

# The Great Lakes Ballast Water Aquatic Invasive Species



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# Coast Guard BWD Standard Rulemaking Project

CG has authority to set standards/approve technologies (NISA)

Why do we need BWD Standard?

- BWE and NOBOB issues
- Consistency with IMO

The BWD Standard regulation would:

- Set a concentration-based standard
- Environmentally protective, scientifically sound, enforceable
- Used to approve BWT technologies



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# Rulemaking - Current Status

DPEIS – Very complex, under development since Fall 2003

Expert Panel Workshop - May 2007 in Charleston SC

Comprised of NEPA Experts and Invasion Biologists from the five cooperating agencies

DPEIS – in clearance

NPRM – in clearance

Expect summer Federal Register publication subject to CG/DHS/OMB approval

4 Public meetings planned - one in the Great Lakes area<sup>5n</sup>



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# Joint US/CA Ballast Water Management Exam Program



Great Lakes Ballast Water Working Group

U.S. Coast Guard

Transport Canada

St. Lawrence Seaway Management Corporation

St. Lawrence Seaway Development Corporation



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# Joint Agency - 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



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# Compliance and Enforcement Objectives

Inspect all vessels on first & subsequent voyages

Target 100% of tanks if resources available –  
upwards of 12,000 tanks

Data Collection (science and enforcement)

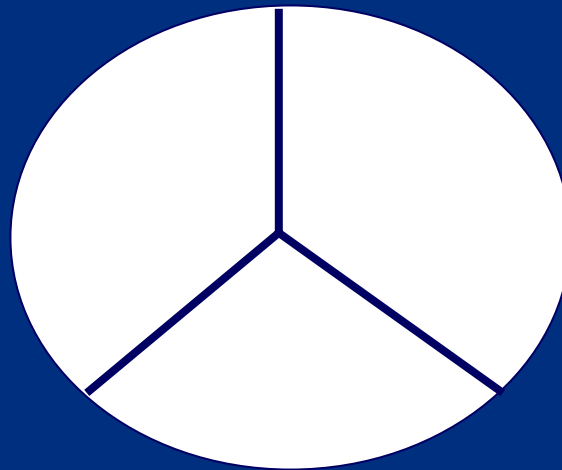
Increase compliance with regulatory requirements  
through both enforcement and education



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# Comprehensive Exam Program

Ballast Water  
Management  
Exam



Ballast Water  
Reporting

Salinity Testing of Tanks



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**ST. LAWRENCE SEAWAY BALLAST WATER REPORTING FORM**

96 Hour Report (Canadian Requirement)  24 Hour Report (U.S. Requirement)  AMENDED FORM Yes  No

1. VESSEL INFORMATION	2. VOYAGE INFORMATION	3. BALLAST WATER USAGE AND CAPACITY		
Vessel Name:	Arrival Port:	<i>Specify Units Below (m<sup>3</sup>, MT, LT, ST, gal)</i>		
IMO Number:	Arrival Date (DD/MM/YYYY):	Total Ballast Water on Board:		
Owner:	Agent:	Volume	Units	No. of Tanks in Ballast
Type:	Last Port	Country	m <sup>3</sup>	
GT:	Next Port	Country	Total Ballast Water Capacity:	
Date/Time of Submission:	Next Port (2)	Country	Volume	Units
Flag:	Next Port (3)	Country		Total No. of Tanks on Ship
			m <sup>3</sup>	

**4. BALLAST WATER MANAGEMENT**

Total No. Ballast Water Tanks to be discharged:

Of tanks to be discharged, how many: Underwent Exchange:  Underwent Alternative Management:

Please specify alternative method(s) used, if any: \_\_\_\_\_

If no ballast water management conducted, state reason why not: \_\_\_\_\_

Ballast water management plan on board? YES  NO  Management plan implemented? YES  NO

IMO ballast water guidelines on board [res. A.868(20)]? YES  NO

**5. BALLAST WATER HISTORY: Record all tanks.**

Tanks/Holds <small>List multiple sources/ tanks separately</small>	CURRENT VOLUME	BW SOURCES				BW MANAGEMENT PRACTICES							PROPOSED BW DISCHARGE			
		DATE DD/MM/YYYY	PORT or LAT. LONG.	VOLUME (units)	Salinity (units)	DATE DD/MM/YYYY	Start Point Lat. & Long.	End Point Lat. & Long.	VOLUME (units)	% Exch	METHOD (ER/FT/ ALT)	WAVE HT. (m)	DATE DD/MM/YYYY	PORT or LAT. LONG.	VOLUME (units)	SALINITY (units)

