

# Chapter 5

## Coast Guard Annexes



### 5.1 Annexes 4, 5, 6, 8 and 9

Annexes 4, 5, 6, 8 and 9, commonly referred to as the Coast Guard Annexes, relate primarily to toxic and pollutant threats from shipping activities. They are often cited as examples of how the two countries, even under resource constraints, can work together effectively. The Coast Guards prepare a joint report for the Commission every year (U.S. Coast Guard/Department of Fisheries & Oceans Canada/Transport Canada Marine Safety 1999). One aspect of the Coast Guard Annexes is that the associated programs reside primarily in federal agencies. This has eased difficulties associated with the coordination and development of binational procedures and programs.

### Emergency Response

The Commission continues to be encouraged by the extent of binational collaboration under the joint contingency planning requirements of Annex 9 of the Agreement. Annex 1 of the Canada - U.S. Joint Marine Contingency Plan, which is referred to as CANUSLAK, applies to the Great Lakes region. The Coast Guards stage joint practice exercises, which include the local tribes and First Nations as well as the state, provincial, and local governments. This plan was tested in a real spill on June 2, 1998, when the Canadian Coast Guard responded to a sewage and oil spill in the Detroit River. This event demonstrated the high degree of cooperation and coordination between the Canadian and U.S. Coast Guards.

### Discharges from Vessels

Under Annex 4, the Parties are required to adopt regulations to prevent discharges of harmful quantities of oil and hazardous polluting substances from vessels. In Annex 8, there is a similar restriction on discharges from onshore and

offshore facilities. According to statistics presented in Coast Guard reports, the majority of oil spills in the Great Lakes are less than 10 gallons. The marine transport of oil and chemicals appears to be under tight management, with minimal impact on the integrity of the Great Lakes. Most spills over 500 gallons are from nonmarine sources, such as industrial plants and railroads.

The discharge of garbage is prohibited under Annex 5 while cargo residue is not mentioned. The current practice in both countries allows the discharge of cargo residues into designated areas of the Great Lakes. There is an apparent contradiction with the International Maritime Organization definition that includes cargo residue in a broad definition of garbage. However, in the Great Lakes the discharge of garbage is clearly prohibited. Annex 6(1)(d) requires the Parties to review practices and procedures regarding the prevention of pollution from the loading, unloading, or onboard transfer of cargo, but does not refer explicitly to cargo residue.

Annex 6 requires the Coast Guards and involved Canadian agencies to review pollution from shipping sources. The annex calls for consultation to exchange information, identify and prioritize problems needing study, coordinate studies, and report to the Commission. The close working relationship among these agencies has resulted in good coordination and consultation.

The Coast Guard reports state that vessel-related sources of contaminants such as sewage and small oil spills are not a threat, in the volumes being discharged, to the physical, chemical, or biological integrity of the waters of the Great Lakes.

## **5.2 Alien Invasive Species (AIS)**

Coast Guard reports under Annex 6 outline studies that have been undertaken relating to the major issue of the discharge of ballast water from vessels. Annex 6(1)(b) requires the Parties to review “practices and procedures regarding wastewater and their deleterious effect on water quality, including, as required, studies to determine if live fish or invertebrates in ballast water discharges into the Great Lakes System constitute a threat to the System.” Over the past decade, the primary focus of activities under this annex has been to prevent and control the introduction and interbasin spread of alien invasive species (AIS) from the discharge of ballast water. These species are also referred to as aquatic nuisance species (ANS). When these species are introduced into the Great Lakes waters, they can upset the balance of the natural ecosystem, threaten native species, and cost millions of dollars in control and management. Two well-known examples are zebra mussels and round goby.

“Despite progress in many areas, the Great Lakes Panel has recognized a particularly critical problem: a lack of interjurisdictional consistency in laws, regulations and policies directed at ANS prevention and control efforts. Preliminary research found gaps, inconsistencies and lack of coordination in areas such as the definition of aquatic nuisance species; handling, transport and reporting procedures; and the nature and focus of both regulatory and public information and education programs. Given the ecosystemic nature of ANS infestation problems, and the limited resources to address them, the Great Lakes Panel agreed that enhanced consistency between and among Great Lakes states, provinces, tribal authorities and other jurisdictions would ensure a more efficient and effective regional prevention and control program.”

***Legislation, Regulation and Policy for the Prevention and Control of Nonindigenous Aquatic Nuisance Species: Model Guidance for Great Lakes Jurisdictions Approved by the Great Lakes Panel on Aquatic Nuisance Species, June 1999***

The Commission and the Great Lakes Fishery Commission (GLFC) raised this issue in a 1990 report to Governments, *Exotic Species and the Shipping Industry*. The report emphasized the need for a standardized, systematic, and impartial exploration of possible approaches to managing the urgent problems associated with the introduction of alien invasive species into the Great Lakes.

