SHIPPING INDUSTRY BALLAST WATER COALITION

Industry Stakeholders Promoting Safe & Effective Ballast Water Management

June 3, 2002

VIA FAX: 202.493.2251

Docket Management Facility [USCG-2001-10486]
U.S. Department of Transportation
Room PL – 401
400 Seventh Street, SW
Washington, DC 20590-0001

Re: USCG-2001-10486. Standards for Living Organisms in Ship's Ballast Water Discharged in U.S. Waters (Federal Register, Monday, March 4, 2002, Advanced Notice of Proposed Rulemaking and Request for Comments)

Dear Sir or Madam:

The undersigned members of the Shipping Industry Ballast Water Coalition respectfully submit the following comments in response to the March 4, 2002, Advance Notice of Proposed Rulemaking and Request for Comments (ANPRM) on the establishment of standards for living organisms in ship's ballast water discharged in U.S. waters. The Shipping Industry Ballast Water Coalition is a broad-based industry coalition formed to promote the development of a realistic and comprehensive mandatory national ballast water management program in the U.S. to address the important issue of transfer of aquatic nonindigenous species via discharged ballast water in a manner protective of marine safety and the environment. Our coalition and its member associations represent the full spectrum of vessels – tankers, bulk carriers, container vessels and ro-ro vessels, both U.S. and foreign flagged – that carry the overwhelming majority of this nation's domestic and international commerce, the public U.S. ports at which they call, and U.S. maritime labor.

We continue to support, and have in fact requested the U.S. Coast Guard to begin, the creation of a comprehensive, mandatory national ballast water management program, as also documented in separate comments to the dockets for the Coast Guard's three previous requests for comments on ballast water treatment standards, experimental shipboard installations, and the national ballast water program. We are pleased to submit these comments in furtherance of that goal, and we appreciate the Coast Guard's continued leadership on this issue, both nationally and internationally.

Our previous comments have urged the Coast Guard to move expeditiously to establish a comprehensive ballast water management program consistent with its authority under the National Invasive Species Act of 1996 (NISA). Therefore, and in the shared interest of developing alternatives to ballast water exchange, as discussed in greater detail below, the Coalition believes that the Coast Guard needs to establish a ballast water management framework that comprehensively addresses the

issues associated with standard setting and testing and certification of ballast water treatment (BWT) alternatives before it embarks on efforts to establish a BWT standard.

Our comments below explain our suggested approach under three subject headings:

1. The framework for evaluating ballast water treatment alternatives;
2. The basis for establishing a ballast water treatment standard; and,
3. Direct responses to the questions in the ANPRM.

1. The Framework For Evaluating Ballast Water Treatment Alternatives

The Coalition believes that the issues associated with standard setting and testing and certification of BWT alternatives are interrelated and best addressed in one comprehensive rulemaking.

This is not to suggest that such a rulemaking should resolve all aspects of the future program. We recognize that there may need to be additional rulemakings on specific issues. We would also suggest that some aspects of the program may best be handled through agency guidance rather than through regulation. However, we believe the public must first be able to review and understand how the Coast Guard intends for the substantive elements of a future ballast water management program to fit together before it can be expected to provide substantive comments on the various elements. We therefore respectfully disagree with the observation in the Notice that "it is premature to ask for comments on [the many practical problems that need to be addressed in setting up a program for testing and approving BWT alternatives] until an approach (or at least an interim approach) for assessing BWT effectiveness is chosen because many procedural aspects of the testing process will be dependent on the specific nature of the selected approach." ANPRM at 9635.

Efforts to establish a BWT standard and to develop BWT alternatives have been stymied by the question of which comes first – the technology or the performance standard for assessing it. We submit, as we have in previous comments, that in order to solve this impasse, the Coast Guard must, as one of the essential parts of a comprehensive national ballast water management program, establish a BWT performance standard.