Ballast Water Tank Codes: Forepeak = FP, Aftpeak = AP, Double Bottom = DB, Wing = WT, Topside = TS, Cargo Hold = CH, Other = O, ER= Empty/Refill, FT=Flow Through, ALT= Alternate Method

6. Will water be added to any tanks containing only residual ballast and sediment, and then subsequently discharged during the same voyage? YES  NO

7. If the answer to # 6 is YES:

a) Has the ship complied with best management practices? YES  NO

b) Has the residual ballast water been exposed to salinity conditions equivalent to ballast exchange? YES  NO

8. RESPONSIBLE OFFICER'S NAME AND TITLE: \_\_\_\_\_





**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**



1. SHIP NAME \_\_\_\_\_ 2. FLAG \_\_\_\_\_

3. IMO No. \_\_\_\_\_ 4. LAST PORT OF CALL \_\_\_\_\_

5. OWNER \_\_\_\_\_ 6. MANAGER (TECHNICAL) \_\_\_\_\_

7. ARE COPIES OF THE FOLLOWING PUBLICATIONS ON BOARD?

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| a) IMO RESOLUTION A 868 (20):  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 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 <input type="checkbox"/> | NO <input type="checkbox"/> |
| c) 70 FEDERAL REGISTER 51831 - BALLAST WATER MANAGEMENT FOR SHIPS ENTERING THE GREAT LAKES THAT DECLARE NO BALLAST ON BOARD:                                 | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| d) CANADA'S BALLAST WATER CONTROL AND MANAGEMENT REGULATIONS:  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| e) TP 13617 E - A GUIDE TO CANADA'S BALLAST WATER CONTROL AND MANAGEMENT REGULATIONS :   | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| f) THE SHIPPING FEDERATION CODE OF BEST PRACTICES FOR BALLAST WATER MANAGEMENT:  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 8. IS THERE A BALLAST WATER MANAGEMENT PLAN (BWMP) ON BOARD? (IF NOT PROCEED TO QUESTION 19)   | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 9. THE BWMP IS PROVIDED BY: <input type="checkbox"/> OWNER <input type="checkbox"/> MANAGER <input type="checkbox"/> OTHER _____                             |                              |                             |
| 10. THE BWMP WAS REVIEWED BY: <input type="checkbox"/> FLAG STATE _____ <input type="checkbox"/> CLASS _____   |                              |                             |
| 11. IS THE BWMP SPECIFIC TO THIS SHIP?   | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 12. DO THE SENIOR OFFICERS DEMONSTRATE A WORKING KNOWLEDGE OF THE BWMP?  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 13. DOES THE BWMP CONTAIN DETAILED INSTRUCTIONS FOR SUBMITTING BALLAST WATER REPORTS?  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 14. DOES THE BWMP ACKNOWLEDGE SPECIAL REQUIREMENTS FOR GREAT LAKES ENTRY?  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 15. DOES THE BWMP PRESCRIBE BEST MANAGEMENT PRACTICES?   | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 16. DOES THE BWMP CONTAIN PROCEDURES FOR FULL EXCHANGE?  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |
| 17. DOES THE BWMP CONTAIN PROCEDURES FOR MID OCEAN FLUSHING OF EMPTY TANKS?  | YES <input type="checkbox"/> | NO <input type="checkbox"/> |

# Salinity Testing of Tanks

Sampling via sounding tube, vent or tank access

If enough water is present, a sample is raised to the deck and sampled with refractometer

