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Remarks of

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I appreciate the opportunity to offer some opening remarks for this Second Ballast Water Management Summit about the regulatory requirements facing vessel operators in the near future.

Before discussing the laws that are relevant, I would make two observations. First, the installation of ballast water treatment technology will be a substantial effort. Estimates used at the IMO have projected that that there are roughly 62 thousand vessels (greater than 400 gross tons) that will need to install treatment technology under the IMO Convention. If one assumes that the technology may cost $1 million to $2 million per ship, a capital investment of well over $60 billion will be required.

Second, once the legal obligation to install treatment technology is triggered by entry into force of the IMO Convention, there will be a resulting requirement to install technology over a challenging time frame that will test vessel operators, vendors and shipyards and could affect the cost of the equipment, especially if the number of vendors with U.S.-type approved systems is limited.

The industry has supported efforts to address aquatic invasive species through environmentally protective, economically achievable ballast water treatment standards, but for a required capital expenditure of this magnitude, many industry members would have preferred a legal regime that offered greater clarity, predictability, and investment certainty.

Background

There are two principal legal regimes that are driving this issue. One is the IMO Ballast Water Management (BWM) Convention, which will enter into force one year after ratifications by 30 or more member states that surpass 35% of the world's merchant tonnage. Currently, the number of ratifications now stands at 43 countries, representing 32.54% of the world's tonnage. In short, it will not take much in the way of additional ratifications for the Convention to enter into force.

The second important legal regime is U.S. law, which is implemented by two different government agencies – the Coast Guard and the Environmental Protection Agency -- under two different statutes. While one can certainly find shortcomings in the history of how we got to such an arrangement, the Coast Guard and EPA have done a generally admirable job in coordination and in presenting a unified, consistent approach to the implementation of the U.S. regime.

The U.S. regime has important similarities and important differences from the IMO Convention that are likely to be the subject of further discussion at this conference.

What a ship operating in international commerce needs is a uniform approach to vessel discharge requirements and to the equipment needed to meet those requirements. The U.S. regime has adopted the IMO Convention's ballast water discharge treatment (the "D-2" standard), which confirms a uniform international regulatory objective – which is critically important to an industry that operates internationally.

Where the greatest uncertainty lies is in the debate over what equipment will reliably achieve that objective.

No Globally Accepted Technology

While there is general, global acceptance of the IMO's ballast water treatment discharge standard, there is today no globally accepted ballast water treatment technology.

IMO G8 Guidelines Remain Inadequate and No Vendor Has Yet Met U.S. Guidelines: The IMO's existing "G8" treatment technology type approval guidelines are viewed by many governments and industry representatives as being inadequate and warranting revision. Many vessel owners and operators lack confidence that equipment that has been type approved under the current IMO G8 guidelines will also be type approved by the U.S. or will reliably meet the D2 discharge standard, thus creating investment uncertainty.

The U.S. has established more rigorous type approval requirements to address the shortcomings of the current IMO G8 technology type approval guidelines. U.S. regulations will not recognize IMO type approved ballast water treatment technologies; only U.S. type-approved systems will be acceptable on ships discharging treated ballast water in the United States.[1]

As of today, however, no treatment system has received U.S.-type approval, which means that the regulatory trigger requiring installation of treatment technology for vessels in U.S. trades has not been pulled.

U.S. regulations adopted a compliance schedule for treatment system installation[2], but vessels that have obtained Coast Guard extensions to the compliance schedule will <u>not</u> have to install treatment systems until the Coast Guard has type approved equipment. Once the U.S. has type approved such equipment, vessels operating in U.S. waters will need to use such U.S. type approved equipment.

If the IMO BWM Convention enters into force before U.S. type approved technology is commercially available (and before the G8 guidelines are amended to address the problems with G8), vessel owners would face a legal obligation under the Convention to install IMO type approved technology that may not reliably meet the D-2 discharge standard and that may not be acceptable in the U.S. trades. This has been – and continues to be – an unreasonable and troubling dilemma facing the industry.

