2006
Great Lakes
Ballast Water Management
Exam Program
The St. Lawrence Seaway

Canada
- Ontario
- Quebec

United States
- Minnesota
- Wisconsin
- Michigan
- Illinois
- Indiana
- Ohio
- Pennsylvania
- New York

Transport Canada / U.S. Coast Guard / St. Lawrence Seaway
Regulatory History in Great Lakes

- 1989 Voluntary Best Practices (Canada)
- 1993 Ballast Water Management Regulations (U.S.)
- 1999 Mandatory Ballast Water Reporting (U.S.)
- 2000 National Ballast Water Guidelines (Canada)
- 2004 Civil Penalties for Non Submission (U.S.)
- June 2006 Ballast Water Regulations including NOBOB requirements (Canada)
NOBOB Challenges

- **NOBOB No Ballast On Board**
- 2005 NOAA/GLERL Research confirmed the risk of spread of ANS through residual ballast water and sediment in tanks once ballasted then de-ballasted in Great Lakes
- 70-80% of voyages into Great Lakes are NOBOB
NOBOB does not mean no risk of invasion!
What are NOBOBs carrying?
Great Lakes Ballast Water Working Group

- U.S. Coast Guard
- Transport Canada
- St. Lawrence Seaway Management Corporation
- St. Lawrence Seaway Development Corporation
Great Lakes Ballast Water Working Group
Mission Statement

Reduce the risk of introducing Aquatic Invasive Species into the Great Lakes via ballast water by enforcing existing regulations and educating mariners in Best Management Practices
Joint Ballast Water Management Exam Program

Ballast Water Management Practices

Ballast Water Reporting

Salinity Testing of Tanks

Transport Canada / U.S. Coast Guard / St. Lawrence Seaway
Ballast Water Management Practices

- Review records, logs
- Interview vessel crew
One job-aide is used by all agencies

Questionnaire includes questions that cover requirements of all 4 jurisdictions

Agencies share results with each other

Enforcement rights retained by each agency
# Great Lakes - St. Lawrence Seaway System

## Joint Agency Ballast Water Management Exam Report

To be filled out by the attending inspectors from
Canada, St. Lawrence Seaway Corporations, or United States

<table>
<thead>
<tr>
<th>1. SHIP NAME</th>
<th>2. FLAG</th>
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<tr>
<th>3. IMO No.</th>
<th>4. LAST PORT OF CALL</th>
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<tr>
<th>5. OWNER</th>
<th>6. MANAGER (TECHNICAL)</th>
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## 7. ARE COPIES OF THE FOLLOWING PUBLICATIONS ON BOARD?

- a) IMO RESOLUTION A 868 (20): [YES/NO]
- b) US 33 CFR 151 SUBPARTS C & D - BALLAST WATER MANAGEMENT FOR CONTROL OF NON INDIGENOUS SPECIES IN THE GREAT LAKES (C) AND WATERS OF THE UNITED STATES (D): [YES/NO]
- c) 70 FEDERAL REGISTER 51831 - BALLAST WATER MANAGEMENT FOR SHIPS ENTERING THE GREAT LAKES THAT DECLARE NO BALLAST ON BOARD: [YES/NO]
- d) CANADA’S BALLAST WATER CONTROL AND MANAGEMENT REGULATIONS: [YES/NO]
- e) TP 13617 E - A GUIDE TO CANADA’S BALLAST WATER CONTROL AND MANAGEMENT REGULATIONS: [YES/NO]
- f) THE SHIPPING FEDERATION CODE OF BEST PRACTICES FOR BALLAST WATER MANAGEMENT: [YES/NO]

## 8. IS THERE A BALLAST WATER MANAGEMENT PLAN (BWMP) ON BOARD? (IF NOT PROCEED TO QUESTION 19)

[YES/NO]

## 9. THE BWMP IS PROVIDED BY:

- [ ] OWNER
- [ ] MANAGER
- [ ] OTHER

## 10. THE BWMP WAS REVIEWED BY:

- [ ] FLAG STATE
- [ ] CLASS

## 11. IS THE BWMP SPECIFIC TO THIS SHIP?

[YES/NO]

