

July 21, 2008

Environmental Protection Agency
Water Docket
Mail Code 2822 T
1200 Pennsylvania Avenue, NW
Washington D.C. 20460

Re: Docket # EPA-HQ-OW-2008-0055

Gentlemen:

The following comments on the Environmental Protection Agency's proposed ballast water discharge regulation, and the accompanying General Vessel Permit, are submitted on behalf of the Cleans Oceans Technology Coalition and, separately, on behalf of Nutech O3, Inc. The Coalition represents many of the major inventors and developers of ballast water treatment technology in the United States.

The proposed EPA regulation will do nothing to end the ANS threat. It perpetuates the long discredited practice of discharging and exchanging ballast water 200 miles off-shore. The proposal regulation is premised, we believe, on the mistaken belief that technology is not yet available that will enable ship owners to treat ballast water and kill the unwanted ANS.

This belief is not accurate. Treatment technologies are available, today, which have the capability to totally end the environmental threat created by invasive species found in a ship's ballast water. Several of these technologies are discussed in Section IV.

There are numerous problems inherent in the proposed draft regulation that make it totally ineffective in ending the environmental and public health problems created by invasive aquatic nuisance species (ANS).

I. A Numerical Treatment Standard is Required.

A. The shipping and technology treatment industries need to know what the rules of the game will be. Both industries *must* know how clean treated the water will be required to be. *Without a numerical treatment standard, no one will be willing to install, or be able to sell, already available treatment technologies.* Hence, the environmental threat posed by recently introduced ANS, such as Viral Hemorrhagic Septicemia, will continue to increase.

The Government should remain neutral in determining which technologies will win in the market place. The ballast water treatment industry would oppose designating any single treatment technology as the "approved" technology. Any technology that meets a numerical treatment standard, while also meeting *reasonable* requirements for not discharging treatment chemicals into the receiving water, ought to be approved. It would be totally unrealistic to require that there be no trace quantities of biocides, or other chemicals, in treated ballast water.

B. Section 2.2.3.4 of the proposed Vessel General Permit does not address our industries concerns, either. It merely authorizes the on-board use of treatment technology approved by the Coast Guard. The Coast Guard's Shipboard Environmental Testing Program is far too slow, too cumbersome and filled with delays, to rapidly make proven treatment technologies available to the shipping industry.

Although it has been announced that the Coast Guard will release ballast water treatment standards, and certification and safety regulations, for public comment in 2008, and final issuance in 2009, that announcement does not end our concerns. Ballast water treatment regulations, containing a treatment standard, have been promised since 2006 but, to date, no treatment regulations have been issued.

II. There Must be a Uniform, National, Treatment Standard

The Clean Water's NPDES Permit Program, which allows states to set their own treated water discharge standards, cannot work in the context of ballast water discharges. The Environmental Protection Agency has been ordered to regulate ballast water discharges but there is nothing in the text, or structure, of the Act requiring that a ship be treated as though it were a stationery point source, which clearly it is not. Unlike power plants and steel mills, ships move. On a typical Pacific coast voyage, a freighter may visit ports in 4 different states in the course of a single voyage. On the Atlantic coast, or on the Great Lakes, it may readily enter ports in 8, or more, states during a single voyage.

It is, therefore, operationally, and logically, impossible for a vessel to be required to meet differing treatment standards, and/or differing required technology rules established by various states and, possibly, local jurisdictions. First, differing state imposed treatment standards are almost certainly unconstitutional because they would impermissibly burden interstate commerce. Second, no single state should be allowed to dictate the ballast water treatment standard to the rest of the county. If one state is allowed to set a higher treatment standard than any other state is willing to impose, then that state will be allowed to autocratically impose its treatment standard as a *de facto* national treatment standard. Even if a vessel's operations are limited to ports on a single coast, two or three states, would arbitrarily acquire that power over all of the surrounding states in its region. That would be an unworkable and Constitutionally suspect approach to ending the ANS problem.

The environmental groups who oppose this regulation have been hoist by their own petard. They keep on hoisting and their current position continues to damage the environment. Notwithstanding the unacceptable draft EPA regulations, these groups also continue their opposition to the Ballast Water Management Act – *which has a treatment standard far more stringent than the IMO's standard* - because it preempts the Clean Water Act and also preempts all state regulations of such discharges.