This is not to suggest that no work is being done to demonstrate BWT alternatives. There are a significant number of demonstration projects being undertaken in the public and private sectors. Unfortunately, these efforts employ a variety of test protocols and target organisms, which does not permit a comparison of the effectiveness of one BWT alternative to another. As a result, private companies are frustrated in their efforts to develop and market BWT alternatives, and vessel owners are understandably reluctant to test BWT on operating vessels without some assurances that the alternative is likely to meet the regulatory requirements now and for the reasonably foreseeable future.

The Coalition recommends that the Coast Guard undertake a comprehensive rulemaking to address the necessary components of a BWT alternative testing and certification program. Again, we are not suggesting that such a rulemaking should resolve all aspects of the future program. We recognize that there may need to be additional rulemakings on specific issues. We would also suggest that some aspects of the program may best be handled through agency guidance rather than through regulation. Based on our previous comments to the Coast Guard, we suggest the following elements and issues be addressed in this program:

- Establish BWT Standard: As discussed in Section 2 of these comments, we urge the Coast Guard to establish an interim BWT standard based on a broad average effectiveness of ballast water exchange (BWE) calculated across as many types of vessels and trading patterns as are available in existing data for a limited number of surrogate organisms. To ensure such a standard would be most protective of the environment, we recommend that the Coast Guard only consider the effectiveness of successful BWE events in setting the interim standard. We do not support adjusting the effectiveness of BWE based on the probability of conducting a safe and effective BWE on every voyage.

  As stated in our previous comments, it would not be unreasonable for the Coast Guard to periodically adjust the BWT standard based on data collected during shipboard BWT testing programs or through other research efforts. In this way, the accuracy of the BWT standard could be improved over time. Procedures should be included for adjusting the BWT standard and for dealing with BWT alternatives which were certified before adjustment to the BWT standard.

- Pilot-Scale Studies: The Coast Guard should establish procedures for assessing the effectiveness of possible BWT alternatives utilizing a standardized test facility (either land-based, shore-side, or on a vessel) and a standard ballast water profile composed of known quantities of organisms representing an appropriate number of taxonomic groups to be selected by the Coast Guard. The purpose of this element of a BWT testing and certification program is to pre-screen BWT alternatives for testing in shipboard studies.

- Shipboard Studies: The Coast Guard should establish procedures for shipboard testing programs at which time the first phase effectiveness would be compared to results obtained during this shipboard phase with regard to the taxonomic groups found in the managed ballast water. Comparison would allow for an initial conclusion relative to transferability of the results to the shipboard environment if the results from the shipboard phase were equal to or better than the effectiveness determined in the first phase. During the shipboard study, direct comparison should also be assessed between the BWT alternative and BWE. Within the procedures, the Coast Guard should address the number of direct comparisons between the BWT alternative and BWE that should be undertaken, as well as interim compliance issues.

- Certification: The Coast Guard should establish procedures for certification of technologies. Issues that should be addressed include procedures for determining the range of vessels to be

covered by the certification, effect of certification when the standard is revised, and compliance assessment of certified BWT alternatives.

2. The Basis For Establishing A Ballast Water Treatment Standard

NISA provides that a vessel entering waters of the U.S. from outside the exclusive economic zone (EEZ) may use environmentally sound alternative ballast water management methods in place of BWE, if the Secretary of Transportation determines that such alternative methods are at least as effective as BWE in preventing and controlling infestations of aquatic nuisance species. The purpose of the ANPRM is to present various approaches that the Coast Guard could use to "define for programmatic purposes what 'as effective as [BWE]' means." ANPRM at 9633.

On May 1, 2001, the Coast Guard sought comments on four approaches for setting BWT standards: two "approaches based on BWE as currently specified by Congress under NISA" and two "approaches not related to BWE but used in other standard setting efforts." 66 Fed. Reg. 21808. In the ANPRM, the Coast Guard summarizes the comments received on the May 1, 2001 request for comments as well as information taken from the Globallast workshop and two invitation-only workshops hosted by the Coast Guard in April and May 2001. The Coast Guard concludes its summary of comments by stating that: "Technical experts at the Coast Guard and IMO [Globallast] workshops, and comments by the National Oceanic and Atmospheric Administration, agree that scientifically determining even the quantitative effectiveness of BWE (leaving aside its qualitative effectiveness) will be challenging." ANPRM at 9634.