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[1] The exception to this is, if a ship operating in U.S. trades installs technology that is a Coast Guard designated Alternate Management System (AMS) before there is U.S. type approved equipment, that AMS could be used in U.S. waters for five years from the vessel's scheduled compliance date. The problem with AMS technology is its time-limited ability to satisfy U.S. requirements once there is U.S. type approved ballast water technology. If an installed AMS fails to earn U.S. type approval, then the vessel will need to replace the AMS with a U.S. type approved systems before the five-year AMS term ends.

[2] U.S. ballast water treatment installation schedule: Vessels constructed on or after 1 December 2013 must comply upon delivery. Vessels constructed before 1 December 2013 must comply as follows: vessels with a ballast water capacity of less than 1500 or greater than 5000 cubic meters must comply as of the first dry-docking after 1 January 2016; vessels with a ballast water capacity between 1500 and 5000 cubic meters must comply as of the first dry-docking after 1 January 2014.

Efforts to Address the Problem at the IMO Marine Environment Protection Committee (MEPC): WSC, along with the International Chamber of Shipping and ten other industry groups, have urged the IMO to establish a process to revise the G8 guidelines, and to grandfather already installed G8 type approved systems for the life of the vessel in order to avoid punishing those who made good faith "early mover" investments in treatment technology. The IMO has agreed to undertake this challenge, but the results – substantively and politically – are likely to remain unclear until next year at the earliest.

Some industry groups have taken the IMO's commitment to try to address these issues as sufficient reason not to oppose further ratifications of the Convention based on the hope that the IMO will develop and approve adequate remedies. Others would prefer tangible evidence of the improvements, to see what changes the IMO will actually implement, and to see whether those changes will be regarded as sufficient by the U.S., so that the capital investment in treatment technology will allow a vessel to call at any port in the world. You are fortunate later this morning to have Mr. Chris Wiley, Chairman of the IMO's Ballast Water Review Group, to brief you on the IMO's challenges and efforts to address the problems with the G8 guidelines.

U.S. Coast Guard Type Approval

So, we have a situation where –

- There appears to be agreement that the IMO type-approval guidelines have shortcomings that must be addressed.
- How and when those shortcomings will be addressed is not certain.
- Failure to address these shortcomings before the IMO BWM Convention is ratified or before U.S. type approved technology is available would place vessel owners in an untenable situation, where they would be obliged to procure and install technology that may not reliably meet the Convention requirements and that may not be acceptable in the United States.
- These shortcomings should be causing thoughtful governments that have not yet ratified the IMO BWM Convention to pause before ratifying, because -- what nation wants to be the one that causes the Convention to come into force before these fundamental issues have been resolved? What nation wants to trigger a requirement on the industry to invest tens of billions of dollars in treatment technology if that investment does not offer the vessels certainty that they can trade anywhere in global commerce with regulatory confidence?

This situation causes many observers to look with keen interest to the U.S. Coast Guard to address the extremely relevant question about when it will type approve ballast water treatment technology. This question is relevant not only to vessels that are calling U.S. ports now, and thus will need to install U.S.-type approved equipment. It is also relevant to vessel operators who may in the future wish to deploy their ships in U.S. commerce and will need to be able to do so legally. It is also relevant to those who lack confidence that existing IMO type approvals provide sufficient certainty that the vessel will meet the D-2 discharge standard.

The availability of U.S.-type approved systems would give vessel operators the ability to install that technology, instead of technology that has only been type approved under the IMO regime, to obtain greater confidence that their investments in such systems should meet the Convention's requirements, as well as U.S. requirements, wherever the ship may operate.

You are fortunate today to have CDR Ryan Allain of the Coast Guard as the next speaker. There is no better informed person to address the issues about the U.S.-type approval process. He can discuss which independent laboratories have been approved to perform type approval testing. He can advise you about how many letters of intent the USCG has received from technology vendors indicating their plans to conduct USCG type approval testing, and how the agency will review and approve a type approval application once it is received.

