

Environmental and Land Use ADVISORY

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Shippers Chart Uncertain Waters with Maritime Green House Gas Regulations

Companies Advised to Understand Technical Aspects of Emission Measurement

The maritime shipping industry is facing increasing pressure to limit its contribution to global GHG emissions. According to a recent study, oceangoing vessels are responsible for at least three percent of global GHG emissions, greater than the percentage of GHG emissions from any country except the five largest emitters.¹ At the international level, limits on GHG emissions from ships are being negotiated through a specialized agency of the United Nations known as the International Maritime Organization (IMO). The IMO met October 6-10, 2008, and, while no regulatory consensus was reached, the IMO made significant progress toward establishing baselines for GHG emissions from ships. Companies would be well advised to become familiar with these baseline methodologies, as they present opportunities for shipping companies to actively address emissions in advance of regulations and to market themselves to a customer base that is growing increasingly concerned about carbon emissions from their supply chain. Companies should also be aware of regulations already in effect in certain California ports that may affect vessel operations.

IMO Negotiations

The IMO has stated that it is working towards a “binding instrument” for GHG reductions to be presented at the 2009 climate summit in Copenhagen, Denmark. However, there are several issues that may stand in the way of the signing of an international agreement that incorporates mandatory GHG reduction measures by that date.

The most significant sticking point is a disagreement among IMO membership as to whether GHG controls should apply equally to all ships, regardless of their flag state, or only to those ships flying the flags of more developed nations that are signatories to the United Nations Framework Convention on Climate Change (so-called “Annex I” countries). The use of market-based regulatory instruments, such as a cap-and-trade system, is also a matter of controversy among IMO members.

It remains to be seen whether the IMO’s internal disagreements, which were sufficiently strong to derail discussions at the October meeting, will prove intractable. Regardless, they are likely to make it difficult for the IMO to reach consensus on a GHG regulatory scheme in time for the 2009 Copenhagen summit.

¹ Janea Scott and Hilary Sinnamon, *Floating Smokestacks: A Call for Action to Clean Up Marine Shipping Pollution* (2008) [hereinafter “Floating Smokestacks”] at 5-6.

Progress on Baseline Methodologies for GHGs Emissions from Ships

While agreement on emissions limits may not be reached any time soon, the IMO's Working Group on GHG Emissions from Ships (the "GHG Working Group") is making significant progress toward the development of baseline measurements of CO2 emissions. The working group met in special session in Norway in June 2008 to develop a "technical basis" for GHG reduction mechanisms that might be part of a future IMO regulatory regime. The working group's discussions included both policy alternatives, such as emissions trading and a global levy on maritime bunker fuel, as well as the refinement of a voluntary "**CO2 Operational Index**" to measure GHG emissions from ship operations and a mandatory "**CO2 Design Index**," a proposed methodology for determining the expected fuel efficiency (and thus, the GHG footprint) of new ships at the design stage. Significant progress on the development of these standards was made at the October 2008 meeting.

Understanding and complying with these proposed methodologies may carry more than just public relations benefits. For example, to the extent that CO2 emissions are a proxy for fuel consumption, tools to help measure emissions intensity under varying conditions can also help a company optimize fuel (and cost) efficiency through operational choices on such issues as routing and cruising speed. A shipping industry group, in connection with the Maritime Research Institute Netherlands (MARIN), recently initiated a joint venture for the development of software tools to provide ship operators with real-time measurements of emissions intensity and fuel efficiency based on such parameters as the ship's speed, draft engine output and environmental conditions. Such tools could not only help measure and reduce CO2 emissions, but also help shippers achieve greater cost efficiency.

Accurate measurements of baseline CO2 emissions may also help shipping companies with investors and insurers, many of which are showing increasing interest in potential environmental liabilities associated with GHG emissions. The Carbon Disclosure Project (CDP), for example, provides public disclosure of the carbon footprints of hundreds of corporations and other businesses via voluntary annual questionnaires. The CDP is partially funded by institutional investors that pay close attention to the carbon disclosures of the largest companies.

