NATIONAL WATERWAYS
FOUNDATION

WATERWAYS: *Working for America*

Waterways transportation keeps commerce on the move, with fewer adverse societal impacts than truck or rail.

Texas Transportation Institute

Highlights of "A Modal Comparison of Freight Transportation Effects on the General Public"

A study by the Texas Transportation Institute, Center for Ports and Waterways

America's Waterways:

Easing Rail and Highway Congestion in Our Communities

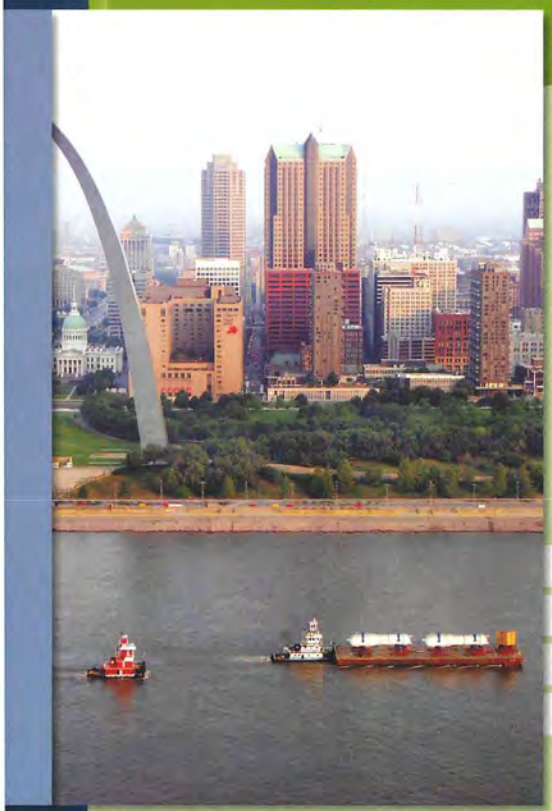
Our waterways provide great capacity to ease congestion by carrying cargo that would otherwise travel by truck or rail. The annual traffic on America's inland navigation system, including the Gulf Intracoastal Waterway and the Ohio, Mississippi and Columbia-Snake River systems, carries the equivalent of 58 million truck trips each year.

A Costly Scenario:

If waterborne cargo were diverted to highways or rail

Diverting waterborne cargo to the nation's Interstates would cause heavy truck traffic to nearly double. Or, if the current waterway freight traffic were diverted to rail, the tonnage on the nation's railroad system would increase by nearly 25%, with the heaviest burden being placed on the Eastern U.S. railroads, which are already operating at near capacity.

- **To highways:** Two inches of asphalt would be needed to increase the pavement thickness of 126,000 lane-miles of intercity Interstate. The effects would be greater for highways parallel to the waterways.
- **To rail:** To transport coal used in more than 50 electric generating plants adjacent to the Ohio River System, CSX railroad would need 156 new locomotives and 5,616 new coal cars. The system's average train velocity would drop by one-third.



Hypothetical Case Study:

Waterways Closure on the Mississippi & Illinois Rivers

What would happen if the Mississippi and Illinois Rivers were shut down in the vicinity of St. Louis? Using the Federal Highway Administration's HERS_ST model, the Texas Transportation Institute estimated the resulting impacts of shifting millions of tons of cargo from the river system to the city's already crowded Interstate arteries.

Assuming that cost-effective roadway improvements were undertaken, the analysis concluded that highway costs over 10 years would increase from $345 million to over $721 million.

- ***Truck traffic on St. Louis roadways would increase by 200%***
- ***Traffic delays would increase by almost 500%***
- ***Injuries and fatalities on Interstates would increase by 36% to 45%***
- ***Maintenance costs would increase by 80% to 93%***

While a permanent river shutdown cannot be anticipated, this case study demonstrates that the loss of river transportation would have a dramatic negative impact.

Advantages of Inland Barge Transportation:

A Smaller Carbon Footprint

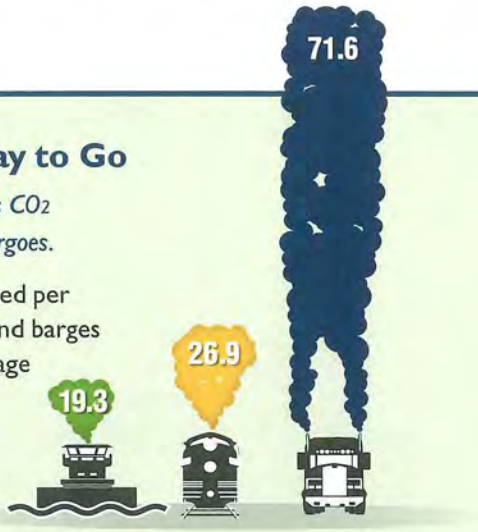
Inland barge transportation produces far fewer emissions of carbon dioxide for each ton of cargo moved compared to transport by truck or rail, according to a recent study conducted by the Texas Transportation Institute. Comparing transport emissions per ton-mile (emissions generated while shipping one ton of cargo one mile), researchers calculated that transport by rail emits 39% more CO_2, and transport by truck emits 371% more CO_2, than transport by inland barge.

According to the study, if the 274.4 billion ton-miles of activity on America's inland waterways in 2005 were shifted to rail or truck, rail transport would have generated 2.1 million additional tons of CO_2 and truck transport would have generated 14.2 million additional tons of CO_2. This assumes these modes had the capacity to handle the additional cargo with no change in efficiency.

The Greener Way to Go

Inland barges produce less CO_2 while moving America's cargoes.

In terms of CO_2 produced per ton of cargo moved, inland barges have a significant advantage over trains and trucks.



Tons of CO_2 per Million Ton-miles

Transport on America's Waterways Means Fewer Emissions

Following a scientific review ordered by the U.S. Supreme Court, the EPA recently issued a proposed finding that "greenhouse gases contribute to air pollution that may endanger public health or welfare."* The agency estimates that 33% of our nation's annual carbon dioxide emissions come from transport-related activity.** Compared to rail or truck, inland barges offer America a more fuel efficient, safer and *carbon friendly* transportation alternative. Our inland waterways are a sound investment in America's future.

Texas Transportation Institute

From a study titled "A Modal Comparison of Domestic Freight Transportation Effects on the General Public," November 2007, amended March 2009, by the Texas Transportation Institute, Center for Ports and Waterways. For the full report, visit our website: www.nationalwaterwaysfoundation.org. This study was a joint project of the National Waterways Foundation and the United States Maritime Administration.

* *Environmental Protection Agency - Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act - http://epa.gov/climatechange/endangerment.html (24 April, 2009)*

** *Environmental Protection Agency - Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007 http://www.epa.gov/climatechange/emissions/usinventoryreport.html (20 April, 2009)*

NATIONAL WATERWAYS FOUNDATION

801 North Quincy Street, Suite 200, Arlington, Virginia 22203
703.373.2261 | NWF@vesselalliance.com | **www.nationalwaterwaysfoundation.org**

An "Inland Marine Highway" for Freight

America's inland river barge system moves freight more safely and more efficiently than rail or truck. It is a key component of the transportation network and essential to our country's economic strength.

Connecting our communities

The inland waterways system includes about 12,000 miles of commercially navigable channels and some 240 lock sites. America's "inland marine highways" move commerce to and from 38 states throughout the nation's heartland and Pacific Northwest, serve industrial and agricultural centers and facilitate imports and exports at gateway ports on the Gulf Coast.

Moving the nation's commodities

Waterways transport more than 60% of the nation's grain exports, about 22% of domestic petroleum and petroleum products and 20% of the coal used in electricity generation.

Barges are ideal for hauling bulk commodities and moving oversized or overweight equipment.

- Coal
- Iron & Steel
- Chemicals
- Petroleum
- Grain
- Aggregates
- Project Cargoes
- Intermodal Containers

Strengthening our economy

Every year, roughly 624 million tons of waterborne cargo transit the inland waterways, a volume equal to about 14% of all intercity freight and valued at nearly $70 billion.

Advantages of Inland Waterways Transport:

Moving Freight Efficiently Throughout America

Increasing Cargo Capacity

A typical cargo barge moves much more cargo than a single truck or rail car.

Modal Freight Use	Standard Capacity
Barge - Liquid Bulk	27,500 Barrels
Barge - Dry Bulk	1,750 Tons
Rail - Bulk Car	110 Tons
Highway Tractor-Trailer	25 Tons

Units to Carry 1,750 Short Tons of Dry Cargo

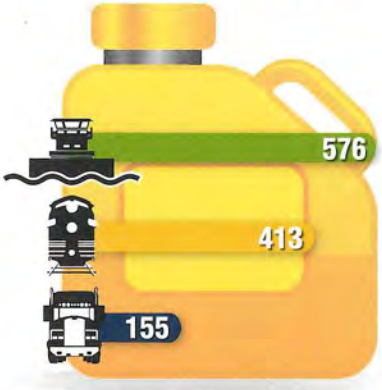
One loaded covered hopper barge carries 58,333 bushels of wheat, enough to make almost 2.5 million loaves of bread.

A loaded tank barge carries 27,500 barrels of gasoline, enough to keep about 2,500 automobiles running for an entire year.

Units to Carry 27,500 Barrels of Liquid Cargo

Moving Forward, Saving Energy

Transporting freight by water is the most energy-efficient choice.



Ton-miles Traveled per Gallon of Fuel

The most energy-efficient way to move commodities such as coal, grain, iron, steel, aggregates, petroleum and chemical products is to use the nation's navigable rivers. Barges can move one ton of cargo 576 miles per gallon of fuel. A rail car would move the same ton of cargo 413 miles, and a truck only 155 miles.

One Common Barge Tow Carries the Load of Hundreds of Rail Cars or Trucks

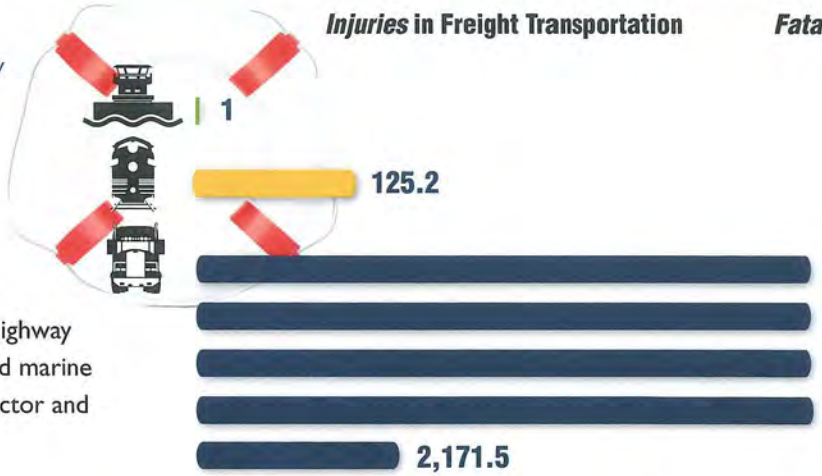
Advantages of Inland Waterways Transport:

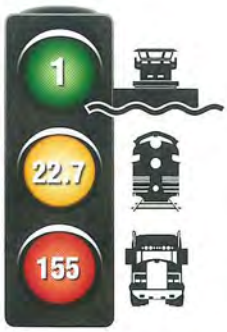
Safeguarding Our Health and the Environment

Maintaining Safety

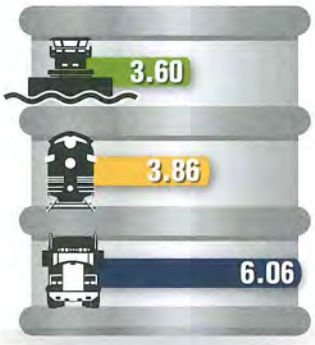
Inland waterways transport has a low injury and fatality record compared to rail or truck.

