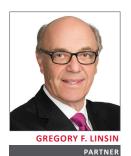
## Environmental Compliance Aboard Commercial Ships: Electronic Recordkeeping Is Overdue

BY GREGORY F. LINSIN AND KIERSTAN L. CARLSON





**Environmental laws and regulations** in the United States impose substantial recordkeeping and reporting obligations on regulated industries. These requirements are designed to document a company's compliance with the requirements and limitations established by the regulatory scheme as well as any applicable environmental permits. Regulated companies also are required to maintain their compliance documentation and to submit periodic comprehensive reports to regulators detailing their compliance with environmental standards. These records are used by

the Environmental Protection Agency ("EPA") and the delegated state regulatory agencies to monitor compliance and, if permit exceedances or irregularities in the compliance records are detected, to evaluate the need for enforcement actions.

These substantial recordkeeping and reporting requirements were particularly onerous on both industry

and government, in part because records historically were required to be maintained and submitted in hard copy, which presented challenges inherent in managing enormous volumes of paper. Until recently, the U.S. Department of Justice ("DOJ") and the EPA have resisted transitioning to electronic recordkeeping systems for environmental compliance data. This resistance was rooted in concerns about the reliability and security of electronic reporting (e.g., the government wanted assurance that data submitted by private parties had not been manipulated and that the government's ability to verify that the records were prepared and

signed by a responsible corporate representative remained intact). Nevertheless, in the last few years and in light of the enhanced reliability of electronic information systems, the EPA decided to enter the 21st century: 1) the agency has implemented two initiatives, Next Generation Compliance and E-Enterprise, which promote electronic recordkeeping and reporting, the use of technology to monitor compliance, and electronic data sharing, and 2) the agency has moved to electronic reporting under the Clean Water Act ("CWA") and other environmental laws. Central to these initiatives was a goal to allow both regulated entities and the government to identify and address potential violations quickly through more streamlined monitoring.

Despite these advances by the EPA for U.S. land-based industries, little has been done to modernize environmental recordkeeping and reporting requirements for the maritime industry. MARPOL, the principal maritime environmental treaty, requires commercial ships to maintain a number

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of logbooks and other documentation to record and verify the vessel's compliance with a range of operational environmental requirements.

These include waste oil storage and disposal, air emissions

controls, and garbage/plastics management. With respect to waste oil, MARPOL and its implementing U.S. statute, the Act to Prevent Pollution from Ships ("APPS"), require vessels to maintain a hard-copy Oil Record Book ("ORB") in which the ship's engineers must record and verify all transfers and discharges of oily waste. ORBs covering a period of three years must be available for inspection by port state control authorities, including the U.S. Coast Guard ("USCG"). Therefore, any errors or omissions in an ORB can give rise to potential false records charges, either under MARPOL or 18 U.S.C. § 1001.

Based largely on errors or omissions detected in ORBs, the DOJ pursues 10–15 criminal MARPOL enforcement cases a year, nearly all of which include at least one false ORB count. These cases can result in substantial criminal fines against ship owners and operators, and/or imprisonment of top-ranking ship officers. They also have substantial negative commercial consequences for the vessel owners and operators.

Most maritime companies are dedicated to compliance with MARPOL requirements, both because they are committed to responsible stewardship of the marine environment on which their businesses rely and because the immediate and long-term financial and reputational consequences of a MARPOL violation can be crippling. Yet, for many years, responsible vessel owners and operators have struggled to achieve consistent compliance on their vessels, due in large part to the challenges inherent in maintaining effective, real-time oversight of shipboard compliance activities on ships that trade all over the globe.