Therefore, unless those groups modify their position on these issues, they will have achieved nothing after 6 years of litigation except 6 more years of litigation over the same issue. They have not removed a single microbe from a single gallon of ballast water. Members of the Clean Oceans Technology Coalition can do so today if EPA will only issue a regulation making it possible for them, and ship owners, to do so.

III. EPA Must Issue Interim Certification, Testing and Safety Standards

We strongly recommend that EPA issue interim treatment, certification and safety regulations, as a part of this rule, until such time as the Coast Guard issues its own regulations, on each subject, and is able to test and certify submitted treatment technologies with 60 days of the technology being delivered to the Coast Guard for testing.

No ship owner will purchase uncertified technology no matter how stringently its testing in the private sector unless that testing is accepted by the Government. Unless interim standards are issued, it will be impossible for any technology vendor to obtain the required approvals. Issuing a numerical treatment standard without simultaneously issuing approval regulations and testing protocols would be no different than building a car without an engine. Therefore, a proposed set of draft, interim regulations, and an explanation of the need for it, is attached to these comments

The Coast Guard has substantial, more pressing responsibilities, in maintaining port security and interdicting shipments of illegal drugs. Establishing and administering ballast water treatment regulations is not, nor should anyone expect that to be, one of its priorities. Therefore, either Congress must enact appropriate legislation or EPA must issue the required regulations. Otherwise, invasive species will continue to threaten the public's health, water quality and indigenous fish and wild life for no valid reason.

IV. Effective Treatment Technologies Are Available.

A. Nutech O3 has tested its ozone injection technology on board two British Petroleum oil tankers in regular operation, in addition to conducting extensive land based testing both at the University of Washington's Merristone Test Facility in Puget Sound and at the La Que Institute for Corrosion Research in Wrightsville Beach, North Carolina.

Nutech O3 has conclusively proven that ozone is an effective means of killing ANS, which meets the proposed International Maritime Organization's Ballast Water Treaty's treatment standard as well as the far more stringent standard in the proposed ballast water legislation now being considered by the U.S. Congress. Testing has been conducted, over a 9 year period, by independent research scientists and engineers at the University of Maryland, the University of Washington, Iowa State University, the Smithsonian Institution's Environmental Research Center, the University of North Carolina-Wilmington and the University of California-Irvine.

The most recently conducted series of tests were completed in December 2007. These tests were conducted by Dr. David Wright of the University of Maryland and the accompanying report written by him and Dr Robert Gensemer of the University of Washington and Dr. William Cooper of the University of California at Irvine. This report will be submitted by the National Oceanic & Atmospheric Administration to the U.S. Congress, later this summer. It proves that ozone is a safe, effective means of killing invasive species in ballast water.

The testing protocol that was used for these tests was developed in consultation with a NOAA established Advisory Panel. That Panel included representatives from EPA, the Fish &

Wildlife Service, the Coast Guard, the California State Lands Commission, an internationally recognized marine engineering firm – British Maritime Technologies - and the shipping industry.

Extensive research on the impact of ozone on the integrity of a ship's hull was conducted by the La Que Institute. It demonstrated that ozonated ballast water did not increase the rate of corrosion and may even slow it down.

Nutech O3's treatment technology was successfully tested in Puget Sound, Washington on board the British Petroleum oil tanker Prince William Sound, in late 2007. The test report is included in the attached CD Rom Disk. Nutech O3 completed testing of its technology in December 2007. A copy of Professor David Wright's Report, which has been submitted to the National Oceanic & Atmospheric Administration is annexed. Nutech O3 requests that this Report, which will be submitted to Congress by NOAA, in August, be made a part of the Rule Making record.

In addition to testing in the United States, this technology also tested by NK Co., Ltd., of Busan, Republic of Korea, Nutech's partner in this project. NK Co. tested this technology both on a barge, in the Port of Busan and on a Hyundai cargo freighter. Ballast water was taken on in Busan, Singapore, Rotterdam, Netherlands and Hamburg, Germany. Thus, this technology has been proven effective in killing invasive species North America, North East Asia, South East Asia and Europe.