Safety-related statistics for all modes of freight transportation show one injury in the inland marine sector for every 125.2 in the rail sector and 2,171.5 in the highway sector, and one fatality in the inland marine sector for every 22.7 in the rail sector and 155 in the highway sector.





Rate of Spills in Gallons per Million Ton-miles

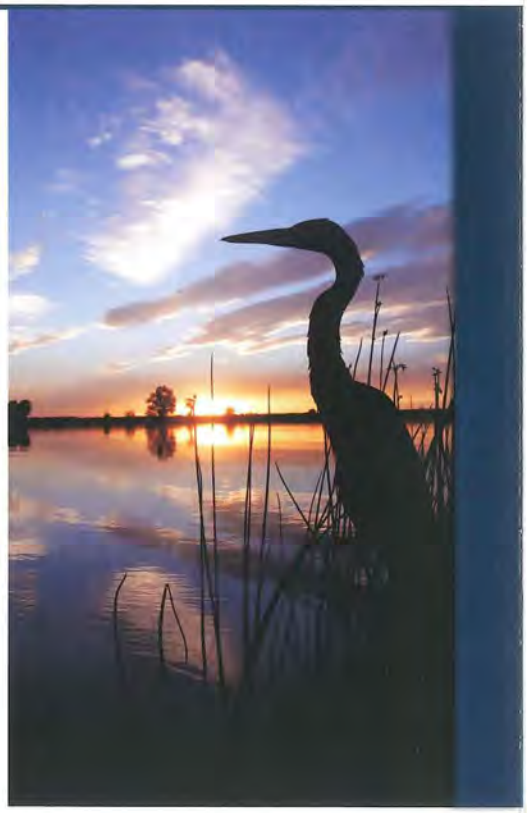


Spills of more than 1,000 gallons

Protecting Communities

Inland waterways transport moves hazardous materials safely.

All transport modes work hard to prevent accidents, human errors and other causes of spills, including groundings in the case of barge transportation. Overall, spill rates are very low – with trucks losing only 6.06 gallons per one million ton-miles, rail cars only 3.86 gallons and barges 3.6 gallons per one million ton-miles.



Ensuring Cleaner Air

Inland waterways transport generates fewer emissions than rail or truck.

The emission comparison between inland towing, rail and truck transportation shows that fewer air pollutants are generated by moving products on America's inland navigation system. These pollutants include:

- Particulate matter (PM)
- Hydrocarbons (HC)
- Carbon monoxide (CO)
- Nitrogen oxides (NOx)

Emissions (Grams/Ton-mile)

PM = Particulate matter ▪ HC = Hydrocarbons ▪ CO = Carbon monoxide ▪ NOx = Nitrogen oxides

America's Waterways Are Ready to Meet Growing Demands

Except for a few congested locks scheduled for replacement, our navigable inland waterways system has an abundance of unused capacity. Waterways will transport the bulk commodities needed today and tomorrow while also moving an increasing share of intermodal cargo in the years to come. By relieving growing transportation congestion with the least impact of any surface mode on air quality, public safety and the environment, waterways really are our transportation solution for the future.

This brochure summarizes the study titled "A Modal Comparison of Freight Transportation Effects on the General Public" by the Texas Transportation Institute, Center for Ports and Waterways. It was conducted over a one-year period and was peer-reviewed by independent university-based experts.

For the full report, visit our website:
www.nationalwaterwaysfoundation.org

NATIONAL WATERWAYS FOUNDATION

The mission of the National Waterways Foundation is to develop the intellectual and factual arguments for an efficient, well-funded and secure inland waterways system.

The Foundation needs your support. To find out how to get involved, learn how your organization can benefit from the foundation's research, or to make a tax-deductible donation, please call or visit our website.

This study was co-sponsored by the U.S. Department of Transportation Maritime Administration (MARAD).

National Waterways Foundation 801 North Quincy Street, Suite 200, Arlington, Virginia 22203
703.373.2261 | NWF@vesselalliance.com | **www.nationalwaterwaysfoundation.org**

Vision

The American Waterways Operators is the national advocate for the U.S. tugboat, towboat and barge industry, which serves the nation as the safest, most environmentally friendly and most economical mode of freight transportation.

Mission

The American Waterways Operators represents the people who own and operate the tugboats, towboats and barges serving the rivers, coasts, Great Lakes and harbors of the United States. AWO promotes the industry's value to the nation as a driver of the U.S. economy with a positive impact on the American quality of life, moving vital commodities safely, providing family-wage jobs, reducing air and water pollution, relieving highway congestion and protecting homeland security.

Values

AWO members:

- *Operate their companies and vessels in an ethical manner.*
- *Care for their employees and the public by working to improve the safety of their operations and the professionalism of their people.*
- *Care for the environment by working to protect and improve the quality of our nation's air and water.*
- *Supply creative, practical, and economical solutions to their customers' and the nation's transportation needs.*
- *Provide value to the nation, moving cargoes vital to the U.S. economy as the safest, most environmentally friendly and most efficient mode of freight transportation.*
- *Value member diversity and engage in cooperative endeavors for the betterment of the industry.*
- *Work collaboratively with government and other stakeholders to find solutions to issues of safety, security, the environment and freight mobility.*

Chairman's Message: An American Industry

George Foster
Chairman of the Board

The U.S. tugboat, towboat and barge industry is just that - an all-American industry. Vessels are American-owned, American-built and American-crewed, in accordance with the provisions of the Jones Act, a law that traces its origins to the days of our nation's Founding Fathers. Today, we can still appreciate the wisdom behind the notion that vessels carrying commerce between U.S. ports be owned, built and crewed by Americans. The tugboat, towboat and barge industry comprises the largest segment of the U.S. domestic vessel fleet and plays an important role in ensuring our nation's economic vitality, environmental protection, national security and quality of life.

I am a small business owner, not unlike many other members of AWO. My company, JB Marine Service, is a barge cleaning and repair service headquartered in St. Louis Harbor. My partner and I started the company in 1976 as a barge fleeting and switching service and I bought the company outright in 1999. Today, JB Marine Service owns four dry docks, a machine shop, eight tugboats, five floating cranes, and employs over 100 people in my community. I have been in this industry for nearly my whole life. I know it well and I care about it deeply.

The vessels operated by AWO members are American-owned, American-built and American-crewed.

Interestingly, this all-American industry that moves cargoes vital to the U.S. economy is comprised of many small to medium-sized family-owned businesses like mine. Our industry employs tens of thousands of Americans in good-paying, family-wage jobs and provides career opportunities to men and women who want to learn a trade and appreciate the flexible lifestyle and chance for advancement through the ranks to jobs with the most responsibility and highest pay. Many employees also say they love being part of a team, and that crewmembers often seem more like family than coworkers.

The industry in which AWO members like me are proud to make our living is essential to U.S. economic vitality because it transports bulk commodities that are the building blocks of our economy, including millions of tons of coal to

power plants for electricity, petroleum products to fuel our vehicles and airplanes and heat our homes, chemicals essential to our industries, iron ore to steel manufacturing plants, concrete for construction projects and salt and sand for winter roads. America's industries depend on economical and safe barge transportation. Without barge transportation, the prices of key commodities would be much higher. In many instances, there is simply no viable alternative to barge transportation of essential bulk commodities.

AWO members value their employees and continuously work to improve the safety of their operations and the professionalism of their people. They provide safety training to every level of employee and "walk the walk" on the importance of safety to protect people, property and the environment. All AWO members must

comply with the Responsible Carrier Program, a safety and environmental protection program that requires companies to have policies and procedures in place that cover every aspect of vessel operations, including maintenance and crew training. Third-party audited compliance with the RCP is required as a condition of AWO membership, and AWO has supported the U.S. Coast Guard in proposing new safety inspection rules to further improve our industry's safety performance.

The tugboat, towboat and barge industry is not only the safest, but also the most environmentally friendly mode of freight transportation. The efficiency of tugboats and towboats results in less air pollution. Barging is the fuel-efficient choice; a barge tow can move a ton of cargo much farther per gallon of fuel than rail or truck. All modes of transportation have their place in our intermodal system, but the enormous carrying capacity of barges benefits all Americans, alleviating highway congestion by keeping thousands more trucks off already crowded highways. AWO members care about the environment, and work to protect and improve the quality of our nation's air and water by upgrading their equipment to include state-of-the-art technology, providing ongoing safety training to employees and continuously improving the safety of their operations.

One of the great things about this industry is the way companies that are vigorous competitors in the marketplace come together to cooperate for the betterment of our industry and our country. AWO has a proud history of working with government and private sector stakeholders to find solutions to issues of safety, security, the environment and freight mobility. We are proud of our collaborative nature and our reputation for safety leadership. Above all, we are proud to be an all-American industry.

Jeff L. Yates ©2007

Executive Committee

George Foster
Chairman of the Board
JB Marine Service, Inc.
St. Louis, MO

Peter Stephaich
Vice Chairman of the Board
Campbell Transportation Co., Inc.
Pittsburgh, PA

Tim Casey
Immediate Past Chairman of the Board
K-Sea Transportation Corp.
East Brunswick, NJ

Capt. Alan Bish
Reinauer Transportation Company
Staten Island, NY

The American Waterways Operators was founded in 1944.

