

Green Marine: A Voluntary Environmental Program for the North American Marine Industry

October 2013

Green Marine is...



A **voluntary program** to reduce environmental footprint of marine operations by

- exceeding regulatory compliance
- promoting a culture of continuous improvement

A **benchmarking** tool to measure performance A **partnership** initiative involving stakeholders

Green Marine Participants Great Lakes & St. Lawrence region



Green Marine Participants across North America



Port Members (23)

U.S. Great Lakes

Cleveland-Cuyahoga County Port Authority Duluth Seaway Port Authority Illinois International Port District Port of Milwaukee

U.S. West Coast Port of Seattle



Central Canada (Québec-Ontario)

Hamilton Port Authority Montreal Port Authority Port of Valleyfield Quebec Port Authority Saguenay Port Authority Sept-Îles Port Authority Thunder Bay Port Authority Toronto Port Authority Trois-Rivières Port Authority Windsor Port Authority

Canadian West Coast

Greater Victoria Harbour Authority Nanaimo Port Authority Port Metro Vancouver Prince Rupert Port Authority

Atlantic Canada

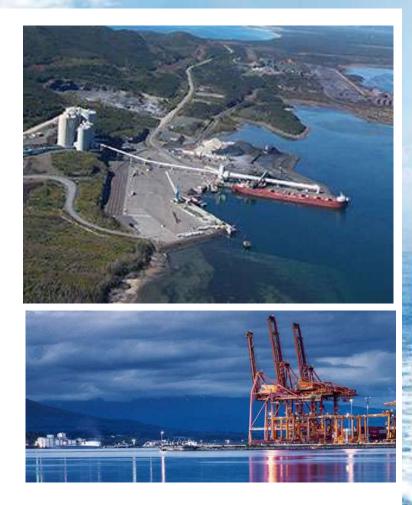
Halifax Port Authority Saint John Port Authority



Terminal Members

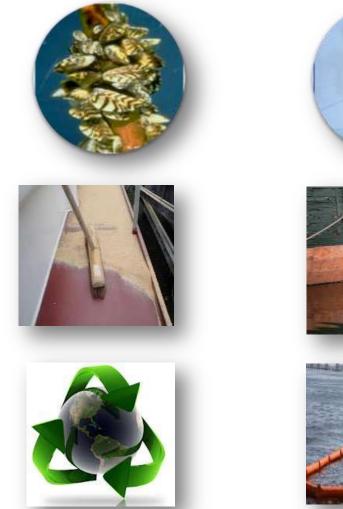


There are 28 terminals, stevedoring companies and shipyards participating in the Green Marine program, operating in more than 50 locations in the U.S. & Canada.



Environmental issues



















1st rule: CEO commitment















2nd rule: Open your arms



An inclusive process

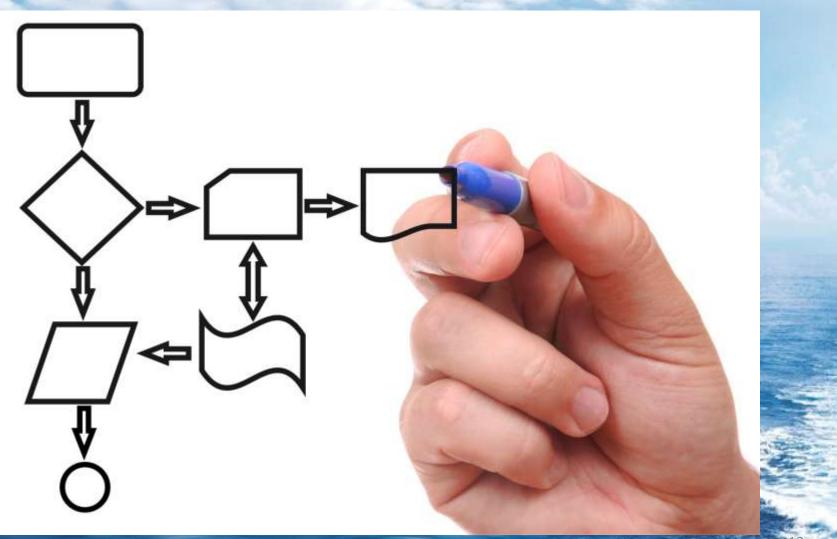




ADVISORY COMMITTEES:

- 3 regional committees
- Mandate: advise on program revision and development
- Includes ports, terminals, shipowners, government, NGOs, academia

3rd rule: Clear and rigorous process



Green Marine Environmental Program



The Green Marine Environmental Program is made up of 4 basic steps:



Evaluation Process

- Concrete
 actions
- Annual Selfevaluation
- Reporting



External Verification

 Third party verification every two years



Results Publication

- Annual report
- Interactive map on GM website
- Individual and average results



Certification

- Certification awarded after verification
- Valid until next verification

13

Benchmarking Performance



For each environmental issue, performance is evaluated on a scale from 1 to 5:

Regulatory compliance

3

4

- Systematic use of a defined number of best practices
- Integrated management systems & quantifiable understanding of environmental impacts
- Introduction of new technologies
- Excellence and leadership

