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Incidental discharges from small commercial vessels

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Introduction

After a federal court directed the Environmental Protection Agency (EPA) to regulate discharges incidental to normal operation of vessels under the National Pollutant Discharge Elimination System (NPDES) program of the Federal Water Pollution Control Act (FWPCA), Congress promptly adopted a statute (Public Law 110-299) establishing a two-year moratorium on regulation of most such discharges from commercial vessels less than 79 feet in length and from commercial fishing vessels regardless of length. The legislation also directed the EPA to conduct a study to evaluate the impacts of: (1) any discharge of effluent from properly functioning marine engines; (2) any discharge of laundry, shower, and galley sink wastes; and (3) any other discharge incidental to the normal operation of a covered vessel.

The EPA has now completed a draft report to Congress summarizing its study. Comments on the 572-page draft report should be submitted to the EPA within 30 days after official notice of release of the draft report is published in the Federal Register. Such publication has not occurred as of this writing, but is expected any day. Due to the potentially wide-ranging impact of the study, the report should be reviewed by the owners and operators of all small commercial vessels and all commercial fishing vessels.

EPA sampling of discharges

Review of US Coast Guard records indicates that there are approximately 140,000 vessels subject to the two-year moratorium. About half of these are commercial fishing vessels, while the remainder are distributed among a variety of classes, including but not limited to passenger vessels, utility vessels (tow boats, offshore supply vessels, etc.), and barges.

The EPA sampled wastewater discharges and gathered shipboard process information from 61 vessels in nine vessel classes. In all, the EPA sampled nine different types of discharges, including bilgewater, stern tube packing gland effluent, deck runoff/washdown, fish hold effluent, and graywater. The samples were analyzed for a variety of pollutants, including biochemical oxygen demand, total suspended solids, residual chlorine, oil and grease, nutrients,

total and dissolved metals, volatile and semivolatile organic compounds, nonylphenols (surfactants), and pathogen indicators (e.g., *E. coli* and fecal coliforms).

Initial evaluation of environmental impacts

Using the results of the sampling, the EPA modeled a large hypothetical harbor to evaluate the environmental impacts from the various types of discharges. The screening-level model indicated that the discharges would not, in themselves, exceed the aquatic life or human health National Recommended Water Quality Criteria (NRWQC). However, the model did not account for background loadings (i.e., the current condition of the water due to other circumstances). Certain pollutants, such as total arsenic and dissolved copper, are more likely to contribute to water quality criterion being exceeded under real-world conditions in large-scale water bodies. Additionally, many pollutants present in vessel discharges were at concentrations that exceed an NRWQC at end of pipe. Therefore, those discharges have the potential to contribute to an environmental effect in the receiving water on a more localized scale.

Like an individual house in an urban watershed, most individual vessels have only a minimal environmental impact. As in urban areas, however, the impacts caused by these vessels are potentially significant where there is high vessel concentration, low water circulation, or there are environmentally stressed water bodies. The EPA opined that targeted reduction of certain discharges or pollutants in discharges from these vessels in waters sensitive to the introduction of pollutants may result in significant environmental benefits to those waters.

Significant pollutants

Total arsenic and dissolved copper are identified as the two most significant pollutants discharged by covered vessels. Due to the quantities involved, discharges of fish hold effluent can also significantly degrade the quality of the receiving water body. Such effluent often has biological oxygen demand and chemical oxygen demand concentrations that are several times higher than concentrations typically measured in raw domestic sewage. Studies have shown that leaching of copper from antifouling hull coatings used on recreational boats is a major source of copper pollution in several large boat basins in Southern California. Such copper leaching has created documented water quality concerns in areas such as Chesapeake Bay, Port Canaveral, and several harbors in Washington State. Similar antifouling hull coatings are used on many small commercial vessels.