Larry Daily
Alter Barge Line, Inc.
Bettendorf, IA

Robert A. Fry
Kinder Morgan Ship Channel Services, LLC
Pasadena, TX

Dan Jaworski
American Commercial Lines, Inc.
Jeffersonville, IN

Merritt Lane
Canal Barge Company, Inc.
New Orleans, LA

Michael Luhr
Luhr Bros., Inc.
Columbia, IL

Buckley McAllister
McAllister Towing
New York, NY

Lee Nelson
Upper River Services
St. Paul, MN

John Pigott
Tidewater Barge Lines, Inc.
Vancouver, WA

David G. Sehrt
Ingram Barge Company
Nashville, TN

Board of Directors

George Foster
Chairman of the Board
JB Marine Service, Inc.
St. Louis, MO

Peter H. Stephaich
Vice Chairman of the Board
Campbell Transportation Co., Inc.
Pittsburgh, PA

Timothy J. Casey
Immediate Past Chairman of the Board
K-Sea Transportation Corp.
East Brunswick, NJ

Gene Autry
Bay-Houston Towing Co.
Houston, TX

William R. Barr
Amherst Madison, Inc.
Charleston, WV

Capt. Alan Bish
Reinauer Transportation Company
Staten Island, NY

Mark Bourgeois
LeBeouf Bros. Towing, L.L.C.
Houma, LA

Larry Daily
Alter Barge Line, Inc.
Bettendorf, IA

Stephen Dann
Dann Ocean Towing, Inc.
Tampa, FL

Z. David DeLoach
DeLoach Marine Services
Port Allen, LA

Joseph A. Devall
Devall Towing & Boat Service, Inc.
Hackberry, LA

John Douglass
Crowley Maritime Corporation
Jacksonville, FL

Tommy Echols
Echo Marine, Ltd./
Echo Towing Service Inc.
Baytown, TX

Cherrie Felder
Channel Shipyard Company, Inc.
Metairie, LA

Mark Flynn
Higman Marine Services, Inc.
Houston, TX

Robert A. Fry
Kinder Morgan Ship Channel
Services, LLC
Pasadena, TX

C. Barry Gipson
McNational, Inc.
Hartford, IL

Cathy Hammond
Inland Marine Service
Hebron, KY

Roger Harris
Magnolia Marine Transport
Company, Inc.
Vicksburg, MS

Charles Haun
Parker Towing Company, Inc.
Tuscaloosa, AL

Frederick Iuliucci
The Vane Brothers Company
Philadelphia, PA

Donald Ivins
Express Marine, Inc.
Pennsauken, NJ

J. Paul Janoush
JANTRAN, Inc.
Rosedale, MS

Dan Jaworski
American Commercial Lines
Jeffersonville, IN

R. Russell Johnson
Dunlap Towing
Everett, WA

H. Merritt Lane III
Canal Barge Company, Inc.
New Orleans, LA

Richard Lauer
Sause Bros.
Portland, OR

George G. Leavell
Wepfer Marine, Inc.
Memphis, TN

Michael Luhr
Luhr Bros., Inc.
Columbia, IL

Brendan MacGillivray
Seaboats, Inc.
Portsmouth, RI

Buckley McAllister
McAllister Towing
New York, NY

Darren Melvin
Hanson Material Service
Romeoville, IL

Frank Morton
Turn Services, Inc.
New Orleans, LA

Lee Nelson
Upper River Services
St. Paul, MN

Brent Nissen
American River Transportation Co.
St. Louis, MO

Frederik A. Nyhuis
Marathon Petroleum Company LLC
Catlettsburg, KY

Jeffrey Parker
Allied Transportation Company
Norfolk, VA

James W. Patterson
Osage Marine Services Inc
St. Louis, MO

John Pigott
Tidewater Barge Lines, Inc.
Vancouver, WA

Steve Scalzo
Marine Resources Group
Seattle, WA

David G. Sehrt
Ingram Barge Company
Nashville, TN

Ric Shrewsbury
Western Towboat Company
Seattle, WA

Rich Smith
Westar Marine Services
San Francisco, CA

Mike Somales
CONSOL Energy Sales Company
Monessen, PA

Gregg Thauvette
The Great Lakes Group
Cleveland, OH

Paul Tobin
AEP River Operations
Chesterfield, MO

Clark A. Todd
Blessey Marine Services, Inc.
Harahan, LA

Edward J. Tregurtha
Moran Towing Corporation
New Canaan, CT

William M. Waterman
Penn Maritime, Inc.
Stamford, CT

Ted Waxler
SCF Waxler Marine LLC
Memphis, TN

Matt Woodruff
Kirby Corporation
Houston, TX

President's Report: AWO Members - Energized, Engaged, Extraordinary

Thomas A. Allegretti
President & CEO

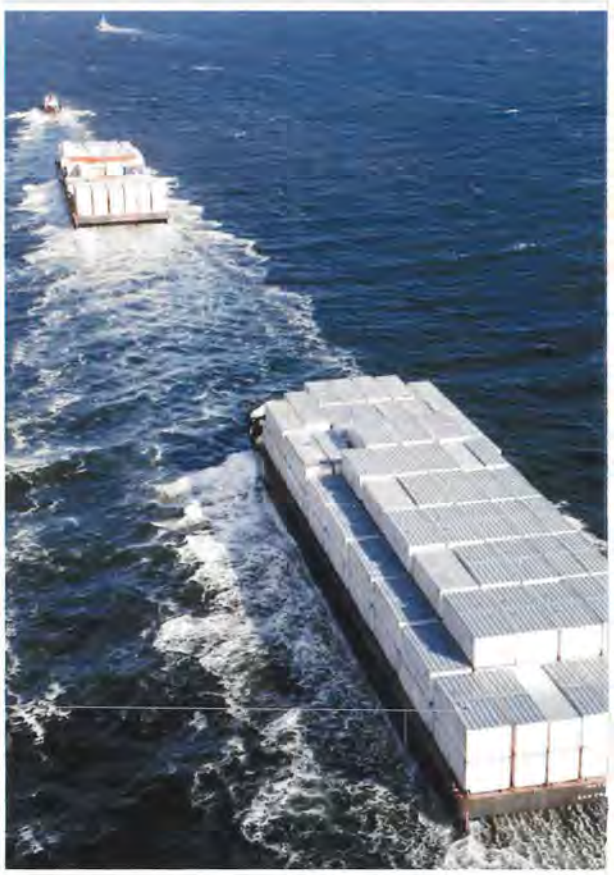
AWO began 2010 with a strong spirit of optimism and confidence – an optimism undeterred by the difficult market conditions facing AWO members and a confidence grounded in the assessment that the trade association was stronger than ever and that the value AWO members derive from their investment in the association was higher than ever before. Little did we know at the start of the year that these judgments would be tested like never before.

2010 was a year in which all of the advocacy strengths of our industry, all of its financial and human capacity, and all of its creativity, ingenuity and persistence, were fully tested as the congressional reaction to the *Deepwater Horizon* oil spill unleashed a torrent of legislative proposals. Many of these proposals would have had impacts far beyond the offshore drilling industry and done great harm to the owners of American tugboats, towboats and barges whose operations had no connection to the Gulf spill. The scope and intensity of the industry's defensive effort was unlike any seen in recent memory, perhaps in our entire history. We ultimately emerged from the year successful in blocking the enactment of these harmful and unnecessary provisions.

In the twenty years since the passage of the Oil Pollution Act of 1990, there has been a 99.6% decrease in tank barge spills.

AWO's response to this unexpected onslaught showed the mettle of our industry and its association in all of its components – member direction and engagement, staff ingenuity and persistence, and the commitment of our industry's friends in Congress, who were steadfast in their support and protection. The industry's performance in successfully addressing this grave and unprecedented challenge was nothing short of magnificent.

We faced this most serious threat while simultaneously managing an agenda of public policy issues more consequential than at any time in our industry's modern era, and with the backdrop of a national landscape of uncertainty and churn and a widening philosophical gap between the two political parties. The shifting sands of that landscape were confirmed with the national elections in November, which brought a new political party to power in the House, saw the electoral defeat of many longstanding industry friends in Congress and set the stage for the installation of the new Congress whose composition is more than one-fifth brand new members. For a small industry like ours, the challenge of education and relationship-building that derives from these changes is enormous.



One of the most prominent lessons of 2010 reinforced what we already knew – the importance of having a strong reservoir of advocacy capacity, and constantly growing that capacity and effectiveness through the combined efforts

of engaged and energetic member-leaders, passionate member advocates and a strong staff. This combination was, and will continue to be, indispensable to our success. Our experience in simultaneously handling the *Deepwater Horizon* reaction and the large agenda of high-stakes issues tells us that we must be nimble enough to both play an effective game of defense and an aggressive game of offense. Had the "AWO Army" that Chairman George Foster mobilized not been on the field of battle in full strength, the year would have surely ended in a decidedly less positive way.

2010 was also characterized by an intense and continuing focus to achieve goals that are constants for AWO. There are three major quests in which AWO is continuously engaged – quests that transcend the issue of the day and the controversy of the moment:

- The quest for value
- The quest for excellence, and
- The quest to be the master of our own destiny.

The quest to provide AWO members with increased value is embedded in the association's DNA. We have an organizational ethic of commitment to continuous improvement. We are driven to produce results, on a continuing basis, that enhance our value and make it easier for members to support the association through their financial contributions and their personal engagement in AWO's work. We never take that support and engagement for granted.

AWO is also an organization that is genuinely committed to excellence in its work, across all fronts – advocacy, analysis and administration. We are intolerant of lapses below that standard and we are our own harshest critics when we fail to achieve excellence.

The third major constant that drives AWO's work is the quest to define our future – to be the master of our own destiny. There is no doubt that trade associations must be reactive, as the *Deepwater Horizon* imbroglio reminds us. But, effective reaction by itself is insufficient. A distinguishing characteristic of AWO is that our member-leaders think down the road to the challenges of the future, and consider what we must do as an industry not only to prepare for those future challenges, but to actually shape them. This kind of thinking is now embedded in the fabric of our industry and our association. In 2011, the road map that results from the work of the Task Force on the Future of AWO Safety Leadership will define our next frontier in the quest to be the master of our own destiny.

Waterways transportation is the most environmentally-friendly mode of freight transportation.

AWO is an extraordinary and fortunate organization. We are characterized by attributes and values that are important to the nation and the U.S. economy. We are personified by successful businessmen and community leaders like Chairman Foster, who started with very little 40 years ago and today provides good, family-wage jobs to over 100 people in his city. We are fortified by the knowledge that while the challenges facing us have never been greater, our capacity for success has never been stronger. We end the year as we began it, with optimism and confidence.

The tugboat, towboat and barge industry provides family-wage jobs for hardworking Americans; jobs that cannot be outsourced.

Jobs: Making a Positive Impact

Barges, inland river towboats and coastal tugboats are the largest sector of the U.S. commercial maritime industry. The U.S. domestic fleet includes more than 40,000 vessels, making it one of the largest fleets in the world. The domestic maritime industry:

- **Provides 500,000 quality jobs for Americans**
- **Generates $100.3 billion in economic output**
- **Contributes $29.1 billion in labor compensation**
- **Pumps $11.4 billion in taxes into federal and state treasuries**

The tugboat, towboat and barge industry is the largest provider of on-board jobs in the U.S. domestic fleet and a critical component of the U.S. freight transportation network. Barges move bulk commodities safely and securely, away from population centers and off congested roadways.

