Climate Change, Marine Environmental Regulatory Development, and Sustainable Development in Ports and Shipping

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Overview

- Transport Canada’s Strategic Objectives
- International Context
- International Maritime Organization work to address Climate Change
- Environmental Conventions and Regulations
- Government and Industry Sustainable Development Initiatives
Transport Canada’s Strategic Objectives

• Clean Transportation System

• Clean Air / Water
  – Emissions Regulations
  – ecoTRANSPORT
  – Protection from Invasive Species
  – Liability Regulations
  – Incident Response

• Environmental Stewardship
  – Sustainable Development
International Context

• United Nations Framework Convention on Climate Change (UNFCCC)

• Canada’s commitment to the Copenhagen Accord

• Developing a regulatory climate change framework
International Maritime Organization (IMO)

- Environmental Protection at the IMO
- Marine Environmental Protection Committee (MEPC) and climate change
- Addressing climate change at the IMO
  - Energy Efficiency Design Index (EEDI)
  - Ship Energy Efficiency Management Plan (SEEMP)
  - Market-based mechanisms
Ratified International Maritime Conventions

- Annexes IV, V and VI of the International Convention for the Prevention of Pollution from Ships (MARPOL);
- International Convention for the Control and Management of Ship’s Ballast Water and Sediments, 2004;
- International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001;
- 1988 Protocol Safety of Life at Sea Convention (SOLAS);
- Convention on Standards of Training, Certification and Watch-keeping for Fishing Vessel Personnel (STCW-F);
- 1988 Protocol to the Convention on Load Lines;
- 2001 Bunkers Convention;
- The Supplementary Fund Protocol; and,
North American Coastal Emission Control Areas (ECA)

- Proposed by the U.S. and Canada, joined by France on behalf of the Saint Pierre and Miquelon archipelago
- ECA will apply to large ships operating in a 200 nautical mile corridor in North American coastal waters
- All ships must use increasingly low sulphur-content fuels (1% in 2012, 0.1% in 2015) or emission control systems
- Post 2016-built ships must use advanced emission control technologies to control nitrogen oxide emissions
Domestic Emission Control Areas

- Canada is proceeding with the creation of regulations to apply ECA-style nitrogen oxide (NOx) and sulphur oxide (SOx) controls to the Great Lakes / St. Lawrence System.
- TC will work with EPA to develop a bi-national regulatory scheme. Canadian regulations are expected towards the latter part of 2012 and will be implemented under the Canada Shipping Act, 2001.
- Transport Canada is seeking a reciprocity arrangement with the Environmental Protection Agency.
- The marine industry will be fully engaged on these coming rules at the Canadian Marine Advisory Council (CMAC).
Ballast Water

• Canada has recently ratified the IMO’s International Convention for the Control and Management of Ship’s Ballast Water and Sediments

• *Ballast Water Control and Management Regulations*
  – Ballast water management requirements in the Great Lakes and the St. Lawrence System are among the most stringent in the world
  – Over 97% initial compliance and corrective actions taken before ships enter the Seaway, we collectively achieve 100% compliance

• The department continues to follow developments in the U.S. regarding ballast water rules at both state and national levels

• Nationally consistent and internationally harmonized ballast water standards will provide the necessary predictability for the marine industry and enable ship owners to make environmentally responsible long-term plans for fleet renewal
Canada’s Federal Sustainable Development Strategy

- Minister of Environment responsible
- Focusing on environmental sustainability under 4 main themes
  - Addressing climate change and clean air
  - Maintaining water quality and availability
  - Protecting nature
  - Shrinking the environmental footprint – beginning with government
- Departments are required to develop 3-year Strategies that contribute to the FSDS starting in 2011
The *Canada Marine Act* and Environmental Framework Affecting Canadian Port Authorities

- *Canadian Environmental Assessment Act*
- *Navigable Waters Protection Act*
- *The Fisheries Act*
- *Canada Marine Act*

- Port Eligible Federal Program Funding
  - Gateways and Border Crossings Fund
  - Asia-Pacific Gateway and Corridor Fund
  - Infrastructure Stimulus Fund
Government Support for Port Initiatives

• ecoFREIGHT Marine Shore Power Program at Port Metro Vancouver
  – Cold ironing reduces greenhouse gas and air emissions
  – Reduces port related impacts on climate change and air quality
  – Government of Canada, the BC Ministry of Transportation, Holland America Lines, Princess Cruises, BC Hydro, and Port Metro Vancouver

• Port of Montreal Footprint Project
  – Inventory greenhouse gas and air emissions / forecast to 2020
  – Identify priority reduction measures
  – Share methodologies and best practices
  – Transport Canada, Environment Canada, Green Marine, Port of Montreal
Conclusion

- Clean Air activities contribute to domestic and international objectives of a more sustainable transportation system.

- Government continues to engage with the International Maritime Organization in developing standards and best practices for reducing greenhouse gas emissions and pollutants emitted by ships.

- Amendments to the *Canada Marine Act* have been passed which allow Canadian Port Authorities to receive federal funding for capital infrastructure, environmental sustainability, and security enhancements.

- Environmental Stewardship activities further environmental objectives and promote sustainable transportation. With port level partnerships, we are realizing gains from these activities already.