A related CDP initiative is likely to be of interest even to shipping companies that are not publicly traded and which do not face climate-related insurance issues. The CDP's Supply Chain Leadership Collaboration (SCLC) calls on eleven of the world's largest corporations to accurately assess and disclose GHG emissions resulting not only from their immediate operations, but also from many of their suppliers. Overseas transportation may contribute significantly to the aggregate carbon emissions associated with commercial and other goods, and the companies participating in the SCLC or follow-on projects may soon be calling on their transport providers to offer an accounting for their shipping-related carbon emissions. Shippers already conversant with the IMO or similar methodologies for measuring their CO2 emissions may have a significant advantage in dealing with such customers.

California Efforts

California's efforts to regulate GHGs are proceeding at a faster pace than those at the international level. In 2007, the California Air Regulatory Board (CARB), implementing the state's comprehensive GHG control legislation, AB32, began enforcing state regulations on the use of low sulfur fuel in auxiliary diesel engine on ships operating

within 24 miles of the California Coast.² A group of shipping companies challenged the state regulations, which were ultimately invalidated by the U.S. Court of Appeals for the Ninth Circuit on the grounds that they were preempted by the federal Clean Air Act. *Pacific Merchant Shipping Association v. Goldstene*.³

The state has also adopted regulations requiring certain ships docked in California's ports to use onshore electrical power rather than auxiliary engines, thus reducing GHG emissions associated with idling.⁴ However, the regulations are not yet final and are not in effect at this time.

In addition to efforts at the state level, the Port of Los Angeles and the Port of Long Beach have adopted a Clean Air Action Plan (CAAP)⁵ that includes a number of measures applicable to oceangoing vessels designed to reduce emissions of criteria pollutants as well as GHG emissions. The CAAP calls for vessel speed reduction within 40 nautical miles of the ports, the use of onshore power rather than auxiliary engines while at dock and low sulfur fuels (0.2 percent sulfur or less) in main and auxiliary engines. Currently, vessel speed reduction is voluntary and onshore power and low sulfur fuels are being implemented contractually through the issuance and renewal of leases for port terminals.

Conclusion

In conclusion, there is still a great deal of uncertainty as to the shape of maritime GHG emissions regulations. The one clear step companies can and should take is to understand the available methodologies for measuring their own CO2 emissions. Once an assessment of emissions is made, companies can consider other voluntary options that, in the absence of regulations, make good business sense.

*This advisory was authored by **Bruce Pasfield**, a partner in Alston & Bird's Washington, D.C. office, and **Ben Snowden**, an associate in the firm's Atlanta office.*

² Cal. Code Regs. tit. 13, § 2299.1(a), 2299.1(b)(1).

³ No. 07-16695 (9th Feb. 27, Cir. 2008).

⁴ CARB has also proposed fuel-use restrictions that would require ships docking in California ports to use low-sulfur fuel in auxiliary boilers, main and auxiliary diesel engines, and all diesel-electric engines while operating within 24 miles of the California Coast. Cal. Code Regs. tit 13, § 2299.2; 17 C.C.R. § 93118.2. These regulations would not necessarily affect GHG emissions from such vessels, however. Moreover, commentators suggest that the fuel-use restrictions may face the same preemption problems that doomed the California's auxiliary diesel engine regulations. See Erich P. Wise, "California's Regulation of Ship Emissions and the Limits on State Power," presented at Pacific Admiralty Seminar (2008).

⁵ San Pedro Bay Ports Clean Air Action Plan, November 20, 2006.

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If you have any questions or would like additional information please contact your Alston & Bird attorney or any of the following:

