waters.
<b>Non-Oily Machinery Wastewater</b> – Discharge must be free of oils and toxic additives.	<b>Refrigeration and Air Condensate</b> – No contact with oily or toxic materials.
<b>Rudder Bearing Lubrication</b> – Maintain in good operating condition to prevent leaking.	<b>Seawater Cooling overboard discharge</b> – When possible, discharge while underway.
<b>Seawater Piping Biofouling Prevention</b> – minimize biofouling chemicals; Use as little chlorine as possible; Remove fouling organisms and do not discharge such organisms in U.S. waters.	<b>Small Boat Engine Wet Exhaust</b> – Maintain vessel in good condition to reduce contribution of pollutants to wet exhaust.
<b>Sonar Dome</b> – No discharge is authorized in U.S. waters.	<b>Stern Tube Oily Discharge</b> – Maintain seals to prevent leaking; Use oil boom if maintenance is not conducted in dry dock.
<b>Underwater Ship Husbandry Discharges</b> – Minimize transport of living organisms; Minimize discharge of fouling organisms; Cleaning of copper paints must not result in visible plume; No cleaning in copper-impaired waters within 1 year of application of copper paint.	<b>Welldeck Discharges</b> – No discharge from washdown of gas turbine engines in waters of the U.S.; Discharges from washdown of equipment must be free of garbage and oil.
<b>Graywater Mixed with Sewage from Vessels</b> – Comply with other requirements of the VGP.	<b>Exhaust Gas Scrubber Washwater Discharge</b> – No discharge containing harmful quantities of oil; No discharge of sludge from gas scrubber washwater in U.S. waters.

### *State-Specific Requirements*

In addition to the BMPs summarized above, individual states have begun to leverage other components of the CWA to impose requirements significantly more stringent than current international standards. In particular, states struggling with the spread of non-native invasive species have sought to impose specific effluent standards on discharges of ballast water through the use of the water quality certification process set forth in Section 401 of the CWA. Under Section 401, states must certify that permits issued by any federal agency, such as the VGP issued by EPA, are consistent with state water quality standards. For example, the State of New York has proposed Section 401 conditions that would require discharges of ballast water to New York waters to meet numeric standards that are up to 1,000 times more stringent than international standards. New York also proposes to prohibit the discharge of graywater and bilge water to its waters.

### *Inspections, Monitoring, Reporting and Recordkeeping*

The VGP also requires routine, quarterly, and annual self-inspections of varying rigor. Routine inspections must consist of a visual inspection of all areas covered by the VGP, including but not limited to, cargo holds, boiler areas, machinery storage areas, and deck areas. The inspection must ensure that these areas are free of garbage, oil, or visible pollutants that could be discharged. At least once per week or once per voyage, whichever is more frequent, a visual inspection also must be conducted of the deck and cargo areas, and all areas where chemicals, oils, and cargo are stored. Quarterly inspections consist of sampling of those effluent streams that discharge below the water line. Comprehensive annual inspections must be conducted by the master or operator of the vessel or a trained marine or environmental engineer, and must include an inspection of the vessel hull, ballast water tanks, bilges, pumps, oily-water separator sensors, protective seals for lubrication and hydraulic oil, and visible pollution control measures. Medium and large cruise ships, large ferries, barges, oil/petroleum tankers, research vessels, rescue boats and vessels employing experimental ballast water treatment systems must comply with more rigorous standards, including analytical monitoring requirements and numeric effluent limits for certain waste streams. Corrective action assessments must be made if inspections reveal flaws that would result in non-compliance with the VGP; the draft permit requires minor adjustments to be made within two weeks after discovery, major adjustments to be made within three months, and major renovations to be made during the next available/scheduled dry dock opportunity.