Looking for salinity  $> 30$  ppt

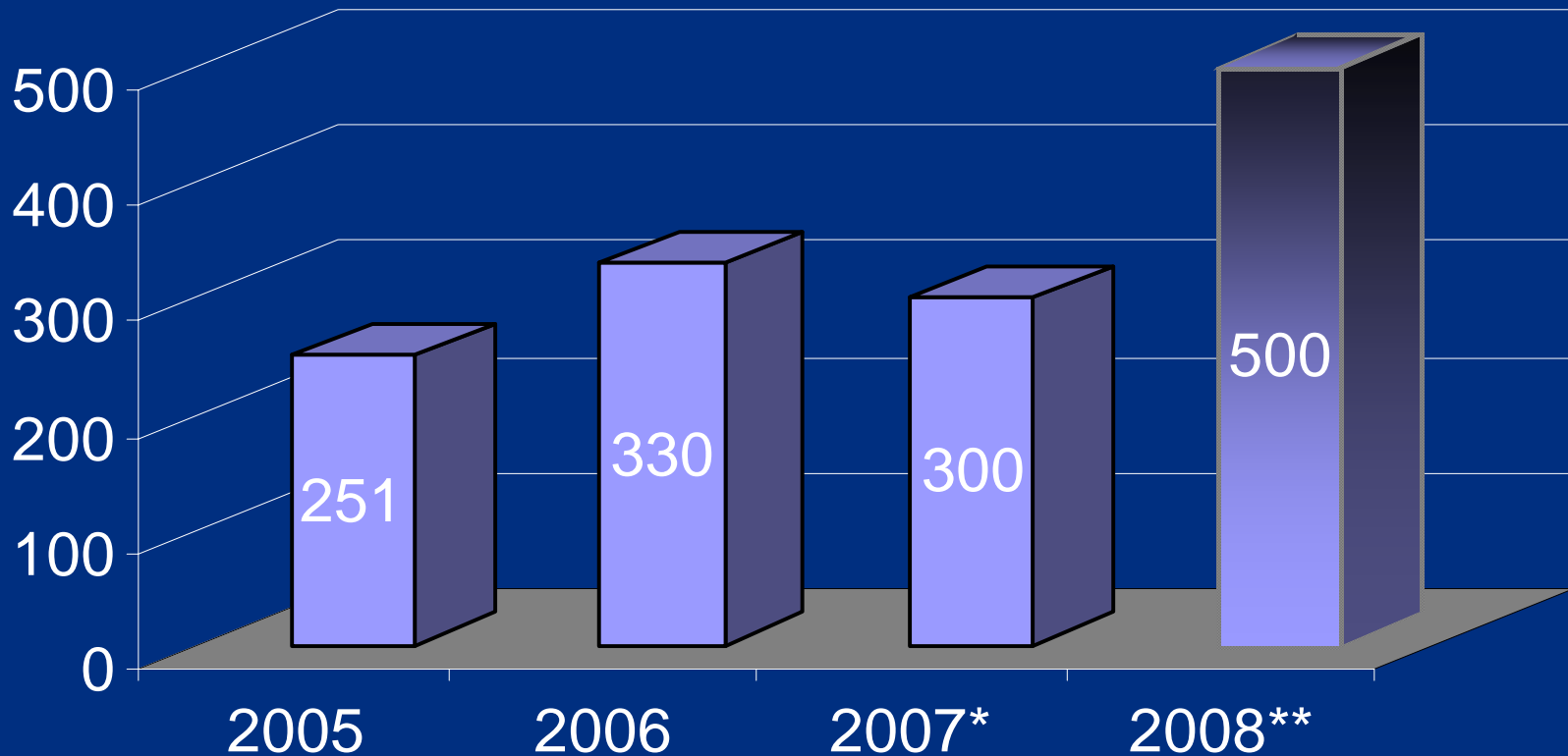
Presence of mud or salinity  $< 30$  ppt may mean noncompliant tank



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# Joint Ballast Exams

Goal: Increase the number of Ballast Exams



\*Tentative results

\*\*Estimate



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# 2007 Tentative Results

- 300 Ships bound for the Great Lakes examined
- Average of 31 exams per month
- 4596 tanks tested
- 100% of ballast water forms checked
- 154 non compliant tanks
- > 95% compliance rate



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# Final Seaway Regulations regarding NOBOB vessels

- Required saltwater flushing for empty (NOBOB) tanks
- Increased secondary inspections and the percentage of tanks subject to inspection
- Foreign flagged vessels must maintain the ability to measure salinity levels in each tank



# Ballast Water Management Plans and AIS Workshop

Ninth District sponsored workshop on January 31, 2008

Bring together members of Great Lakes states, Federal agencies, shipping industry, and academia to review Vessel Ballast Water Management Plans and Best Management Practices with respect to the intra-lake movement of AIS

Three breakout groups assembled

- Identification, Communications, and BW Management Practices



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# For More Information

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<http://www.uscg.mil/hq/g-m/mso/estandards.htm>



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# Dry Cargo Residue Background

1987 – Applicable laws effectively ban dry cargo discharge in Great Lakes

1993 - Coast Guard Ninth District issues IEP

- Allows discharge except in designated areas
- Ranges between 3 and 13.8 miles from shore
- Reissued with slight changes in 1995 and 1997



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# Dry Cargo Residue Background

Congress expressly authorized IEP since 1998

Congressional sanction for the IEP expires September 30, 2008 but authorizes CG to regulate discharges in the Great Lakes

March 2006 - USCG published a Notice of Intent to prepare an EIS and study current Great Lakes dry cargo residue practices



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# Dry Cargo Current Activities

The USCG considered comments received and is currently carrying out scientific investigations to support its Environmental Impact Statement

The rule NPRM/DEIS are in clearance

USCG expects to publish a draft EIS in late fall 2008 dependent upon CG/DHS/OMB approval

Extensive public input desired through written comments and at public meetings



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