Douglas S. Arnold
doug.arnold@alston.com
404.881.7637

Ward L. Benshoof
ward.benshoof@alston.com
213.576.1108

Marisa E. Blackshire
marisa.blackshire@alston.com
213.576.1008

Meaghan Goodwin Boyd
meaghan.boyd@alston.com
404.881.7245

Harold Buckley, Jr.
harold.buckley@alston.com
404.881.7860

Nicki Carlsen
nicki.carlsen@alston.com
213.576.1128

Edward J. Casey
ed.casey@alston.com
213.576.1005

Douglas E. Cloud
doug.cloud@alston.com
404.881.7894

Kipp A. Coddington
kipp.coddington@alston.com
202.756.3408

Charles W. Cohen
chuck.cohen@alston.com
805.230.2301

Thomas S. Cohen
tom.cohen@alston.com
805.230.2302

Peter M. Degnan
pete.degnan@alston.com
404.881.7743

Lee A. DeHihns, III
lee.dehnhns@alston.com
404.881.7151

Shelly Jacobs Ellerhorst
shelly.ellerhorst@alston.com
404.881.7629

Richard (Skip) T. Fulton
skip.fulton@alston.com
404.881.7152

Renu K. Gupta
renu.gupta@alston.com
202.756.3429

Rebecca S. Harrington
rebecca.harrington@alston.com
213.576.1178

Viviana L. Heger
vivi.heger@alston.com
213.576.1149

Megan K. Hey
megan.hey@alston.com
213.576.1043

Barbara J. Higgins
barbara.higgins@alston.com
213.576.1086

Kristin Holloway Jones
kristin.jones@alston.com
404.881.7956

Stephanie A. Jones
stephanie.jones@alston.com
213.576.1136

Tammy L. Jones
tammy.jones@alston.com
213.576.1118

James A. Langlais
jim.langlais@alston.com
404.881.7490

Julie A. Lemmer
julie.lemmer@alston.com
404.881.4410

Orlyn (Skip) O. Lockard, III
skip.lockard@alston.com
404.881.7126

Neal Maguire
neal.maguire@alston.com
805.557.7586

W. Clay Massey
clay.massey@alston.com
404.881.4969

David M. Meezan
david.meezan@alston.com
404.881.4346

Robert D. Mowrey
bob.mowrey@alston.com
404.881.7242

Peter A. Nyquist
pete.nyquist@alston.com
213.576.1142

Bruce Pasfield
bruce.pasfield@alston.com
202.756.5585

Robert D. Pontelle
robert.pontelle@alston.com
213.576.1130

Michele A. Powers
michele.powers@alston.com
213.576.1030

Sharon F. Rubalcava
sharon.rubalcava@alston.com
213.576.1105

Beverlee E. Silva
beverlee.silva@alston.com
404.881.4625

Benjamin L. Snowden
ben.snowden@alston.com
404.881.7632

Ram Sundar
ram.sundar@alston.com
212.210.9404

Shiraz D. Tangri
shiraz.tangri@alston.com
213.576.1129

T. Michael Tennant
mike.tennant@alston.com
404.881.7838

Jocelyn Niebur Thompson
jocelyn.thompson@alston.com
213.576.1104

Geir Vollsæter
geir.vollsæter@alston.com
202.756.3038

Kurt Weissmuller
kurt.weissmuller@alston.com
213.576.1003

Jonathan E. Wells
jonathan.wells@alston.com
404.881.7472

Steven W. Weston
steve.weston@alston.com
213.576.1116

Catherine Mitchell Wieman
catherine.wieman@alston.com
213.576.1044

C. Max Zygmunt
max.zygmunt@alston.com
404.881.4795

ATLANTA

One Atlantic Center
1201 West Peachtree Street
Atlanta, GA 30309-3424
404.881.7000

CHARLOTTE

Bank of America Plaza
Suite 4000
101 South Tryon Street
Charlotte, NC 28280-4000
704.444.1000

DALLAS

Chase Tower
Suite 3601
2200 Ross Avenue
Dallas TX 75201
214.922.3400

LOS ANGELES

333 South Hope Street
16th Floor
Los Angeles, CA 90071-3004
213.576.1000

NEW YORK

90 Park Avenue
New York, NY 10016-1387
212.210.9400

RESEARCH TRIANGLE

Suite 600
3201 Beechleaf Court
Raleigh, NC 27604-1062
919.862.2200

SILICON VALLEY

Two Palo Alto Square
Suite 400
3000 El Camino Real
Palo Alto, CA 94306-2112
650.838.2000

VENTURA COUNTY

Suite 215
2801 Townsgate Road
Westlake Village, CA 91361
805.497.9474

WASHINGTON, D.C.

The Atlantic Building
950 F Street, NW
Washington, DC 20004-1404
202.756.3300

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