Trend toward E-ORBs

A recent industry trend toward adoption of electronic ORBs and related tank sounding records has the potential to substantially improve the ability of vessel owners and technical managers to monitor environmental compliance aboard their ships. Several flag administrations now permit ships sailing under their flags to use "e-ORBs." Led primarily by Liberia, several flags, including the Marshall Islands, Cyprus, and the Bahamas, have authorized the use of e-ORBs. These authorizations are not without restriction. Collectively, the authorizations contain data preservation requirements; mandate that ships retain printed copies of e-ORB entries for a certain time period, and electronically stamp and verify such entries; and require e-ORB software to be approved by the flag state prior to use. But, they

nevertheless will provide a number of operational benefits to shipping companies. Additionally, e-ORBs are specifically designed to reduce minor errors such as missing entries, as well as to allow shoreside personnel to detect discrepancies in log entries in near real-time, thus enabling them to correct or mitigate potential non-compliant operations.

The IMO is working to issue formal guidance and amendments to MARPOL on the use of e-ORBs and other MARPOL logbooks by 2019. As of October 2016, the IMO's Marine Environment Protection Committee ("MEPC") had developed draft "Guidance for the Use of Electronic Record Books under MARPOL," which addresses compliance considerations for e-ORBs, such as 1) security and verification of entries, 2) data storage and preservation, and 3) the need for e-ORB software to meet company audit requirements. The MEPC's Sub-Committee on Pollution Prevention and Response ("PPR") subsequently met to consider the feasibility of transitioning to electronic MARPOL record books and to begin to develop draft amendments to MARPOL allowing electronic record books.

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In February 2017, the PPR provided a report to the MEPC, noting general support for the use of electronic record books. Unfortunately, the PPR's report also recited "concerns" raised by the United States regarding the "safety, security, protection, and availability" of electronic logbooks, and the United States' position that countries should not be required to accept electronic logbooks prior to formal amendments to MARPOL.

In a report issued in July 2017, the MEPC announced that it approved the PPR report. Subsequently, following various IMO meetings in the last quarter of 2017, the PPR was directed to take two major steps forward with respect to electronic recordkeeping on vessels. First, the PPR was charged with drafting amendments to MARPOL that would permit the use of certain forms of electronic record books so long as such records have been approved by the flag administration under which a vessel is registered. Second, the PPR was instructed to finalize non-mandatory guidelines on the use of electronic records, presumably to include the "Guidance for the Use of Electronic Record Books under MARPOL" referenced above. These items were discussed at a PPR meeting held on February 5–9, 2018, and the PPR's recommendations are under consideration by the MEPC.

Although most IMO member states support these reasonable advances toward electronic recordkeeping, the United States has opposed the approach being taken by the PPR and MEPC. The United States' primary concern appears to be that electronic record books, if permitted, should be subject to mandatory IMO guidelines, and the guidelines should

be uniformly implemented by flag states. But these concerns ignore the immediate and positive impact the use of electronic record books, particularly e-ORBs, will have on the industry's ability to more closely monitor compliance aboard vessels at sea. It is regrettable that, instead of taking the lead at the IMO to modernize recordkeeping aboard commercial vessels in a way that will surely enhance environmental compliance, the United States is effectively dragging its anchor.

## E-ORBs as a Compliance Mechanism

Even though the United States has not approved and, seemingly will not yet accept, e-ORBs, ship owners and operators nevertheless can increase MARPOL compliance simply by utilizing e-ORB software and transitioning other ship records to an electronic format. By doing so, companies can monitor and analyze ORB entries in real-time rather than waiting for periodic shipboard audits. The real-time verification of ORB entries by shoreside technical staff, especially when coupled with the review of other key data, such as tank sounding records, will improve shipboard compliance and help companies more readily detect and address non-compliant activities. It also will assist companies in determining whether a voluntary disclosure is needed, which in turn, will facilitate cooperation between companies and regulators, and reduce enforcement risks for responsible vessel owners and operators. ■ — ©2018 BLANK ROME LLP

 See Subcomm. on Pollution Prevention and Response, Use of Elec. Record Books: Outcome of MEPC 69, PPR 4/16 (Oct. 12, 2016) (draft guidance provided at Annex I). The guidance relates to e-ORBs, as well as other MARPOL-required logbooks, such as garbage record books.