## 12. DO THE SENIOR OFFICERS DEMONSTRATE A WORKING KNOWLEDGE OF THE BWMP?

[YES/NO]

## 13. DOES THE BWMP CONTAIN DETAILED INSTRUCTIONS FOR SUBMITTING BALLAST WATER REPORTS?

[YES/NO]

## 14. DOES THE BWMP ACKNOWLEDGE SPECIAL REQUIREMENTS FOR GREAT LAKES ENTRY?

[YES/NO]

## 15. DOES THE BWMP PRESCRIBE BEST MANAGEMENT PRACTICES?

[YES/NO]

## 16. DOES THE BWMP CONTAIN PROCEDURES FOR FULL EXCHANGE?

[YES/NO]

## 17. DOES THE BWMP CONTAIN PROCEDURES FOR MID OCEAN FLUSHING OF EMPTY TANKS?

[YES/NO]
Applicability Section explains different requirements

The following questions are directly related to regulations currently in force:

**United States:**

33 CFR 151 – Subpart C and D. Ballast Water Management for Control of Non Indigenous Species in the Great Lakes (C) and Waters of the United States (D).


**Canada:**

Ballast Water Control and Management Regulations (2006)


**Seaway Practices and Procedures.**


* By reference to The Shipping Federation of Canada Code of Best Practices for Ballast Water Management
**NOBOB Salinity Testing**

- If enough residual is present, a sample is raised to the deck and sampled for salinity using a refractometer.
- Looking for 30 ppt salinity residual water.
Ballast Water Working Group
Objectives

- Continue 100% exams of ballasted vessels
- Increase number of NOBOB exams
- Track adherence to Best Management Practices
- Decrease percentage of NOBOB tanks with low salinity residuals
- Increase percent compliance with management requirements
Ballasted vs. NOBOB

<table>
<thead>
<tr>
<th>Year</th>
<th>NOBOB</th>
<th>BOB</th>
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<tbody>
<tr>
<td>2003</td>
<td>345</td>
<td>98</td>
</tr>
<tr>
<td>2004</td>
<td>399</td>
<td>91</td>
</tr>
<tr>
<td>2005</td>
<td>362</td>
<td>139</td>
</tr>
<tr>
<td>Mar-Sep 2006</td>
<td>302</td>
<td>97</td>
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NOBOB Exams

Goal: Increase the number of NOBOB exams

### 2004
0 NOBOB Ship Exams

### 2005
147 NOBOB Ship Exams
**Average 18.3 exams per month**

### 2006 Mid-Year Mar- July
140 NOBOB Ship Exams
**Average 23.3 exams per month**
Total # NoBOB vessels = 208

Vessels inspected = 140 (67%)

Example: M/V Sofia

NOBOB Reported Flushed

Percent Flushed

First Trip

Second Trip

no
partial
yes
NOBOB TANK EXAM RESULTS

Goal: Decrease number of untreated tanks

Total # Tanks Inspected:
2005: 3049
2006: 2845

Goal: Decrease number of untreated tanks

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<tr>
<th></th>
<th>2005</th>
<th>2006</th>
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<tbody>
<tr>
<td>Not Inspected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Salinity</td>
<td>23%</td>
<td>7%</td>
</tr>
<tr>
<td>High Salinity</td>
<td>45%</td>
<td>47%</td>
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<tr>
<td>Dry or Muddy Tanks</td>
<td>9%</td>
<td>6%</td>
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Transport Canada / U.S. Coast Guard / St. Lawrence Seaway
Ballast Water Management

- Documentation Exam administered by St. Lawrence Seaway on records, logs and plans = 161
  - Percentage with minor deficiencies = 38%
- Enforcement Action issued by USCG for missing plans = 5 (3%)
- Letter of Retention issued by USCG for non-compliant ballast water = 5 (9%)
- Increased outreach & coordination with shipping companies and agents
Future Plans

- Build common data base
- Harmonize reporting requirements
- Continue Joint Agency Exam Form
- Improve vessel targeting and analysis