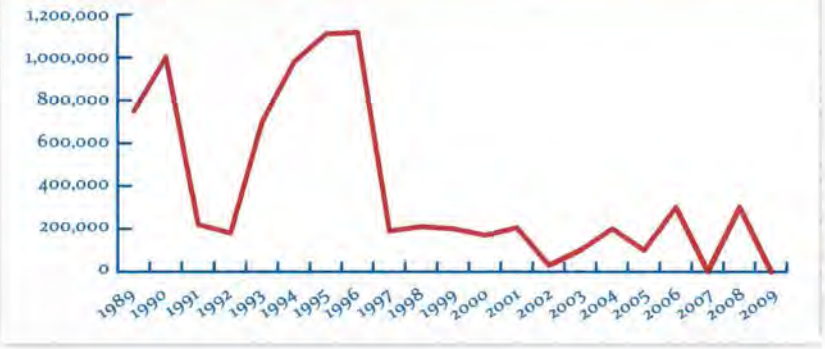
SECURITY

The tugboat, towboat and barge industry is essential to America's economic strength and its homeland security. Federal law, known as the Jones Act, requires that vessels moving cargo between U.S. ports be owned by American citizens, built in American shipyards and crewed by American mariners. Barges and towing vessels operate on navigable waterways throughout the United States, and the men and women who crew those vessels serve as the eyes and ears for the U.S. Coast Guard in helping to protect our coastline and the heartland of America. The Jones Act, which ensures the American character of the U.S. domestic fleet, has enjoyed the support of the U.S. Navy, members of Congress of both parties, and every U.S. president in modern history.

Safe: Oil Spills at an All-Time Low

There has been a 99.6% decrease in tank barge spills in the 20 years since the passage of the Oil Pollution Act of 1990, the best spill rate in the transportation sector. In 2009, the last year for which complete statistics are available, tank barges recorded their lowest spill volume ever. AWO is committed to working with the Coast Guard and Congress to implement prevention measures - from double hulls to tankerman training to safety management systems - as we continue to strive toward the goal of zero spills.

Gallons of Oil Spilled From Tank Barges, 1989-2009



Tank barge oil spills in 2009 reached the lowest levels since 1973, when Coast Guard recordkeeping began.

AWO Responsible Carrier Program and Towing Vessel Inspection

The AWO Responsible Carrier Program (RCP) is a third-party audited safety management system with which all AWO members must comply as a condition of association membership. Developed in 1994, the RCP exceeds federal regulatory standards and provides guidelines for vessel management, operation, equipment and crewing.

Building on the success of the Responsible Carrier Program, in 2004, AWO supported the U.S. Coast Guard in seeking new legislative authority to establish a towing vessel inspection regime including a safety management system requirement. AWO has worked closely with the Coast Guard through the congressionally established Towing Safety Advisory Committee to implement the new requirements.

The U.S. Coast Guard-AWO Safety Partnership

Established in 1995, the Coast Guard-AWO Safety Partnership, the first public-private partnership of its kind, continues to serve as a vital component of AWO's efforts to promote safety and environmental stewardship in the tugboat, towboat and barge industry. The Partnership has launched more than 30 Quality Action Teams to address safety and environmental challenges in the industry. In 2010, the Partnership focused its efforts on promoting crew endurance in the 24/7 world of barge and towing vessel operations and paving the way for a smooth transition to towing vessel inspection. Through the Towing Vessel Bridging Program, the Coast Guard has conducted more than 2,600 industry-initiated towing vessel examinations, helping the industry prepare for the forthcoming inspection requirements.

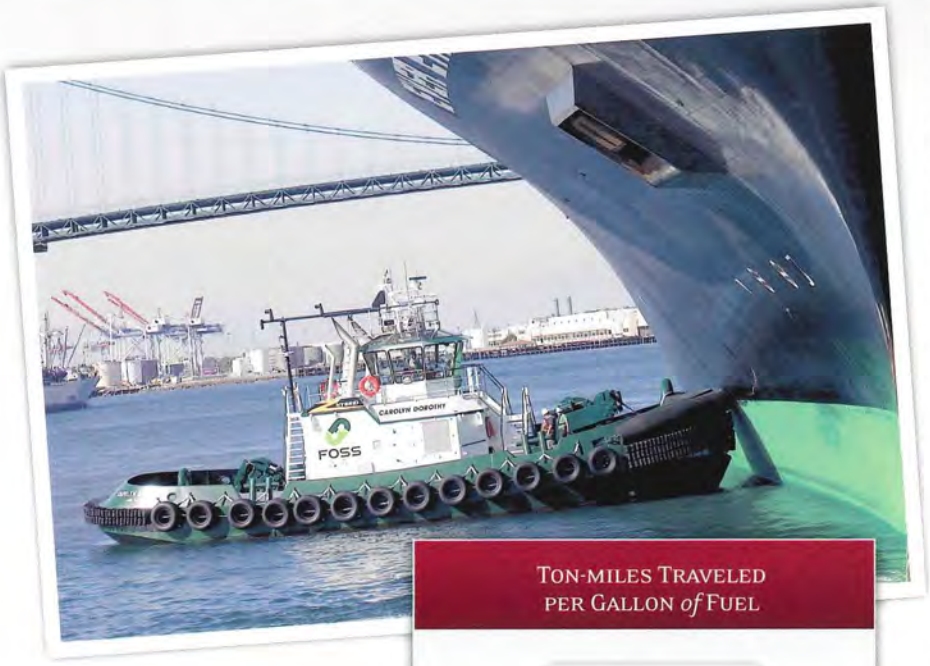
The Partnership also continued its efforts to encourage adoption of science-based Crew Endurance Management System (CEMS) principles to enhance crew alertness. Cutting-edge research by Northwestern University's Center for Sleep and Circadian Biology builds on studies conducted for NASA and shows promise for building on the CEMS foundation to enhance crew safety within standard industry watch schedules. That groundbreaking research continues in 2011.

A New Initiative in Safety Leadership

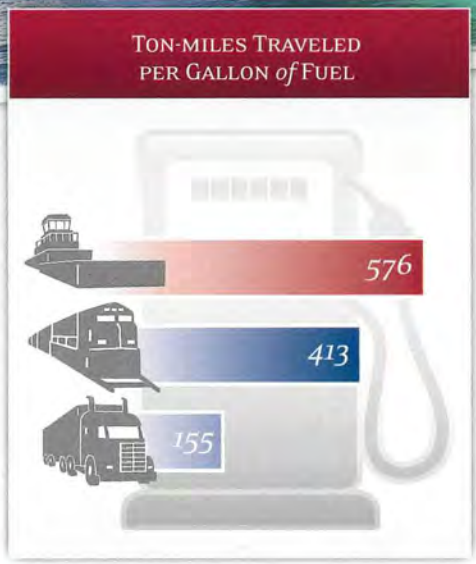
AWO's strategic plan, *AWO 21*, affirms AWO's commitment to safety leadership and calls on the association to "lead and support AWO members in continuously improving safety, security and environmental stewardship." In 2010, AWO established a senior-level task force on the Future of AWO Safety Leadership to develop a new vision of industry safety leadership and a work program to achieve it. The task force is consulting with safety experts from the Coast Guard, the National Transportation Safety Board, industry customers and other experts to define what it means for AWO and AWO members to lead the industry in safety and environmental stewardship today and over the next decade. The most significant AWO safety initiative since development of the Responsible Carrier Program, this work will continue in 2011.

The tugboat, towboat and barge industry comprises the largest segment of the domestic U.S.-flag fleet, providing economic, national and homeland security for America.

Clean: Focused on Protecting the Environment



The tugboat, towboat and barge industry is the most environmentally-friendly mode of freight transportation. The fuel efficiency of tugboats and towboats results in fewer hydrocarbons entering the air. State-of-the-art vessels, including those with emissions reduction engines, and a new hybrid tug, contribute to the protection of the environment and hold promise for even greater environmental protection in the near future.



Barging contributes to Americans' safety and quality of life by reducing highway congestion. The enormous capacity of barges means thousands fewer trucks on the highways. And barges carry hazardous cargoes on the nation's waterways, away from population centers.

Waterways transportation contributes to the American quality of life by helping to reduce congestion on roads and rails.

The U.S. Department of Transportation has projected that the demand for commercial waterways transportation will more than double by 2025. America must invest in its aging waterways infrastructure to handle that increase.

Economy: TRANSPORTING AMERICA'S PRODUCTS RELIABLY

Freight movement is the lifeblood of the U.S. economy and no mode of freight transportation is more efficient and cost-effective than barge transportation. Barge transportation provides family-wage jobs for Americans and a low-cost, safe and efficient way to transport the building blocks of the U.S. economy to the marketplace -- coal to power plants, iron ore to steel mills, petroleum products to oil refineries and chemicals for industrial use. Barging also helps foster fair trade. For example, economical barge transportation helps American farmers by providing a reliable, low-cost way to transport 60% of America's grain for export, helping them remain competitive with heavily subsidized foreign producers.

National leaders from across the political spectrum recognize the importance of exports to the U.S. economy. In his 2010 State of the Union speech, President Barack Obama laid out the ambitious goal of doubling U.S. exports in five years.

For this vision to become a reality, our intermodal freight transportation system must be expanded and improved. In order to continue to reap the benefits of barge transportation to the nation, the U.S. must invest in modernizing and properly maintaining the waterways infrastructure. Many locks and dams that affect efficiency and safety are over 60 years old, well past their expected life span. AWO has joined with other stakeholders, including Waterways Council, Inc., and the National Waterways Conference, to advocate for a long-range strategic plan to invest in the waterways infrastructure needed to support export growth.

"We need to export more of our goods. Because the more products we make and sell to other countries, the more jobs we support right here in America. We will double our exports over the next five years, an increase that will support two million jobs in America."

President Barack Obama
State of the Union speech
January 27, 2010

More than half of America's grain exports move by barge along the nation's inland waterways, accounting for $10 billion in exports.


LEADER
CH 984
Jeff L. Yates © 2006

2010: Major Issue Challenges and Objectives

By 2015, all tank barges carrying oil in U.S. waters will have double hulls.

- Raise public awareness of the tugboat, towboat and barge industry's value to the nation.
- Promote AWO Responsible Carrier Program compliance and assist AWO members in being marine safety leaders.
- Prepare for Coast Guard notice of proposed rulemaking on towing vessel inspection.
- Secure improvements to the inland waterways infrastructure project delivery process to maintain waterways transportation efficiency and benefits to the nation.
- Secure a uniform and practical national approach to regulation of ballast water and other vessel discharges.
- Ensure a practical, science-based approach to crew endurance, work and rest issues.
- Prevent erosion of the Jones Act.
- Eliminate the unnecessary requirement for a second trip to the TWIC enrollment center.
- Ensure that vessel operations are regulated and governed by the federal government.

