

The Great Ships Initiative:

*What it is, What it isn't, and
How it works*

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Great Ships for the Great Lakes?

Commercial Vessels Free of Invasive Species in the Great Lakes – St. Lawrence Seaway System:
A Scoping Report for the Great Ships Initiative



<http://www.nemw.org/scopingreport.pdf>

The Challenge of Ballast Treatment Technology Development

- ◆ IMO standard difficult to measure against
- ◆ No clear standard yet domestically
- ◆ Operational issues not yet clear
- ◆ Tests on board ships are difficult to control and replicate
- ◆ Shore based tests require special test conditions
 - Large tanks
 - Specialized assays
 - High flow
 - Various conditions

The Great Ships Initiative: What it is

- ◆ An industry-led cooperative effort
- ◆ Regional and binational in scope
- ◆ To resolve problems of ship-mediated invasive species in the GLSLSS
- ◆ As quickly, effectively and economically as possible
- ◆ Through research and implementation
- ◆ In coordination/cooperation with prevailing regulatory regimes

What it isn't

- ◆ A discreet regulatory program or process
- ◆ An open ended gov't or private research program
- ◆ An effort to elevate requirements on the GLSLSS above national or international requirements
- ◆ A duplication of system set up by the USCG or IMO

How it works -- Actions

- ◆ Incubate/evaluate treatment alternatives
- ◆ Provide technical support for approvals for promising systems
- ◆ Facilitate fleet-wide installation/use of approved/selected treatment alternatives
- ◆ Communicate results into domestic (US and Canada), and global (IMO) policy processes
- ◆ (Facilitate coordinated harbor monitoring)

How it Works – “Governing Stakeholders”

- ◆ U.S. and Canadian GLSLSS Ports
- ◆ Carriers
- ◆ Government agencies
- ◆ States/Cities
- ◆ Shippers?
- ◆ Environmental organizations

How it Works – “Implementation Support”

- ◆ Fiduciary-National Fish and Wildlife Foundation
- ◆ Managing Entity-Northeast-Midwest Institute
- ◆ Research Activities-Universities
- ◆ Industry outreach-AGLP

How it works – “Advisors”

- ◆ Federal Agencies
- ◆ Professional Societies
- ◆ Classification Societies
- ◆ International Experts
 - Process Engineering
 - Biological sciences
 - Marine Engineering/Naval Architecture

Incubation?

- ◆ Solicit applications by interested vendors of treatment systems
- ◆ Review applications for potential to perform effectively on Seaway sized ships
- ◆ Offer “services” to assist the R and D process
 - Bench, pilot or shipboard research
 - Engineering advice
 - Financial advice

Facilitate Approvals?

- ◆ Supply (through incubation services) useful information in support of regulatory approval
- ◆ Possibly supply a platform for ETV evaluation
- ◆ Support applications to STEP
- ◆ Assist vendor in responding to concerns raised during evaluation process (through further incubation services)

Facilitate Installations?

- ◆ Active outreach to shipyards
- ◆ Active outreach to ship owners
- ◆ Financing tools?
- ◆ Incentives associated with GLSLSS tolls and port fees?
- ◆ Direct subsidy?