All inspections and monitoring must be recorded in the ship's logbook or other record-keeping documentation, and signed by the person conducting the inspection. The VGP is notably silent on whether inspections occurring outside U.S. waters must be recorded. Additionally, the VGP requires the recording of BMP violations and of all discharges of several of the waste streams governed by the VGP when such discharges occur in U.S. waters. Importantly, however, the VGP is ambiguous as to whether it requires certain discharges, such as ballast water and aqueous film forming foam, to be recorded when the discharges occur outside U.S. waters. Similarly, vessels bound for the U.S. must record the origin, temperature, volume, and date of ballast water in tanks that are to be discharged in U.S. waters, even if the ballast water was taken on outside U.S. waters. The ship's logbook/recordkeeping documentation must be made available to EPA upon request, and all instances of noncompliance with the VGP must be reported to EPA at least once per year. In lieu of an annual report, the draft VGP requires owners/operators to submit a one-time report that contains basic information (*e.g.*, owner/operator, vessel name, size, flag state) about the vessel between the 30<sup>th</sup> month and 36<sup>th</sup> month after permit coverage.

For vessels involved in transfers of ownership and/or operation, the VGP program requires new owners and operators to submit a new NOI by the transfer date. Similarly, a Notice of Termination to terminate coverage under the VGP must be submitted within 30

days of: a new owner/operator assuming responsibility for the vessel; permanent cessation of operation of the vessel in U.S. waters; or permit coverage being obtained under an individual or alternative general permit. Importantly, these requirements may apply when there is just a change in the technical management because the VGP broadly defines "operator" as "a charterer by demise or **any other person, except the owner, who is responsible for the operation of the vessel**" (emphasis added).

### *Implications for the Regulated Community*

EPA's VGP presents a number of compliance challenges for vessel owners and operators, including the apparent lack of clarity in permit requirements, and potential inconsistencies with other existing federal and international regulatory instruments. In addition, failure to meet reporting and recordkeeping requirements expose owners and operators to enforcement under the paradigm established by the U.S. Department of Justice and U.S. Coast Guard for oily-water separators. Such an enforcement initiative could result in vessel owners, operators, and responsible corporate officers incurring civil penalties of up to \$25,000 per day for each violation or criminal penalties of \$50,000 per day for each violation and 3 years imprisonment for NPDES permit violations under the CWA's enforcement provisions.<sup>11</sup>

### **Lack of Clarity in Permit Requirements**

Many of the VGP requirements are general in nature and do not provide clear guidance as to what level of performance is required to achieve and maintain compliance. For example, Section 1.2.1 provides that VGP coverage extends to discharges incidental to the "normal operation of a vessel," yet the term "normal operation" is not defined. Some of the discharges covered by the VGP, such as underwater ship husbandry or unanticipated spills, are not generally considered within the maritime industry to be "normal operations." In addition, a number of the legally enforceable permit terms use language like "may," "should," and "some," which introduces significant ambiguity in understanding what constitutes compliance. For example, the draft VGP requires that ballast water exchange must be commenced "as early in the vessel voyage as possible," as long as the vessel is more than 200 nm from any shore. As a number of factors may influence whether an act is "possible" in a particular circumstance (*e.g.*, weather conditions, route/schedule, type of cargo onboard, operating conditions, crew logistics), vessel own-

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<sup>11</sup> 33 U.S.C. § 1319. In addition, consistent with the U.S. government's practice in prosecuting MARPOL cases over the past several years, application of the federal Alternative Fines Act ("AFA") provides a statutory mechanism through which the government may seek to recover criminal penalties well in excess of the statutory maximums set forth in the Clean Water Act, especially where intentional misconduct is alleged (such as the falsification of logs or other records required to be maintained under the VGP). For example, the AFA establishes the maximum fine for any felony committed by organizations as the greater of \$500,000 or twice the pecuniary gain to the defendant or loss to a person other than the defendant as the result of the felony. *See* 18 U.S.C. §§ 3571(c), (d).

ers/operators must base determinations of VGP-compliant behavior on fact-specific circumstances without any consistent regulatory parameters.