4th rule: Total transparency



Reporting



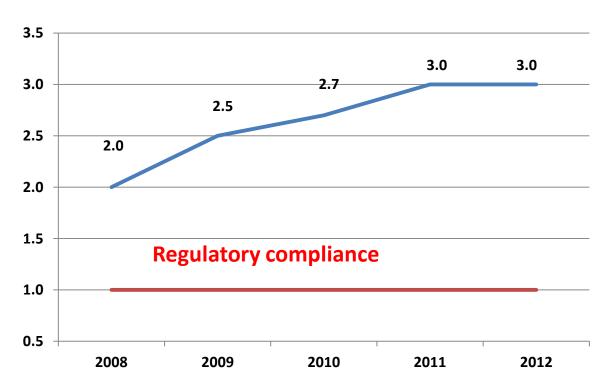
	Aquatic Invasive Species	Air Emissions (SOx)	Air Emissions (NOx)	Greenhouse Gases	Cargo Residues	0ily Water
Algoma Central Corporation	4	4	4	3	4	5
Atlantic Towing Limited	2	S	2	2	n.a.	2
Canada Steamship Lines	5	4	4	5	4	4
Canfornav Inc.	4	4	3	5	5	5
COGEMA	n.a.	S	2	2	n.a.	2
Fednav Ltd.	4	3	3	5	5	4
Groupe CTMA	2	5	2	2	n.a.	1
Groupe Desgagnés Inc.	4	5	4	5	4	4
Island Tug and Barge Ltd. *	n.a.	5	2	2	n.a.	n.a.
Lower Lakes Towing Ltd.	2	2	2	2	2	2
McAsphalt Marine Transportation Ltd.	4	2	3	3	n.a.	2
McKeil Marine Ltd.	3	5	3	2	2	2
Ocean Group Inc.	n.a.	5	3	5	n.a.	n.a.
Oceanex Inc.	3	5	3	3	n.a.	3
Provmar Fuels Inc.	n.a.	5	3	2	n.a.	n.a.
Reformar	n.a.	5	2	3	n.a.	2
Seaspan Marine Corporation	n.a.	S	2	3	n.a.	n.a.
SMIT Marine Canada Inc.	n.a.	5	2	2	n.a	n.a.
Société des Traversiers du Québec	n.a.	5	3	3	n.a.	2
Svitzer Canada Ltd. *	n.a.	2	2	2	n.a.	n.a.
TBS International / Roymar Ship Management Inc.	3	2	2	2	2	3



Results

Steady improvement in performance





 Increase in membership

GREEN MARINE

 More stringent program requirements

Supporters











Transport Transports Canada Canada





World Wildlife Fund Canada



Recognition





WINNER GREEN SHIPPING INITIATIVE OF THE YEAR Sustainable Shipping Awards 2011

Partners



Partners are suppliers of services, products, technology and/or equipment that offer environmental advantages or opportunities to help companies improve their environmental performance.







Drew Marine



Why Green Marine?

Action plan & Roadmap





2013 Self-Evaluation Guide

Green Marine Environmental Program

Ports, Terminals, Shipyards & St. Lawrence Seaway Corporations



4) COMMUNITY IMPACTS - LEVEL 3

Has the port or the company ful- filled the following criteria?	Status	Proof / Justification
4.3.1 Adoption of a plan for managing community impacts, which formally incorporates all applicable the best practices, set out in level 2. Such a plan is to include a procedure for handling complaints. <u>Note:</u> See Annex 3	0 YIS 9 NO 0 NA	
4.3.2 Periodic sampling (at least once in the last two years) of noise and / or air emission (dust and/or odors) in the problem areas.	0 YES 0 NO 0 NA	
4.3.3 Evaluate environmental and social aspects of new projects (carried out after January 1st, 2013). Optional for 2013. Note: For terminal operators, new projects are new services provided or new products handled that can have an impact on the environment and/or the community.	0 118 0 NO 0 NA	

23

Demonstrate & Communicate











2012 PROGRESS REPORT

TOWARDS A SUSTAINABLE REDUCTION OF THE MARINE INDUSTRY'S ENVIRONMENTAL FOOTPRINT

Serie Neuro Inc. climate mentalità scorecci Più Olin amenden par el reducting las contenuental performante el la participante, fanzi se la ministrato possibi in samittolito, la contenuen el la cuasa el la parapera nel la cuatto performante anche el la participante, fanze da Alacia y cheche integra conputede la si tegimen and della environna el cuattalità programa de la faito del la cuatta parte della environna del cuattalità programa de la faito della cuatta della cuatta della cuatta cuasta della cuatta della parte della cuatta della cuatta della cuatta della cuatta della cuatta della parte della della cuatta della cuatta della cuatta della cuatta della cuatta della parte della cuatta della parte della de

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Governance tool











Maintain social license to operate





GREEN MARINE ANNUAL CONFERENCE

GREEN TECHNOLOGIES AND INNOVATION FOR MARINE TRANSPORTATION

> JUNE 10, 11 & 12, 2014 SAINT JOHN, NB



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