Later this month, GESAMP, the scientific advisory committee to the International Maritime Organization's Marine Environmental Protection Committee, is expected to approve Nutech's ozone injection technology. That application was submitted to the IMO under the auspices of the Korean Government and Nutech's Korean partner NK Co., Ltd. If that approval is granted, the MEPC is expected to grant final type approval for our technology at its October 2008 meeting.

B. Another member of the Coalition, Alfa Laval, has developed its own Advanced Oxidation Technology which uses ultra violet light and titanium netting. It has also been found to be fully effective in meeting IMO treatment requirements. Alfa Laval's technology will also be considered at the June GESAMP meeting and it, too, is expected to receive GESAMP's approval as well as the MEPC's approval, in October.

Another Coalition member, Echochlor, has also submitted its technology for GESAMP/IMO approval which is anticipated later this year, as well.

C. Beyond this, Lloyd's Register published a report, in 2007, entitled *Ballast Water Treatment Technology: Current Status*. That report listed more than 20 companies, including members of this Coalition, who have treatment technologies in various stages of development. The single greatest barrier faced by all of these companies, in getting their respective technologies to the market, is the absence of a definitive treatment standard. It is difficult to develop technologies when one is not certain where the goal posts will be and it is even more difficult to attract financing when potential investors do not know, either.

V. Conclusion

The ANS problem is worsening by the day. The attached newspaper article, published in the Washington Post, on Saturday July 19, 2008, exemplifies the scope of this problem. The Coalition and Nutech O3 hereby incorporate that article as part of their comments.

For all of the foregoing reasons, we strongly recommend that the proposed regulation, and its accompanying General Vessel Permit, be substantially changed to include a numerical treatment standard, either the proposed IMO standard, the proposed Congressional standard, or both, with the latter phased in as more effective treatment technology comes on the market.

The proposed treatment standard could, alternatively, incorporate a provision requiring the use of Best Available Control Technology that is economically reasonable with the definition of BACT centered around meeting a numerical treatment standard such as the IMO's proposed treatment standard or that used in pending federal legislation.

There are many provisions of the pending Senate Ballast Water Management Act, and the House Ballast Water Treatment Act, that could usefully be incorporated into a revised – or subsequently amended - EPA ballast water treatment regulation. We urge that you consider many of the provisions contained in that legislation in crafting a revised ballast water treatment regulation. In addition, we have also submitted additional proposed amendments to that legislation dealing with the issuance of interim testing, certification and safety regulations until such time as the Coast Guard issues final regulations on these subjects.

EPA, and the Coast Guard, must recognize that the solution to the invasive species problem is available now and that the absence of such regulations is the only reason that treatment technologies is are not already on the market and being installed on ships.

Very truly yours,

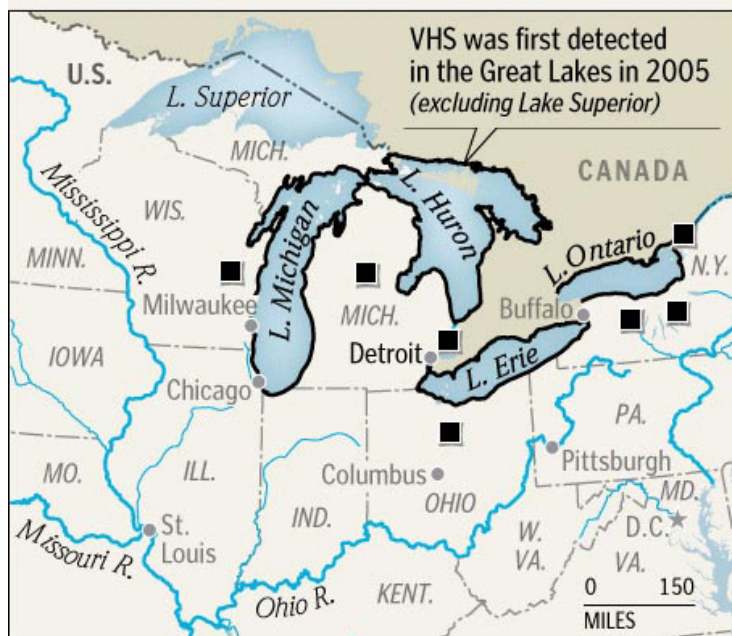
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Attachments

Coalition & Nutech O3, Inc.
EPA Rule Making Comment

Bodies of water where fish have tested positive for viral hemorrhagic septicemia (VHS)



Fish Virus Feeds Fears It Will Spread to Mississippi River

By Kari Lydersen
Washington Post Staff Writer
Saturday, July 19, 2008; A02

CHICAGO -- A deadly fish virus has been found for the first time in southern Lake Michigan and an inland Ohio reservoir, spurring fears of major fish kills and the virus's possible migration to the Mississippi River.