AWO Staff

Thomas A. Allegretti
President & CEO

Jennifer A. Carpenter
Senior Vice President - National Advocacy

Lynn M. Muench
Senior Vice President - Regional Advocacy

Anne Davis Burns
Vice President - Public Affairs & Communications

Robert L. Clinton
Vice President - Safety

Christopher A. Coakley
Vice President - Legislative Affairs

Lynn M. Craig
Vice President - Finance & Administration

Nicole E. deSibour
Vice President - Atlantic Region

Charlie P. Costanzo
Vice President - Pacific Region

Mark A. Wright
Vice President - Southern Region

Debbie A. Manduzio
Coordinator - Finance & Administration

Mary C. Mills
Office Manager & Receptionist

Vickie M. Hammond
Assistant to the President

Jayson C. Larner
Coordinator - Information Technology & Training

Ashley M. Smith
Coordinator - Meetings & Membership

Robert A. McCaw
Government Affairs Associate

Brittany F. Meyer
Government Affairs Associate

Caitlyn E. Stewart
Government Affairs Associate

Brian W. Vahey
Government Affairs Associate

Katelin K. Walker
Government Affairs Assistant

PHOTOGRAPHY: Jeff L. Yates - *www.TowboatPhotography.com* | Frank Doering - *www.DoeringPhoto.com* | CREATIVE: Howell Creative Group

2010 Annual Report

The American Waterways Operators

The National Trade Association of the Inland and Coastal Tugboat, Towboat and Barge Industry

801 North Quincy Street, Suite 200 | Arlington, Virginia 22203 | (703) 841-9300 | www.americanwaterways.com

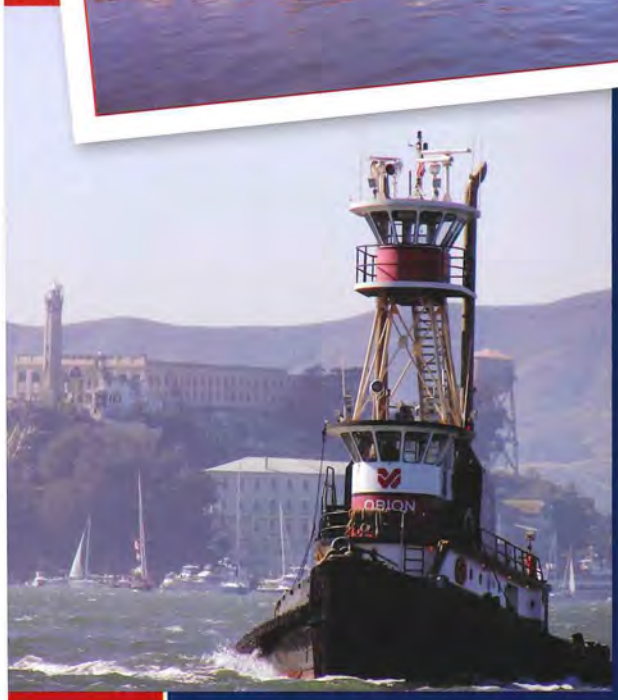
The American Waterways Operators

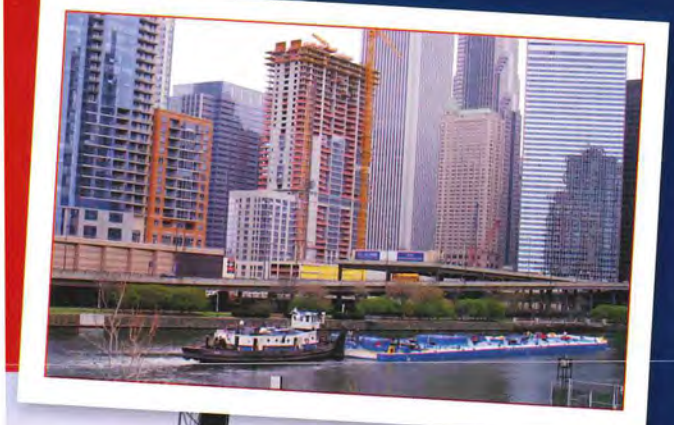
America's Tugboat, Towboat and Barge Industry

Moving America

The U.S. tugboat, towboat and barge industry is a vital segment of America's transportation system. The industry safely and efficiently moves over 800 million tons of cargo each year on our nation's coastal and inland waterways, including:

- More than 60% of U.S. export grain
- Energy sources such as coal and petroleum
- Bulk commodities that are the building blocks of the U.S. economy





Helping to Advance America's Priorities

Serving the Entire Nation

The industry consists of nearly 4,000 tugboats and towboats and over 27,000 barges. With operations along our nation's 25,000 miles of inland and intracoastal waterways, and the Atlantic, Pacific and Gulf coasts, the industry makes a vital contribution to America's economy, environment and quality of life.

Strengthening U.S. Exports

More than 60% of U.S. grain exports to world markets begin their journey on river barges along the nation's inland waterways. The cost efficiency of barge transportation helps American exports stay competitive in global markets. This is critical for American farmers, who compete with subsidized foreign agriculture producers.

Moving Energy for America

Energy is the lifeblood of the American economy, and barge transportation keeps vital energy sources flowing efficiently and economically. More than 20% of the oil and petroleum products used to fuel our industrial base and high-tech economy moves by barge. Barges move much of the coal that warms our homes and keeps the lights on for business and commercial customers. And, ship-docking tugs allow huge oceangoing ships to enter U.S. harbors safely, bringing much-needed energy supplies to our shores.

Providing U.S. Jobs

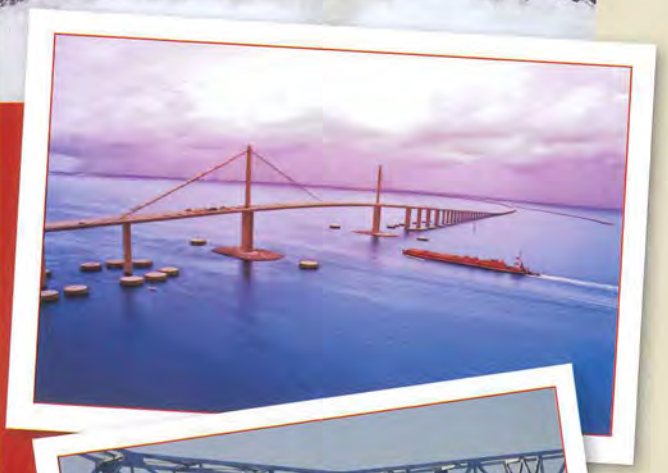
The tugboat, towboat and barge industry provides good paying, family-wage jobs and career opportunities for Americans. The industry employs more than 33,000 men and women aboard its vessels; another 30,000 Americans are employed in the U.S. shipyards that build, repair and maintain the industry's vessels. In addition, as many as 4 million American workers are employed in industries that rely on materials delivered by barge.

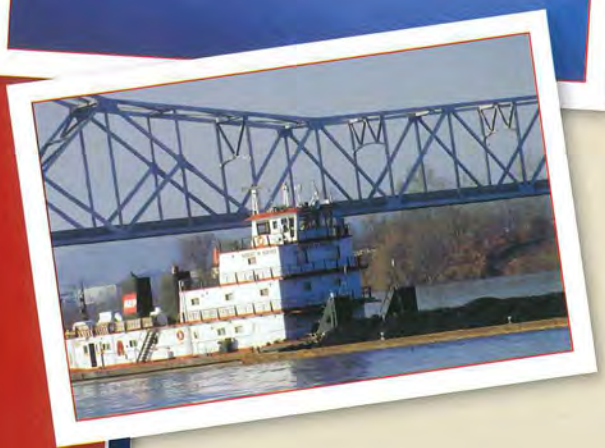
Contributing to America's Bottom Line

The barge industry pays a combined yearly total of more than $750 million in payroll and corporate income taxes to federal and state treasuries, and produces a total positive impact of over $5 billion each year to the U.S. economy.

Enhancing National Security

The tugboat, towboat and barge industry comprises 80% of the domestic U.S.-flag fleet. American-owned, American-built and American-crewed vessels ensure U.S. economic security by keeping vital commerce flowing, and U.S. citizen crews serve as the "eyes and ears" of the waterways, leveraging government homeland security resources.





Historic New Vessel Inspection Program

In order to take industry safety to the next level, AWO approached the Coast Guard and urged the agency to seek legislative authority to establish a new, first-ever inspection program for towing vessels. Since 2004, AWO has worked with the Coast Guard to implement the legislation passed by Congress. This is a historic step for the industry, demonstrating its commitment to safe operations and the protection of people, property and the environment.

Regulated by the U.S. Coast Guard

The industry is regulated by the Coast Guard and is subject to strict rules regarding safe operations and environmental protection, including pollution prevention equipment, navigation and safety gear, and personnel licensing and training.

All tank barges must be equipped with double hulls by the year 2015; already 85% of tank barges have double hulls, well ahead of schedule.

Coast Guard-AWO Safety Partnership

Since 1995, AWO has had a formal Safety Partnership with the U.S. Coast Guard, the first of its kind between the Coast Guard and any segment of the U.S. maritime industry. Founded on the recognition that the industry and the Coast Guard share a common interest in ensuring high standards of safety and environmental protection, the Partnership is a model of government-industry cooperation. It has established more than 35 Quality Action Teams to tackle the most pressing industry safety issues and continues to take the lead in developing real solutions to safety and environmental concerns.

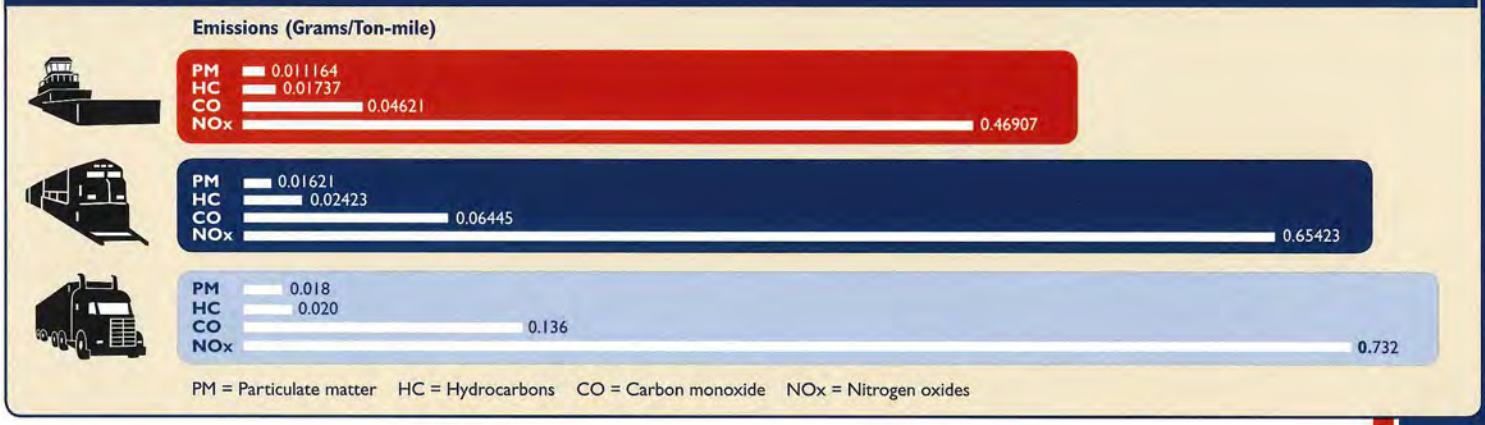
Safety Leadership

AWO members have demonstrated their strong commitment to safety and environmental protection by creating the industry's own code of safety best practices, the AWO Responsible Carrier Program (RCP). The RCP requires company safety standards that exceed those required by federal law or regulation. All AWO companies must undergo periodic independent audits to prove their compliance with the program or forfeit their membership in AWO. The program has been lauded by many groups, including the U.S. Coast Guard and major shipper organizations.