### **Conflicts with Existing Programs and Standards**

Vessels already operate under a variety of national, port state, flag state and international laws and regulations and it is not clear how the VGP will (or can) harmonize with these existing regulatory schemes. As one example, the use of water quality certification authorities under Section 401 of the CWA by New York and other states creates the possibility that vessels calling upon ports in multiple states could be subject to different, or even conflicting, requirements in each port visited. While the VGP proposes to regulate a number of discharges and areas already subject to existing federal<sup>12</sup> and international<sup>13</sup> regulatory instruments, Section 2.1.5 of the VGP requires compliance with these other statutes and regulations. Section 1.12 of the VGP states that it shall not be construed to conflict with other federal laws or regulations. However, certain provisions are likely to conflict with practices that are fully compliant with existing regulations. Provisions such as Section 1.12 therefore provide little relief.<sup>14</sup>

### **The Oily-Water Separator Criminal Enforcement Paradigm**

Over the past several years, the U.S. Coast Guard and U.S. Department of Justice have pursued vigorous and far reaching enforcement actions against vessel owners and operators whose crew submitted Oil Record Books and logbooks to the Coast Guard containing false information regarding the use and operation of the oily-water separators. In doing so, U.S. authorities relied on the criminal enforcement provisions of the CWA as well as false statement prohibitions under federal law to prosecute vessel owners, operators, and crew, in many instances imposing significant fines and prison sentences. It is possible that the government could use the same enforcement authority to prosecute vessel

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<sup>12</sup> Examples of federal laws/regulations regulating discharges also addressed in the VGP include: the National Invasive Species Act, the Act to Prevent Pollution from Ships (APPS), the Oil Pollution Act of 1990 (OPA), and various implementing regulations found in Chapters 33 and 46 of the Code of Federal Regulations.

<sup>13</sup> Examples of international instruments addressing discharges also targeted in the VGP include: the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), the International Convention on Oil Pollution, Preparedness, Response and Cooperation (OPRC 90), the International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS 01); the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWC 04); the International Convention for the Safety of Life at Sea (SOLAS 74); the International Safety Management Code (ISM 98); and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW 78).

<sup>14</sup> For example, International Maritime Organization stowage regulations (which are codified in U.S. law) may require certain dangerous goods to be carried on deck in order to segregate them from other cargo while the VGP may require those same goods to be stored below deck where they will not be exposed to ocean spray or precipitation.

owners and operators for the submission of logbooks containing false entries required to be made by the VGP, even if those entries were made outside of U.S. waters.

### *Recommendations*

It is expected that the final rule will be issued near the December 19, 2008 deadline. While the final rule is expected to closely resemble the proposed rule, the industry can anticipate some clarification (although not necessarily satisfaction) on the many questions raised during the comment period.

Even though the deadline for filing the NOI is six to nine months after the finalization of the VGP, vessel owners and operators would be well advised to begin developing comprehensive compliance strategies to satisfy the VGP requirements. To that end, we offer the following recommendations:

- 1) Review the proposed draft VGP, the NOI and the various guidance documents issued by EPA, including the Proposed VGP Fact Sheet (available on the EPA docket at [www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=EPA-HQ-OW-2008-0055](http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=EPA-HQ-OW-2008-0055)), preferably in a process that integrates shore-side and sea-going input. If in doubt, consult experts with experience in compliance and enforcement issues related to EPA water quality regulations. The NOI is the first step, but it is just the first step, and do not overlook additional state requirements;
- 2) Develop an internal calendaring system of key dates and time frames applicable to the inspection/monitoring/reporting/recordkeeping requirements; integrate these activities into an existing environmental management system;
- 3) Assess exposure of fleet on a vessel specific basis (*e.g.*, determine which of the 28 waste streams are generated by each vessel and in what volumes, the frequency of each vessel's U.S. port calls, and evaluate opportunities to eliminate one or more waste streams or vessels operating in U.S. waters);
- 4) Integrate responsibilities and functions for implementing the new regulations within the framework of existing ISM/Safety & Environmental Management Systems; this presumes an assessment of the impact of the VGP on training, manning levels, crew qualifications, and operational procedures;
- 5) Augment, or if necessary develop, verifiable knowledge management systems to help shore-side staff mitigate the added risk created by increased inspections and record-keeping requirements and to help sea-going personnel meet the taxing demands of these new regulations; and

This memorandum is intended only as a general discussion of these issues. It is not considered to be legal advice. We would be pleased to provide additional details or advice about specific situations. For additional information on this important topic, please feel free to call upon your Dewey & LeBoeuf relationship partner.

- 6) Build cultural awareness and capability that can withstand the level of scrutiny characteristic of U.S. MARPOL enforcement.

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