There is an intriguing question which perhaps can receive some greater illumination during the course of this conference. As I have noted already, there is a multi-billion dollar market for ballast water treatment technology that is likely to be created soon. Under U.S. law, the U.S. market becomes activated once the Coast Guard issues U.S.-type approvals for the treatment technology. The Coast Guard has stated that it will publish the first U.S.-type approval as soon as it has been type approved, which means that there should be an immediate and enormous market advantage to those vendors who receive early U.S. type approval.

The Coast Guard published its final ballast water rule almost three years ago and has been willing to accept type approval applications for over two years. Yet, the Coast Guard is still waiting. For those who thought this might resemble the Oklahoma Land Rush of 1889, where multitudes took off to stake their claims at the sound of the gun, this has been curious. This is more like watching paint dry. So, the question is – why have there not yet been any U.S. type approval applications submitted yet? I am not suggesting there won't be applications, or that they won't be approved once submitted. I and others simply find it curious that they have been so slow in coming.

One may speculate that it may be caused by the uncertainty of technology vendors over whether their product is fit to obtain U.S.-type approval under the more rigorous U.S. type approval testing regime. (I understand, for example, that some technology vendors are seeking an alternate way of determining whether the D-2 standard is being met because their systems may sterilize or deactivate, but not kill, aquatic invasive species in the treated water. Perhaps CDR Allain and the technology vendors engaged in this process could update the group on the status of this initiative.)

Or perhaps, a technology vendor may be relatively confident that its technology may be able to earn U.S. Coast Guard type approval, but it needs more time to either obtain funding to perform the required tests or to "ramp up" its commercial production capability to be able to meet the market demand that the first type approvals will create. Perhaps this conference and the technology companies in attendance will be able to shed some more light on this. There are a number of technology vendors here, and it would be interesting to know how many of them have submitted applications for type approval to the Coast Guard, and, for those that haven't, why that is.

As I briefly noted earlier, however, U.S. Coast Guard type approval is important – not only because it drives the U.S. market for the technology and the legal compliance obligations of ships that will call the U.S., but because it should provide a level of confidence that the IMO discharge standard can be met with a reliable, commercially available product that does not exist currently.

Once there is U.S. Coast Guard type approved technology, a ship should have confidence that it can invest in technology that will allow the vessel to operate globally. Once there is U.S. Coast Guard type approved technology, nations that have not yet ratified the Convention would know that their ratification would not require vessels to make uncertain investments – because, even if the IMO does not remedy the problems that exist today with the current IMO type approval guidelines, a vessel would at least have the option of purchasing and installing technology that had been approved under the more rigorous U.S. type approval standards. That would provide more confidence in the capital investment decisions that ship owners will need to make than the promise of the IMO to address the problem in the future.

Summary

The industry has been performing mandatory mid-ocean ballast water exchange in the nation's foreign commerce for more than a decade. Industry recognizes and accepts that international and national regulatory requirements are likely to soon trigger the requirement to

install of billions of dollars worth of ballast water treatment technology on their vessels, and that this technology should further reduce the risk of the transference of aquatic invasive species from one ecosystem to another.

What the regulations that require this multi-billion investment should provide is certainty that the technology installed, if properly operated, will meet the vessel's regulatory ballast water treatment obligation for the life of the vessel in any port that it calls. We are not there yet.

How this story will end is not certain.

The IMO's efforts to remedy the shortcomings in the current IMO convention regime will be very important.

Whether the Convention will receive enough additional ratifications to come into force before the current shortcomings have actually been remedied by the IMO will be very important.

U.S.-type approval of treatment technology will be very important – not only for vessels operating in U.S. trades, but for vessel operators that would like greater investment certainty in the equipment than current IMO testing protocols may provide.

The outcome that no vessel operator wants to see is the mandatory installation of treatment technology that will not be accepted at all ports the vessel may call either because it lacks U.S. type approval or because it fails to meet the prescribed discharge treatment standard.

Entry into force of the IMO Convention before the IMO has addressed the current problems with its type approval guidelines and before the U.S. has type approved equipment could present such a scenario.

The collective subject matter expertise on these issues at this "ballast water management summit" is impressive. May I close this morning by simply expressing the hope that your discussions, during the day and in the aftermath of this well-timed "summit", will help lead to the establishment of regulatory and investment certainty during the coming months.

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