AWO's Coastal and Interregion Safety Committees bring working safety professionals together to address safety challenges and develop safety tools for the industry, such as sample policies and procedures, training materials and "lessons learned" to prevent accidents and pollution.

Tank barge oil spills have decreased by 85% over the past decade.

Ensuring Cleaner Air



Providing a Crucial Transportation Link

Barge transportation is an increasingly important link in America's intermodal transportation network. For example, petroleum products from Gulf Coast refineries are transported by pipeline to New York and barged to New England power plants, where they provide electricity, heat homes and keep industry moving. The strength of these intermodal links is critical to the flow of America's commerce.

Wanted: A 21st-Century Waterways Infrastructure

America's system of safe, cost-efficient inland waterways transportation is the envy of the world. The demand for waterborne commerce will more than double by the year 2025. Given the diverse and widely shared benefits of a sound waterways infrastructure, modernization and maintenance of the inland locks and dams system is a sound investment. The challenge is acute: Many of the nation's locks and dams are over 60 years old and too small to efficiently accommodate the large, multi-barge tows that transit them daily.

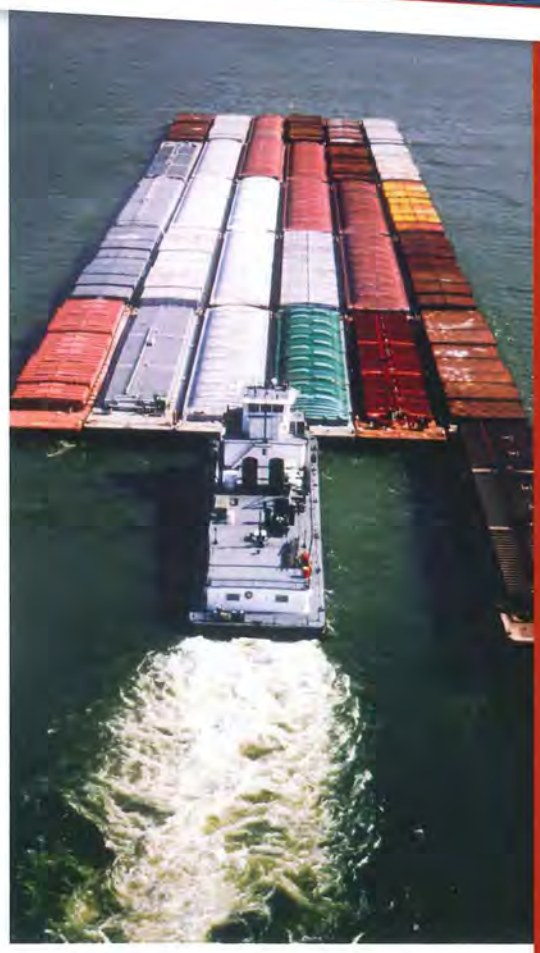
The barge industry pays nearly $100 million a year in fuel taxes to the federal Inland Waterways Trust Fund. Through the trust fund, the industry pays for 50 percent of the cost of constructing lock and dam replacements and other waterways improvements. America needs to develop a strategic vision for its intermodal transportation system and a commitment to invest in the infrastructure – including waterways infrastructure – needed to maintain global competitiveness.

The demand for waterborne commerce will more than double by the year 2025.

The American Waterways Operators
America's Tugboat, Towboat and Barge Industry

As the national trade association for the U.S. tugboat, towboat and barge industry, AWO is the principal advocate for the industry in Washington, D.C. and in the states with policymakers and regulators. For over 60 years, AWO has promoted a greater understanding of the vital, safe and environmentally sound contribution made by the domestic waterways transportation industry to the U.S. economy.

Organized in Washington, D.C. in 1944, AWO has over 300 member companies that serve the diverse needs of U.S. shippers and consumers. AWO members operate throughout the United States on America's rivers and canals, in its ports and harbors, on the Great Lakes, and on the Atlantic, Pacific and Gulf coasts.



AWO's Values

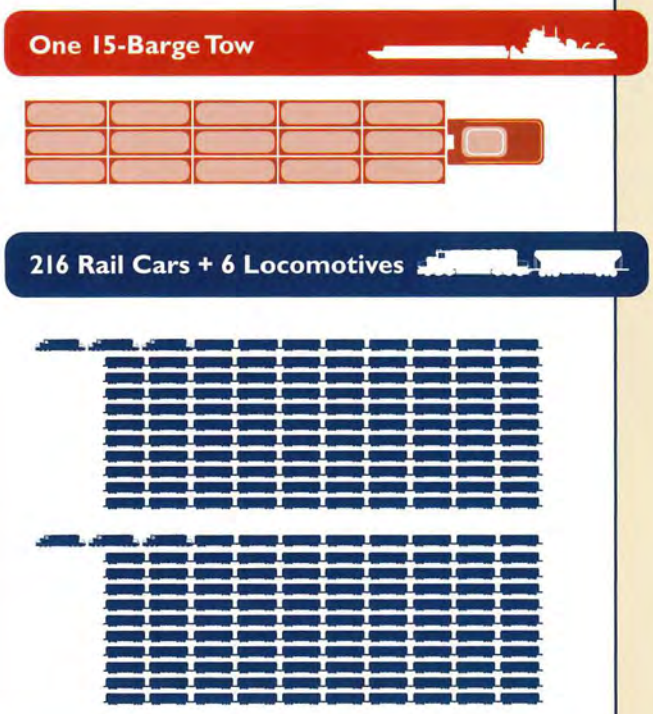
AWO Members:

- recognize the fundamental responsibility to operate their companies in an ethical, safe, secure and environmentally responsible manner that benefits their employees, their customers, the public and the environment
- embrace continuous improvement in safety and environmental performance and compliance with safety management systems such as the Responsible Carrier Program
- recognize that the waterways of the U.S. are a national asset and a shared resource requiring stewardship and improvement
- constructively engage the public policy process on matters that affect safety, security, the environment, the communities in which we operate and the economic soundness of the industry
- continue the industry heritage of cooperation, draw strength from member diversity and support initiatives that fortify the industry and foster achievement of its goals

The American Waterways Operators
The National Association of the Tugboat, Towboat and Barge Industry
801 North Quincy Street, Suite 200 • Arlington, VA 22203 • (703) 841-9300 • www.americanwaterways.com
Our Compass Always Points to Safety.

Creative: Howell Creative Group

One Common Barge Tow Carries the Load of Hundreds of Rail Cars or Trucks



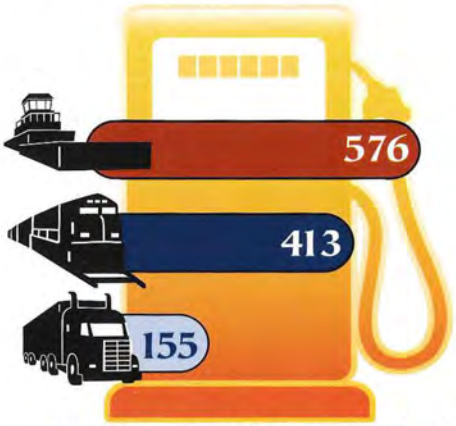
Easing Congestion

Clean, air-friendly waterways transportation is vital to easing congestion on our clogged highways and overburdened rail networks. The environmentally minded barge industry predominantly operates away from population centers, and has the least number of accidents of any transportation mode.

Waterways transportation contributes to our quality of life by helping reduce congestion on roads and rails.

Protecting the Environment

The tug and barge industry is the most environmentally friendly mode of surface transportation due to the tremendous fuel efficiency of tugboats and towboats. This energy efficiency results in the environmental benefits of less air pollution and less noise. In fact, barges produce the least amount of air pollution of all commercial transportation modes.



Ton-miles Traveled per Gallon of Fuel

One gallon of fuel moves a ton of cargo 576 miles by barge. That same one-ton load would only move 155 miles per gallon by truck and 413 miles by rail.

The American Waterways Operators
www.americanwaterways.com

801 North Quincy Street
Suite 200
Arlington, VA 22203

PHONE: (703) 841-9300
FAX: 703) 841-0389
E-MAIL: jcarpenter@vesselalliance.com

Jennifer Carpenter
Senior Vice President - National Advocacy

December 4, 2009

Docket Management Facility
U.S. Department of Transportation
West Building Ground Floor
Room W12-140
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re.: Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters (Docket ID No. USCG–2001–10486)

Dear Sir or Madam:

On behalf of the American Waterways Operators (AWO), thank you for the opportunity to comment on the notice of proposed rulemaking (NPRM) establishing standards for living organisms in ships' ballast water discharged in U.S. waters.

AWO is the national trade association for the inland and coastal tugboat, towboat and barge industry. AWO's 300 member companies include the owners and operators of barges and towing vessels operating on the U.S. inland and intracoastal waterways; the Atlantic, Pacific, and Gulf coasts; and, the Great Lakes. Our industry's 4,000 towing vessels and 27,000 barges comprise the largest segment of the U.S.-flag domestic fleet, both in number of vessels and on-board crew positions. Each year, the towing industry safely and efficiently moves more than 800 million tons of cargo critical to the U.S. economy, such as coal, grain, petroleum products, chemicals, steel, aggregates and containers. Tugboats also provide essential services including shipdocking, tanker escort and bunkering in our nation's ports and harbors.

AWO members are proud to be part of an industry that is the safest and most fuel-efficient, and has the smallest carbon footprint, of any surface transportation mode. We are deeply committed to building on the natural advantages of marine transportation and leading the development of higher standards of marine safety and environmental protection. In 1994, AWO became the first transportation trade association to adopt a code of safe practice and environmental stewardship for member companies. Today, compliance with the Responsible Carrier Program (RCP) is a condition of AWO membership, and members undergo independent third-party audits every three years to demonstrate their continued compliance.