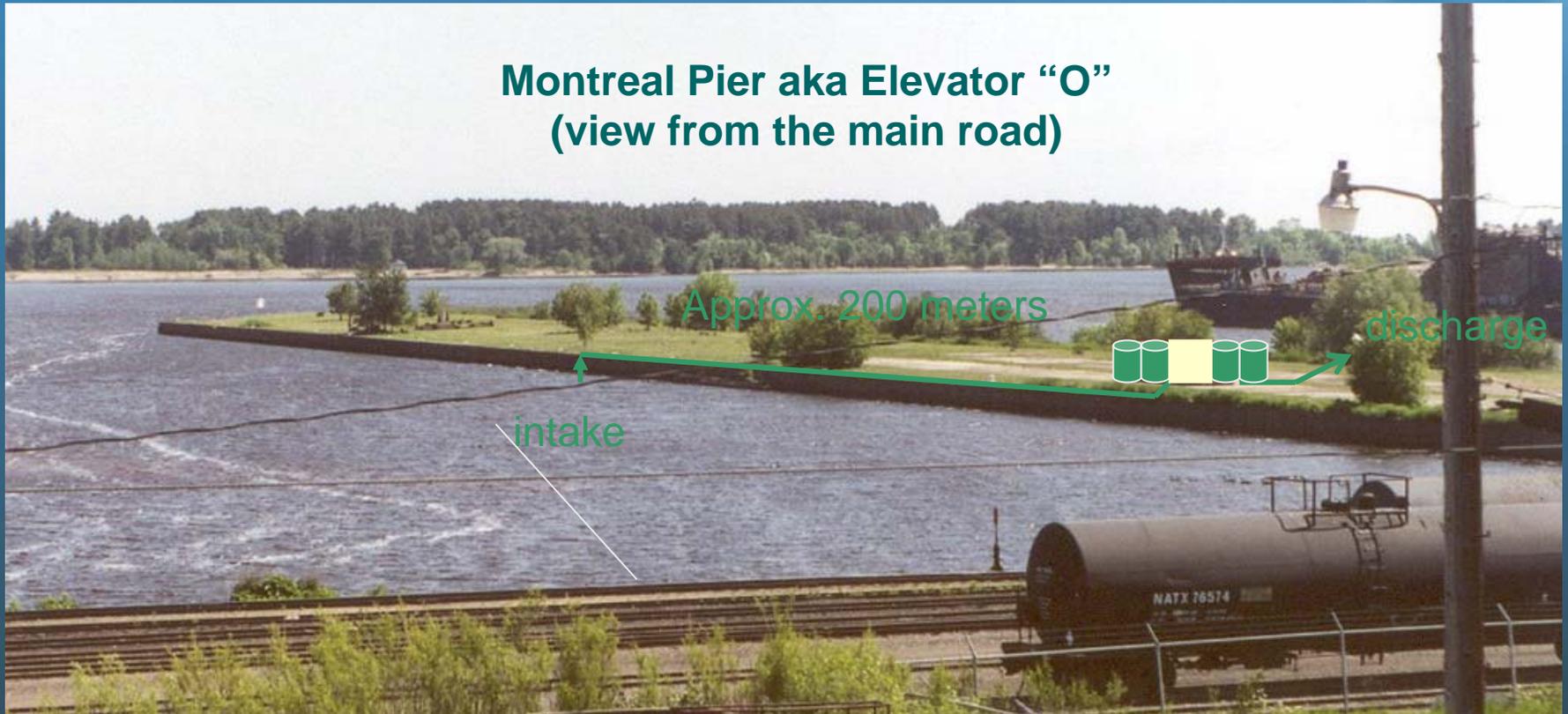
Global relevancy?

- ◆ Conduct incubation services to make output as relevant as possible to IMO/domestic regulatory processes
- ◆ Collaborate with other testing programs
- ◆ Communicate output to key agencies
- ◆ Collectively help advise policy decisions based on output
- ◆ Provide model for other regional efforts

Potential IMO-Compatible Testing Facilities, Globally

- ◆ Norwegian Institute for Water Research (NIVA)
- ◆ Royal Netherlands Institute for Sea Research (NIOZ)
- ◆ Singapore
- ◆ Naval Research Lab - Key West, FL
- ◆ Great Ships Initiative - Duluth-Superior Harbor, Lake Superior
- ◆ Other US Regions' RDTE's TBD

**Montreal Pier aka Elevator “O”
(view from the main road)**



Four 200 cu m tanks;
340 cu m per hr flow;
Can recirculate from tanks to treatment to tanks;
On site sample analysis and nearby university labs

Funders to Date

- ◆ Canadian and U.S. Great Lakes Ports
- ◆ St. Lawrence Seaway Development Organizations (U.S. and Canada)
- ◆ U.S. Maritime Administration
- ◆ U.S. Department of Transportation
- ◆ University of Wisconsin-Superior (in-kind)
- ◆ University of Minnesota-Duluth (in-kind)
- ◆ Great Lakes carrier companies (in-kind)
- ◆ NOAA
- ◆ Great Lakes Maritime Research Institute (pending)

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