The Coalition acknowledged in its comments on the May 1 Notice that quantifying the biological effectiveness of BWE would be difficult. However, we urged the Coast Guard not to let perfection be the enemy of the good, and recommended that the Coast Guard comply with the terms of NISA and establish an interim BWT standard based on a broad average effectiveness of BWE calculated across as many types of vessels and trading patterns as available in existing data for a limited number of surrogate organisms. To ensure such a standard would be most protective of the environment, we further recommended that the Coast Guard only consider the effectiveness of successful BWE events in setting the interim standard, and we opposed consideration of the probability of conducting a safe and effective BWE on every voyage when estimating the overall effectiveness of BWE. Unfortunately, immediately after summarizing our position in the ANPRM, the Coast Guard appears to reject this environmentally protective approach: "The Coast Guard considers the feasibility of conducting a mid-ocean exchange to be one of the significant issues in evaluating BWE." ANPRM at 9634.

The decision not to undertake any approach to quantifying "what 'as effective as [BWE]'means," is further explained to be based on a determination that "the discussion of BWT standards has focused, until now, on the suitability of basing standards on existing technology, rather than on developing new technology that better meets the Congressional intent of eliminating ballast water discharge as a source of harmful NIS." ANPRM at 9634. From this novel interpretation of Congress'

intent, the Coast Guard introduces "an approach it is currently considering in which an alternative BWT method would be judged to be at least as effective as BWE if it:

- Produces predictable results,
- Removes or inactivates a high proportion of organisms,
- Functions effectively under most operating conditions, and
- Moves toward a goal that expresses the Congressional intent to eliminate ballast water discharges as a source of harmful NIS."

Finally, the Coast Guard states that it is "seeking comments that will help it define the standards and goals that would meet these criteria." The agency presents three possible goals and four possible standards. We note that only one of the three possible goals and none of the four possible standards is based on BWE.

The Coalition is concerned that the novel interpretation of Congressional intent, effectively discarding BWE – which today is the only commercially available "existing technology" – as the basis for setting a BWT standard, appears to lead the agency to replace NISA's standard that a BWT alternative may be used if it is at least as effective as BWE with a non-NISA compliant standard.

In pursuing an approach to setting a BWT standard that is not based on BWE, the Coast Guard appears to rely to a large degree on the information taken from the Globallast workshop and the two invitation-only workshops hosted by the agency in April and May 2001. As quoted above, the Coast Guard appears to have accepted the findings from these workshops to decide that it would be too difficult to develop a quantitative BWT standard based on BWE. We note that the Coast Guard did not include as a proposed standard in the ANPRM the approach recommended by the Coalition in our comments on the May 1, 2001 notice, most likely because it would have required the Coast Guard to quantify the effectiveness of BWE. All four proposed standards in the ANPRM are identified as originating with either the Globallast or the Coast Guard's workshops. ANPRM at 9635.

We believe the Globallast recommendations, which were generated as part of discussions at the international level on possible approaches for a new global ballast water treaty, are not directly transferable to immediate implementation within the U.S. under the framework provided in NISA. However, should the Globallast recommendations be agreed to by the U.S. as part of an international agreement, NISA directs the Coast Guard to revise its regulations to be consistent with the international agreement. 16 U.S.C § 4711(f)(3).

We are unclear how the participants at the Coast Guard's workshops were able to disregard NISA's statutory mandate. Requests by the Coalition to attend the workshops, even as observers, were denied by the Coast Guard. Because the Coast Guard has yet to publish reports from its workshop, we have not been able to review any information about the meetings except that which was provided in the ANPRM.