AWO is also a member of the Shipping Industry Ballast Water Coalition, an alliance of maritime trade associations that, together, represent over 90 percent of all vessels calling at U.S. ports, in both the domestic and international trades. The Coalition is committed to working with legislators, regulators and environmental groups to develop environmentally sound and economically practicable solutions to prevent the introduction and spread of invasive species in U.S. waters.

This history and these organizational characteristics inform our view of the notice of proposed rulemaking. We seek to protect the marine environment in which our vessels operate, to provide a practicable regulatory framework that allows for the continued safe and efficient movement of essential maritime commerce, and to ensure that impracticable or overly burdensome regulations do not result in the diversion of cargo to other transportation modes that pose increased risks to safety and the environment.

The Administration Should Support a Uniform National Standard for Ballast Water and Other Vessel Discharges

We note, first, the critical need for a uniform national standard for ballast water and other vessel discharges. The issuance of this NPRM is a stark reminder of the untenable state of affairs that currently exists with respect to the regulation of vessel discharges: the Coast Guard regulates ballast water under the National Invasive Species Act (NISA); the Environmental Protection Agency (EPA) regulates ballast water and other vessel discharges under the Clean Water Act's National Pollutant Discharge Elimination System (NPDES) permit program; and, because neither NISA nor section 402 of the Clean Water Act preempts state regulation of ballast water and other vessel discharges, dozens of states have established their own regimes governing vessel discharges. This patchwork of federal and state authorities poses enormous difficulties for vessels operating in interstate commerce. (A barge tow traveling from Pittsburgh to New Orleans down the Ohio and Mississippi River systems, for example, travels through 11 states, each of which is free to establish its own unique requirements for vessel discharges in its waters.) While it is sometimes suggested that better coordination among federal and state authorities to avoid conflicting standards is the solution to this problem, coordination alone is insufficient. Even if the various federal agencies and state authorities were to agree on a common discharge standard, for example, vessel owners would still be faced with the significant burden of complying with the multiplicity of administrative requirements (reporting, recordkeeping, inspections, training, etc.) imposed by the different statutory or regulatory authorities governing vessel discharges.

The real solution is to establish a new, uniform statutory framework for the regulation of ballast water and other vessel discharges – one that provides for effective, environmentally protective standards based on sound science and is tailored to address the operational realities of mobile sources in interstate commerce. We urge the Administration to take a leadership role in working with Congress to bring about such a solution.

The Rulemaking Record Does Not Support the Proposed Regulations

AWO is deeply disappointed that, even after the many years that this NPRM has been under development, the proposal is based on inaccurate assumptions and incomplete research that do not support the regulations as proposed. These deficiencies have led to a one-size-fits-all proposal that has not and cannot be justified in its application to barges and towing vessels in the U.S. domestic trade.

First, the rulemaking record simply does not support the proposal that was published in the *Federal Register*. Egregiously, neither the Preliminary Regulatory Analysis nor the Draft Programmatic Environmental Impact Statement (DPEIS) even discusses the two-tiered standard approach proposed in the NPRM. Throughout these documents, the proposed Phase I standard is referred to as the "preferred alternative," and analysis and justification for this standard is provided. Neither the Phase II standard nor the idea of a two-phase approach to standard setting is even discussed in the regulatory analysis or DPEIS, much less analyzed for environmental benefit and economic feasibility. This glaring procedural defect suggests the troubling conclusion that the inclusion of the Phase II standard was a last-minute political decision that was not subjected to the thorough and dispassionate analysis that is 1) required by law and 2) the standard of care that the regulated public has a right to expect from government. We urge the Administration not to short-circuit the regulatory process and to ensure that all required procedural steps are undertaken as it proceeds toward the development of a final rule.

Moreover, the NPRM is also based on numerous inaccurate assumptions about the affected vessel population and its operating characteristics. For example, the regulatory analysis states that vessels under 100 feet in length, vessels operating on rivers and tugboats towing astern generally do not carry ballast water. In fact, inland towboats of all sizes routinely carry ballast water to maintain trim as fuel is burned during a voyage; coastal tugboats carry ballast for trim and stability; and many barges, both inland and coastal, are ballasted for trim and stability, to ensure proper tow configuration, or to allow for better seakeeping when empty. An AWO member survey, which generated responses from 52 member companies (or about 20 percent of AWO's carrier membership), identified more than 1,300 inland and coastal towing vessels and barges that carry ballast water in this small sample alone. The majority of these vessels have not been accounted for in the Coast Guard's estimate of 2,600 U.S. vessels that would be affected by the notice of proposed rulemaking.

The regulatory analysis also assumes that the proposed requirements would only affect vessels with the capacity to carry large volumes of ballast water (450,000 gallons and up) and flow rates of 1,100 gallons per minute or more. In fact, the proposed rule would affect vessels with much smaller capacity and much lower flow rates. A typical inland towboat has 20,000-40,000 gallons of ballast water capacity; a typical coastal tug has 20,000-70,000 gallons. A small harbor tug might have a capacity of 2,000-3,000 gallons. While barges, especially oceangoing barges, have larger ballast capacities, the ballast capacity of many barges is still a fraction of that assumed in the regulatory analysis. Flow rates for barges and towing vessels discharging ballast water are also considerably less than those of other commercial vessels, ranging from 20 to 250 gallons per minute.

Ballast Water Treatment Should Not Be Required for Towing Vessels and Barges in the U.S. Domestic Trade

Without an accurate understanding of the affected vessel population and its characteristics, the Coast Guard cannot make a defensible assessment of the scientific basis for, cost and cost-benefit of, and technical and operational feasibility of requiring ballast water treatment systems on a particular class of vessels. In fact, there is considerable evidence, or in some cases lack of evidence, to argue against the application of ballast water treatment requirements to towing vessels and barges in the U.S. domestic trade.

First, the statutory authority that the Coast Guard claims as the basis for extension of ballast water treatment requirements to all vessels equipped with ballast tanks operating in U.S. waters does not support the imposition of such requirements on vessels that do not operate beyond the U.S. Exclusive Economic Zone (EEZ). NISA provides, in pertinent part (16 USC 4711(c)(2)(D)), that the Coast Guard may "direct a vessel that is carrying ballast water into waters of the United States **after operating beyond the exclusive economic zone**" (emphasis supplied) to conduct ballast water exchange or "use environmentally sound alternative ballast water management methods . . . if the Secretary determines that such alternative methods are at least as effective as ballast water exchange in preventing and controlling infestation of aquatic nuisance species." While the Secretary is authorized to establish ballast water management and reporting requirements for "all vessels equipped with ballast water tanks that operate in waters of the United States" (16 USC 4711(c)(2)(B)), with the exception of crude oil tankers in the coastwise trade (16 USC 4711(c)(2)(L)), authority to require ballast water exchange or alternatives is limited to vessels that have operated beyond the EEZ. Given Congress's explicit distinction between vessels that operate beyond the EEZ and vessels that do not, we believe the Coast Guard's reliance on the general authority provided in 16 USC 4711(c)(1), (c)(2)(A), (e) and (f) to extend ballast water treatment requirements to vessels not required to conduct ballast water exchange is an impermissible overreach.

Second, the DPEIS provides no evidence to suggest that ballast water discharged by towing vessels or barges operating exclusively on the inland river system, or within the same coastal ecosystem, has contributed to the introduction or spread of invasive species in U.S. waters. When the Coast Guard instituted nationwide ballast water reporting requirements in 2004, the agency told AWO that one of the principal purposes of collecting this data was to map vessel movements and ballast water discharge patterns against invasive species flows. AWO was told that the Coast Guard would use this information to determine where ballast water discharges had contributed to the introduction or spread of invasive species and thus, where and on which classes of vessels ballast water treatment requirements would be justified. While the National Ballast Water Information Clearinghouse (NBIC) contains a wealth of data submitted by vessel owners over the past five years, we are aware of no effort by the Coast Guard to analyze the data to see what it suggests about the role of vessels, and particularly domestic vessels, in the introduction and spread of invasive species. We also note, as mentioned above, that NISA exempts from ballast water management requirements crude oil tankers in the U.S. coastwise trade, presumably because they pose no risk of introducing invasive species into U.S. waters. It would be patently unfair to subject domestic towing vessels and barges with much smaller volumes of ballast water capacity to a different standard.

Third, AWO is not aware of any ballast water treatment system that has been approved, installed or even tested on vessels with the operating characteristics of many tugboats, towboats and barges, such as the following:

- Vessels operating exclusively in freshwater: Well over half of U.S. towing vessels and barges never operate in saltwater, and while some ballast water treatment chemicals can work on organisms in freshwater environments, AWO is not aware of any ballast water treatment **system** that has been tested or can be used on freshwater vessels. Indeed, in AWO's conversations with treatment system manufacturers, it has been suggested that treatment systems for freshwater vessels have not yet been developed because their risk of introducing invasive species is so small.

- Vessels of very limited size. Many towing vessels are less than 125 feet long, with small engine rooms averaging between 900 and 1300 square feet. While treatment systems range in size, one of the smallest ones would take up about one-tenth of this space. In a towing vessel engineroom, there is virtually no space not already dedicated to machinery or walkways. Keeping these areas clear and leaving enough room for engineers to maintain the existing equipment is critical to the safe operation of the vessel. Moreover, since ballast water treatment systems have not been tested on tugboats or towboats, it is unclear whether or not their installation is even possible on vessels of such small size.

- Vessels with very low ballast water flow rates. The Preliminary Regulatory Analysis examined vessels with flow rates of 1,100 gallons per minute and above; however, the flow rates of some tugboats are as low as 20 gallons per minute, and average flow rates for typical towing vessels are approximately 250 gallons per minute. Since flow rates must be high enough to pump water through the treatment system, vessels with low flow rates must install additional pumps in order to ensure that the system will work effectively. Not only was the cost of additional pumping equipment not assessed in the rulemaking record, it has not been demonstrated whether treatment systems employing additional pumps are feasible for installation on barges or towing vessels.

- Vessels without installed ballast water piping. The ballast tanks of many barges and towing vessels are simply void spaces filled with water to keep the vessel stable. In many cases, these tanks do not have any piping; they are filled and emptied shoreside with hoses or portable pumps. In order to install a ballast water treatment system, piping would have to be installed, an extensive and expensive process that may require developing an approved vessel-specific design, conducting stability studies and taking the vessel out of service for weeks.

- Tank barges. There are serious safety and possibly regulatory impediments to the installation of ballast water treatment systems that rely on electricity on tank barges. Coast Guard regulations for electric equipment on vessels (46 CFR 111.105-31(l)) prohibit the placement of such equipment within 10 feet of any cargo tank vent outlet, cargo tank ullage opening, cargo pipe flange, or cargo valve unless it is intrinsically safe, explosion proof, or purged and pressurized in order to prevent cargo vapors from exploding. It is unclear whether and how ballast water treatment systems could be

installed on inland tank barges so as not to conflict with this regulation and avoid posing serious personnel safety risks.