The Illinois Department of Natural Resources invoked emergency fishing regulations June 30 to stop the spread of viral hemorrhagic septicemia (VHS), often described as "fish Ebola," which was found in round gobies and rock bass tested at a marina near the Wisconsin border in early June.

A few days earlier, the virus was detected in round gobies and yellow perch just outside Milwaukee. And weeks earlier, muskellunge in the Clear Fork Reservoir north of Columbus, Ohio, tested positive for the virus. That was the first time the virus was found in a waterway outside of the Great Lakes basin.

The virus attacks saltwater fish off the coasts of Europe, Japan and North America. It was first found in the Great Lakes in 2005. Officials say it was probably transported in the ballast water of the oceangoing freighters that enter the lakes through the St. Lawrence Seaway.

In 2005 and 2006, VHS caused major fish kills in Lake Ontario, Lake Huron, Lake Erie and Lake St. Clair, and it was found in northern Lake Michigan. State and federal officials, however, took immediate steps -- such as banning the transporting of fish and bait among lakes, and requiring the cleaning of boats and fishing equipment -- that limited the spread of the virus in 2007.

But this year's virus detection in Wisconsin, Illinois and Ohio are of particular concern, as the virus was never before seen in those areas and all are routes to the Mississippi River, through the Chicago Sanitary and Ship Canal and the Ohio River. Officials worry that if VHS finds its way into the Mississippi, it will be carried by fish to other rivers and to hatcheries throughout the Midwest and much of the South.

"We're holding our breath, because we could see an outbreak," said Marc Gaden, Great Lakes Fishery Commission legislative liaison.

States have implemented their own rules in addition to federal regulations.

"Guys will go and fish Lake Michigan, and within a week they will be on another big lake," said Steve Robillard, Illinois Department of Natural Resources fisheries biologist. "There's the chance of it getting in there and affecting walleye fisheries or other game fish."

VHS, which has no effect on human health, causes a fish's eyes, skin and gills to hemorrhage. The virus is spread through bodily fluids and can survive in the water for several weeks without a host.

"It ranges from disgusting bloody fish with their eyes popped out to fish with no signs of infection," Gaden said. "Fish swim around, they are in proximity to each other in lakes, just like a kid at a day-care center is more likely to get sick than a kid at home."

The Great Lakes variety of the virus appears to have come from the Atlantic Ocean.

"VHS, in general, is probably the most significant fish disease worldwide, and the Great Lakes strain is even more of a concern, because it seems to affect a wider range of species," said Ken Phillips, a microbiologist at the U.S. Fish and Wildlife Service fish health lab in La Crosse, Wis.

Wisconsin officials fear that the virus could sabotage their decade-long efforts to stabilize the yellow perch population after a serious downturn in the 1990s.

Ohio officials are worried the Little Manistee River steelhead trout from Michigan, on which they depend to stock their hatcheries, could test positive for VHS, meaning they could not be imported.

Last spring, members of the Lake Carriers' Association, which transport iron ore, coal and limestone on the Great Lakes, adopted voluntary measures to try to prevent VHS transmission. These include inspecting the intake screens, which keep fish out of ballast tanks, yearly instead of every five years, and using pumps to discharge ballast, "so any live fish will be ground up into fish goo," in the words of association President Jim Weakley.

The administration's fiscal 2009 budget includes \$2.53 million for VHS activities carried out by the Department of Agriculture, and the farm bill authorizes Agriculture's Animal and Plant Health Inspection Service to consider VHS a high priority.

Many state natural resources officials say VHS outbreaks could have serious effects on commercial and sport fishing industries. But Chuck Pistis, state coordinator for the Michigan Sea Grant, thinks fears are overblown.

"The dire predictions made several years ago have not really showed up yet," he said. "It's better to be proactive and plan for it than be sorry, but there's still a lot of difference of opinion on whether the worst-case scenario of massive die-offs will take place or not. I could think of much bigger issues affecting the industry, like gas prices."