Another concern we have with the Coast Guard approach to establishing a BWT standard based on "new technology," is that no such technology currently exists, and so the infant BWT industry will continue to stagnate. A footnote to the proposed standards concedes that the relationship between any of the proposed standards and the capability of current technology to remove target organisms is not well established. However, the footnote assures us that "workshop participants felt these removal efficiencies are practical and realistic initial targets." Few vessel owners will likely be willing to undertake BWT demonstration while the regulatory agency continues to pursue a vague and unsubstantiated approach to defining a BWT standard. Furthermore, it is questionable whether the Coast Guard would have the authority to enforce such a standard if a vessel requested to use a BWT alternative that is at least as effective as BWE but not as effective as the Coast Guard's standard.

The Coalition fully supports an approach to establishing a BWT standard that is achievable and effective, both with respect to the environment and cost, so a wide range of technologies can be tested onboard vessels. As we stated in our comments on the May 1, 2001 notice, we believe the Coast Guard can establish an interim BWT standard based on the biological effectiveness of BWE. In the ANPRM, the Coast Guard cites five studies that "found that BWE reduced the number of organisms in ballast water from 39% to 99%, depending on the taxonomic groups and ships studied." ANPRM at 9634.

We believe this information, and any other that may be available, provides the Coast Guard with a basis to set a BWT standard based on BWE, which would be fully consistent with NISA and would provide a level of certainty necessary for vessel owners and BWT developers to begin testing technologies.

It would not be unreasonable for the Coast Guard to periodically adjust the BWT standard based on data collected during shipboard BWT testing programs. In this way, the accuracy of the BWT standard could be improved and the range of taxonomic groups considered could be expanded over time. The BWT testing and certification framework should provide mechanisms for adjusting the BWT standard and for dealing with BWT alternatives which were certified before the BWT standard was adjusted.

Taken in conjunction with our comments in Section 1 of these comments, we believe our comments on a BWT standard provide a way forward for the Coast Guard to develop a workable national ballast water management program. It is time to develop an understandable and workable process for ship owners and BWT developers to begin identifying and testing promising BWT alternatives.

3. Direct Responses To The Questions In The ANPRM

Q1. Should the Coast Guard adopt G1, G2, G3, or some other goal (please specify) for BWT? We believe that only G3 is consistent with NISA and would be suitable for consideration as a possible BWT standard. We also believe the actual formulation of the BWT standard must occur as part of the broader BWT testing and certification framework. For example, we support requiring a direct comparison between BWE and BWT alternatives on a test vessel to determine the effectiveness of the BWT alternative over a range of operating conditions and trade routes. However, it may not make sense to require the direct comparison on every voyage during the evaluation, or for every vessel that wants to install a certified technology. Figuring out how many comparisons are appropriate and how transferable a BWT technology will be among different vessels will take time and research. This is why we urge the Coast Guard not to lock in a specific BWT standard in regulation before it develops its BWT testing and certification framework. The standard and the framework must allow the agency sufficient flexibility to modify the program as it gains more experience.

Q2. Should the Coast Guard adopt any of the standards, S1 – S4 as an interim BWT standard? (You may also propose alternative quantitative or qualitative standards.) We do not believe any of the four suggested standards are NISA compliant. None of them should therefore be adopted.

We urge the Coast Guard to establish an interim BWT standard based on a broad average effectiveness of BWE calculated across as many types of vessels and trading patterns as available in existing data for a limited number of surrogate organisms. To ensure such a standard would be most protective of the environment, we recommend that the Coast Guard only consider the effectiveness of successful BWE events in setting the interim standard. We do not support adjusting the effectiveness of BWE based on the probability of conducting a safe and effective BWE on every voyage.

Furthermore, as discussed in the first part of these comments, we urge the Coast Guard to establish the interim standard within the context of a broader BWT testing and certification framework, which could allow for periodic adjustments in the BWT standard to incorporate additional data as it becomes available.