Fourth, requiring the installation of treatment systems costing a half-million dollars or more on thousands of towing vessels and barges with very limited ballast water capacity is most likely cost-prohibitive, and surely not cost-effective. A 2009 survey by the California State Lands Commission contained cost estimates for 14 ballast water treatment systems, ranging in cost from $150,000 to $2.3 million per system, with an average cost of $895,000. These estimates do not include the cost of removing the vessel from service in order to install the system, any modifications to the vessel (as would almost certainly be required for towing vessels and barges, for the reasons discussed above), or operation and maintenance of the system once installed. These cost estimates are truly staggering when compared to the value of a barge or towing vessel on which such a system might be installed. An inland barge can cost $400,000, less than half the cost of the average treatment system examined in the California survey! An inland towing vessel can cost as little as $3 million and a coastal tugboat as little as $5 million, meaning a vessel owner could be required to install a piece of equipment worth one-third to one-fifth of the vessel's value.

These costs (which were neither assessed nor justified in their application to most towing vessels and barges, given the Coast Guard's erroneous assumptions about the affected vessel population) are particularly egregious given the very high percentage of barge and towing companies that are small businesses. The Congressionally-authorized Towing Safety Advisory Committee estimated in a 2008 analysis that some 90 percent of barge and towing companies qualify as small businesses under the Small Business Administration definition. These costs must be considered not only in absolute terms, but against the backdrop of the lack of evidence that domestic towing vessels or barges have contributed to the introduction or spread of invasive species, the smaller volumes of ballast water transported by these vessels, and the technological and operational impediments to the installation of ballast water treatment systems on towing vessels and barges.

The Coast Guard Should Exempt Other Vessel Operations That Do Not Pose a Risk of Introducing Invasive Species

In addition to not requiring ballast water treatment systems on towing vessels and barges in the U.S. domestic trade, the Coast Guard should exempt any vessel with the following operational characteristics, which pose little or no risk of introducing or spreading invasive species:

- Vessels that use only municipal or commercial water for ballast. Many towing vessels and barges fall into this category, using potable water from shoreside sources for ballast instead of river or sea water.

- Vessels that carry ballast water or have ballast tanks but do not take on or discharge ballast water in U.S. waters. These vessels do not pose a risk of transferring invasive species into or within U.S. waters and should not be required to install treatment systems.

- Vessels that operate in more than one Captain of the Port (COTP) zone but only take on and discharge ballast water in a single zone. A towing vessel might, for example, operate

throughout the inland river system but only take on ballast water to ride lower in the water when passing under the low bridges near Chicago, discharging the ballast water in the same zone when the bridge transit is completed. Such vessels should be exempted for the same reasons as vessels that operate exclusively within a single COTP zone.

We also urge the Coast Guard to correct what appears to be a technical error in the regulatory text and ensure that the proposed exemption for vessels operating exclusively in one COTP zone (33 CFR 151.2015) extends to the ballast water management requirements (33 CFR 151.2025), consistent with the description of this provision in the preamble to the NPRM.

Eliminate the Two-Tier Approach or Provide Lifetime Grandfathering for Vessels with Installed Treatment Systems

AWO urges the Coast Guard to eliminate the proposed two-tier standard and adopt a single ballast water discharge standard that is both effective in neutralizing invasive species in ballast water and practicable for installation on vessels. While we are sympathetic to the conceptual rationale for the two-tier approach – set an achievable standard in the near term and ramp up to a higher standard if and when technology allows – it is simply impractical to expect a vessel owner to install a treatment system costing as much as $1 million and then replace that system before the end of its useful life. We see two options to avoid this unacceptable situation: first, the Coast Guard could elect to conduct a practicability review now to assess whether the proposed Phase II standard is feasible and, if so, eliminate Phase I and establish an appropriate timeline for installation of Phase II systems. Alternatively, the Coast Guard could implement the Phase I standard as proposed (and subject to the modifications discussed in these comments), with the proviso that any vessel that installs a system meeting the Phase I standard will not be required to replace that system before the end of the system's, or the vessel's, useful life. If a practicability review subsequently allows for adoption of the Phase II standard, the Coast Guard could apply the Phase II requirement to new vessels (or vessels replacing systems that have reached the end of their useful life) only.

The Practicability Review Should Ensure That Systems Are Practicable for Any Class of Vessels on Which They Will Be Required

AWO urges the Coast Guard to ensure that the proposed practicability review is robust and comprehensive. Specifically, we recommend that the practicability review examine the following factors and ensure that any proposed standard is:

- Effective in neutralizing invasive species. This requires ensuring that tools and protocols exist to measure the effectiveness of the standard;
- Technologically feasible for installation on the vessels that will be required to install treatment systems meeting the standard. Treatment systems should not be required on any class of vessels unless the system has been tested and proven practicable given those vessels' engineroom size and design, ballast water capacity, tank configuration, flow rate, etc.;
- Commercially available. That is, systems meeting the standard are on the market and available in sufficient quantity to allow for purchase and installation by the population of affected vessels on the required regulatory schedule;

- Safe for use with the characteristics of the vessels to which it will be applied (i.e., proximity to flammable or combustible cargo, etc.); and,
- Cost-effective for use on the vessels that will be required to use it. A system whose cost would drive vessel owners out of business or impose severe economic hardship is not cost-effective and should not be required.

While the Coast Guard has specifically solicited comments on the factors to be included in the practicability review that takes place before implementation of the Phase II standard, the same considerations are no less relevant to the application of the Phase I standard. We urge the Coast Guard to ensure that a complete analysis of these factors is conducted in the process of finalizing the proposed regulations and before ballast water treatment system requirements are applied to any given vessel class.

Conclusion

AWO urges the Coast Guard to:

- Play a lead role in encouraging the Administration to support a uniform federal statutory framework for the regulation of ballast water and other vessel discharges;
- Ensure that the rulemaking record is complete and accurate, following all required procedural steps and reflecting accurate assumptions about the affected vessel population, before proceeding to finalize the proposed regulations;
- Refrain from requiring treatment standards on towing vessels and barges in the U.S. domestic trade;
- Exempt from the proposed requirements vessels using municipal or commercial water for ballast, vessels that do not discharge ballast water in U.S. waters, and vessels that only take on and discharge ballast water in a single COTP zone, in addition to vessels that operate exclusively within a single COTP zone;
- Eliminate the two-tier standard or, alternatively, provide that a vessel installing a treatment system that complies with the Phase I standard will not be required to replace that system if and when a Phase II standard is implemented; and,
- Conduct a robust and comprehensive practicability review prior to requiring ballast water treatment systems on any class of vessels.

Thank you for the opportunity to comment. We would be pleased to answer any questions or provide further information as the Coast Guard sees fit.

Sincerely,

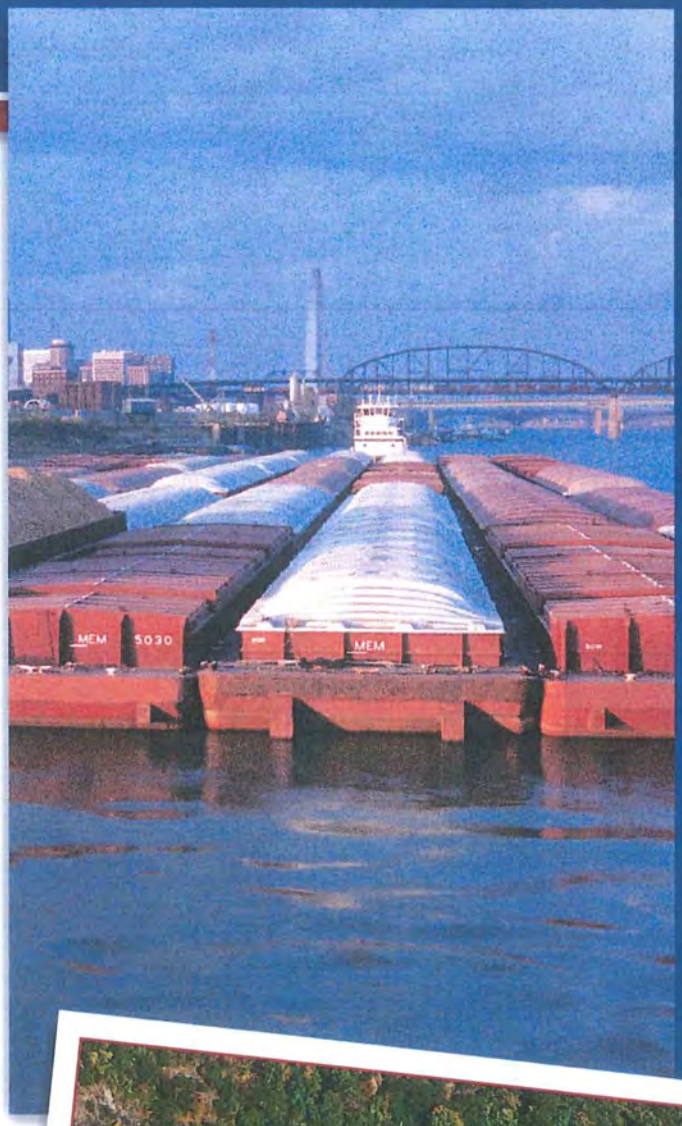
Jennifer A. Carpenter

Jennifer A. Carpenter

Barges are Beautiful...

For the Environment.

This towboat pushing a 24-barge tow moves the same amount of grain as 384 rail cars or 1,680 highway trucks, reducing pollution in our air and congestion on our roads. We get 576 miles to the gallon...while pushing a ton of freight.



THE AMERICAN WATERWAYS OPERATORS
America's Tugboat, Towboat & Barge Industry

"Our Compass Always Points to Safety"

www.americanwaterways.com

Barges are Beautiful...

For American Jobs.

America's tugboat, towboat and barge industry:

- Provides good paying, family-wage jobs for Americans, jobs that cannot be outsourced
- Offers excellent career opportunities for hard-working Americans
- Fosters hundreds of thousands of American jobs that depend on waterways transportation, and directly employs over 30,000 Americans on our vessels
- Contributes to America's economic, national and homeland security because our vessels are American-owned, American-built and American-crewed

THE AMERICAN WATERWAYS OPERATORS
America's Tugboat, Towboat & Barge Industry

"Our Compass Always Points to Safety"

www.americanwaterways.com

Barges are Beautiful...

For the Economy.

America's tugboat, towboat and barge industry:

- Carries 60% of U.S. grain exports, helping American farmers compete overseas
- Carries 22% of the petroleum products that run our vehicles and warm our homes
- Carries 20% of America's coal– enough to meet 10% of U.S. electricity needs
- Provides good paying, family-wage jobs and career opportunities for Americans

THE AMERICAN WATERWAYS OPERATORS
America's Tugboat, Towboat & Barge Industry

"Our Compass Always Points to Safety"

www.americanwaterways.com