## **Current Status**

The establishment of the Great Lakes Panel on Aquatic Nuisance Species, chartered under U.S. law, and the annual International Aquatic Nuisance Species Conference (Ninth at Duluth, Minnesota, 1999; Tenth at Toronto, Ontario, 2000) are notable binational and international efforts addressing this problem. The workshop at the Biennial Forum in Milwaukee provided an overview of the current policy status. The workshop concluded that there are no easy solutions to the challenge of preventing new introductions of AIS. However, there was widespread agreement on the need for a definite standard on the allowable discharge of ballast water. Also, there are no simple ways to cope effectively with those AIS already living in the Great Lakes basin. The Great Lakes Panel noted that greater interjurisdictional consistency would lead to greater efficiency and effectiveness.

## Current Control Framework

Fortunately for Canada and the United States, geography has helped to ensure coordinated enforcement of the existing AIS legislation. Vessels entering the Great Lakes must pass through five Canadian locks before entering U.S. waters. Joint boardings by Canadian and U.S. inspectors, which initially took place only in Massena, New York, are now also taking place in Montreal, Quebec.

The two countries have a similar approach to preventing the introduction of AIS by requiring ballast water exchange. The U.S. National Invasive Species Act of 1996 (NISA 96) adopts a regulatory approach. Canada has “Voluntary Guidelines for the Control of Ballast Water Discharges from Ships Proceeding to the St. Lawrence River and Great Lakes.” However, strict penalties apply for false reporting of compliance with these guidelines. The two nations are both working with the International Maritime Organization in developing international standards.

## Challenge of No Ballast on Board Vessels

Perhaps of most concern, as a source of alien invasive species, are vessels classified as “no ballast on board” (NOBOB). Neither the U.S. legislation nor the Canadian guidelines apply under these circumstances. Although they are not carrying ballast water, these vessels carry residual sediment in their ballast tanks that can harbor active and dormant species. These AIS can escape from a ship that unloads cargo in a Great Lakes port and takes on ballast water to travel to another Great Lakes port. Before loading at this second port, the vessel releases its ballast water, which is now a mixture of residual sediment and Great Lakes water. Whatever organisms were present in the tanks may now become established in the ecosystem.

## Inadequate Current Practices

The Commission believes that the existing legislation and resulting practices of both countries are inadequate to protect the Great Lakes from further introductions of AIS. Exchanging ballast water on the high seas poses risks to the vessel and the crew. The Governments should continue to work closely with the shipping industry and the scientific community to develop a standard for discharges of ballast water and residual sediment, allowing

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industry to choose the most effective methodology that meets the standard. The standard must address controlling dormant individuals that, in particular, pose a risk because their resistance to stringent control measures makes them difficult to eradicate.

In previous correspondence to the Government of Canada, the Commission raised the possibility of establishing facilities in the lower St. Lawrence River to treat ballast water in a safe environment. This would include treatment of sediment in NOBOB tanks as well as more effective treatment of full ballast tanks. In addition to offering improved protection for the Great Lakes, such facilities could serve as a research laboratory for emerging ballast water treatment technologies. The Commission reminds the Parties of a November 1998 letter in which it drew the Parties' attention to a binational ballast water research strategy and plan described in the *1996-1997 Binational Progress Report on Protection of Great Lakes Water Quality* prepared by the agencies responsible for the Coast Guard Annexes. The Commission has not received a response to that letter nor has it been informed of the development of a research strategy. The Commission further notes that a possible facility for on-board treatment of ballast water and residual sediment in the lower St. Lawrence River could form part of such a strategy. The Parties should also implement the proposed research strategy in order to realize the benefits of binational coordination on ballast water research.

## Other Sources of AIS

The AIS issue related to nonvessel introductions, such as those from aquaculture, bait fish trade, and aquarium industries, also requires careful attention. There is a threat that AIS may escape from the activities of these industries and subsequently become established in the basin. Recreational boating and fishing also play a role by spreading species geographically within the basin.

The Great Lakes Water Quality Board and the Great Lakes Fishery Commission produced the report *Addressing Concerns for Water Quality Impacts from Large-Scale Great Lakes Aquaculture*, based on a meeting in Windsor, Ontario, in January 1999. The report findings related primarily to protecting water quality. Such practices as controlling feeding and proper site location to prevent the threat of an invasive species becoming established are aquaculture issues. Based upon this work, the Commission sees a need for the Parties to engage the industries, provinces, and states in a coordinated, binational effort to address the complete range of AIS issues, develop a plan of action, and implement an appropriate regulatory system. The Commission recognizes that there is little point in controlling one vector while allowing another to go unchecked.

THE COMMISSION RECOMMENDS THAT:

**The Parties should take the following measures to deal with alien invasive species:**

- (i) adopt and implement the binational ballast water research strategy and plan described in the 1996-1997 Binational Progress Report on Protection of Great Lakes Water Quality,**
  - (ii) give a Reference to the Commission to develop:**
    - (a) binational standards that should be applied to discharges of ballast water, and**
    - (b) recommendations on the most appropriate methods for implementing those standards including, for example, the possibility of on-board treatment of ballast water and residual ballast sediment and the possibility of establishing ballast water and residual ballast sediment treatment facilities in the lower St. Lawrence River.**
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