Q3. Please provide information on the effectiveness of current technologies to meet any of the possible standards. Please comment, with supporting technical information if possible, on the workshop participants' assessment that these standards are "practical and realistic initial targets". The Coalition is not in possession of standardized test data which would enable comparisons among technologies or with the proposed standards.

We are doubtful that such data exists today – because of the continued, critical need of standardized test protocols and a comprehensive shipboard test program – to determine the effectiveness of current technologies. We submit, therefore, that any meaningful response to the question posed can only be provided once such protocols and a test program have been promulgated and reliable and valid test data has been collected and compared to the biological effectiveness of BWE.

This view was apparently shared by the workshop participants who were only able to express an unsubstantiated "feeling" that the standards were "practical and realistic." Because members of the Coalition were not permitted to attend the two Coast Guard workshops, and because the Coast Guard has not yet published any reports of the workshops, we have no way to assess the basis for the participants' "feeling."

Q4. General comments on how to structure any cost-benefit or cost-effectiveness analysis that evaluates the above four possible standards. We are requesting comments on how the Coast Guard should measure the benefits to society of the above possible standards in either qualitative or quantitative terms. How would the benefits be measured considering each possible standard (if each continued) to allow the introduction of invasive species, but at different rates? What would the costs be to industry in each of the four proposals? How would the cost to industry differ by possible standard? The Coalition respectfully abstains from responding directly to this and the two remaining questions because we do not believe that any of the four standards would comply with NISA and, therefore, should not be pursued further.

However, we do wish to reiterate that any meaningful cost-effectiveness analysis of a BWT standard should be stated in biological terms, further emphasizing the need for standardized measurement protocols which would enable comparative analysis among technology types. Similarly, shipboard test data is critically needed to determine the actual or relative costs to the industry associated with a standard. As the Coast Guard is aware, several shipping companies, represented by the Coalition members, have or are participating in the installation of shipboard test systems. The direct costs of these installations range from several hundred thousand to over one million dollars. The Coalition wishes to reassure the Coast Guard of our continued commitment to working with the agency in developing and testing BWT alternatives that have the potential of achieving NISA's objectives as expeditiously as possible.

Q5. What impact would the above four standards have on small businesses that own and operate vessels? Cost issues, when fully developed under a NISA compliant standard, should apply equally to both large and small businesses since the implementation costs will be on a per ship basis.

Q6. What potential environmental impacts would the goals or standards carry? In general terms, responding to this question for any particular BWT standard will be difficult at best. Clearly, the risk associated with organisms left in ballast water, when quantified, is the critical factor relative to risk of invasion. However, it should be recognized that environmental impact associated with a particular technology, regardless of the standard applied, is critical in assessing a particular compliance strategy relative to environmental soundness. Again, the only valid way in which such impacts can be accurately quantified, is to provide incentives for shipboard testing, which will generate the necessary data relative to residual risk associated with invasion potential as well as the impact of the technology on the receiving water body.

4. Conclusion

We commend the Coast Guard for its continued leadership – domestically and internationally at the IMO – in undertaking the process of addressing the important issue of transfer of nonindigenous species via discharged ballast water. Hopefully, the IMO will later this year agree to hold a diplomatic conference in 2003 to discuss and approve an international convention on ballast water management, which should include a BWT standard (or standards) and which could be incorporated into U.S. law. In the meantime, and in the event that an international agreement is not achieved next year, NISA provides a sound statutory framework for the Coast Guard to move forward expeditiously in this country to develop a BWT testing and certification program. NISA provides, pursuant to the terms of 16 U.S.C. § 4711(f)(3), for the Coast Guard to amend the U.S. program to incorporate all provisions of any future international agreement upon the U.S. acceptance of such an agreement.

We stand ready to assist the Coast Guard in meeting these important challenges, and appreciate the opportunity to comment on this most important rulemaking. Please feel free to contact any of the signatories listed below if you have any questions or would like to discuss this issue further.

Sincerely,

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