Initial exclusion of incidental discharges from NPDES program

Vessels have been discharging liquids and other material into the surrounding waters as a routine practice since before they carried propulsion machinery and tanks for ballast water. In 1972, Congress adopted significant amendments to the Federal Water Pollution Control Act (FWPCA), also known as the Clean Water Act (CWA). Among its various provisions, the FWPCA amendments established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants for which discharge was not otherwise

prohibited. Shortly before the bill was enacted into law, Representative Robert E. Jones, Jr. (D-AL), Chairman of the Conference Committee that crafted the bill, stated on the record that the Conference Committee “would not expect the Administrator to require permits to be obtained for any discharges from properly functioning marine engines.”

When, in 1973, the EPA promulgated the final rule implementing the NPDES, the agency excluded from the NPDES requirements “any discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel.” Although ballast water discharges were not specifically mentioned in the regulation, from the beginning they were included within its ambit. In the preamble to the final rule, the EPA explained the incidental discharge provision as follows: “Most discharges from vessels to inland waters are now clearly excluded from the permit requirements. This type of discharge generally causes little pollution and exclusion of vessel wastes from the permit requirements will reduce administrative costs drastically.” The exclusion of such incidental discharges from vessels remained in effect, and relatively unchanged, for years.

Litigation

In 1999, several environmental advocacy groups petitioned the EPA to regulate ballast water discharges under the NPDES program. The petition was denied, with the EPA stating, among other things, that subsequent to the enactment of the 1972 FWPCA amendments, Congress had charged the US Coast Guard with regulation of ballast water discharges.

The environmental advocacy groups brought suit against the EPA, contending that the EPA rule excluding discharges incidental to the normal operation of a vessel was contrary to the statute and that the denial of the 1999 petition was improper. On cross motions for summary judgment, the Federal District Court for the Northern District of California ruled in favor of the environmental advocacy groups and held that the incidental discharge regulation was in excess of the agency’s authority. After a second hearing, the court ruled that the incidental discharge exclusion was to be vacated as of September 30, 2008 (this was subsequently extended to December 19, 2008, and then to February 6, 2009). On June 21, 2007, the EPA issued a notice stating that it had begun the process of compliance with the court order. Contemporaneously, the decision was appealed to the US Court of Appeals for the Ninth Circuit, which ultimately affirmed the lower court ruling.

VGP program for large commercial vessels

On June 17, 2008, the EPA published in the Federal Register a notice stating that each of its ten Regions proposed to issue Vessel General Permits (VGPs) under the NPDES program to commercial and recreational vessels greater than or equal to 79 feet in length to cover discharges incidental to the normal operation of those vessels. While smaller vessels were originally to be included in the overall permit program, recreational vessels were exempted by subsequently adopted legislation and small commercial vessels were provided a two-year moratorium while

the EPA conducted the study discussed in this article. The NPDES VGP program for larger commercial vessels was established by means of an EPA notice published in the Federal Register on December 29, 2008. That program came into effect on February 6, 2009. Among other things, the VGP program imposes best management practice (BMP) requirements on 26 vessel waste streams, ranging from ballast water to elevator pit effluent. Many of these 26 waste streams are not found on small commercial vessels, but, as noted in the draft study, there are a number of waste streams that attracted the EPA's attention.

What next?

Assuming that there are no major changes in the draft study before it is submitted to Congress, it remains unclear where the EPA and Congress are headed. The two-year moratorium expires on July 31, 2010. While the NPDES program will theoretically apply to commercial vessels less than 79 feet in length and to commercial fishing vessels regardless of length as of that date, those vessels are not addressed in the current VGP. It is doubtful that the EPA will take enforcement action regarding discharges from these small vessels until a program specially addressing them is developed. Congress, if it acts at all, may well extend the moratorium until the EPA can resolve the issue. One should expect that the small commercial vessel discharge permitting program developed by the EPA will be more targeted than the broad brush approach found in the current VGP program. Another unresolved issue is what measures the various state and tribal governments may adopt under the NPDES program. Some of those governments utilized a provision in the NPDES program to impose additional requirements on large vessels operating in their waters. It could happen again with regard to small commercial vessels. In summation, the ultimate impact of the NPDES program on small commercial vessels is unknown, but it can be expected that this EPA study, when finalized, will be a major factor. If you are the owner or operator of a covered vessel or otherwise concerned about those discharges, the draft study deserves your attention.