



Great Lakes – St. Lawrence Shipping and COVID-19

A Summary of Protective Policies and Practices

Prepared for:

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Governors and Premiers**

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Introduction

The Great Lakes and St. Lawrence Seaway (GLSLS) maritime system is a critical piece of infrastructure - supporting regional and national supply chains vital to the economic health of the United States and Canada. Therefore, maritime operations have been exempted from some of the restrictions that are part of the United States' and Canada's response to the coronavirus pandemic (COVID). During COVID's emergence in North America, maritime stakeholders found themselves in a rapidly-changing and uncertain environment, with health and safety guidance being updated on a near-daily or weekly basis. However, as of June 2020, maritime protective policies and plans have been created and implemented, and maritime stakeholders have settled into a commonly-understood "new normal" for safe operations across the system.

This report provides a summary of the major policies and practices in place to prevent or mitigate the spread of COVID in the GLSLS maritime industry. The information provided here was obtained through reviews of guidance published by relevant maritime stakeholders, and consultations with stakeholder groups such as regulatory agencies, industry associations, and select ports. A list of consultees is provided at the end of this report.

Maritime policies and practices related to COVID are similar between the US, Canada, ports, shippers, vessel operators, and other maritime stakeholder groups such as pilots. Based on a review of guidance and consultations with system stakeholders, there are no noteworthy COVID-related policy differences between countries or stakeholder groups which would be likely to compromise efforts to prevent, detect, or mitigate COVID cases in the GLSLS maritime system. **However, it is important to keep in mind that while extensive guidance is available from governments and industry stakeholders, the implementation of protections is the responsibility of individual firms and their employees.**

Sources of Guidance

COVID-related guidance for the GLSLS maritime industry comes from a limited number of public agencies at multiple levels of government as well as industry associations. Guidance has been formulated in a "top-down" fashion, with national health agencies providing guidance to the general public, national transportation agencies providing maritime-specific advice, and industry associations providing tailored assistance that reflects the unique operational contexts of their members. This approach to customizing guidance has helped ensure that GLSLS-specific maritime policies remain in alignment with generalized national guidance.

National and International Guidance

The table below lists the key national and international health and transportation agencies providing guidance on COVID as it relates to maritime operations in the GLSLS. When relevant, links to agency resource centers or information clearinghouses are provided.

Agency Name	Role and COVID Resources
Public Health Agency of Canada (PHAC)	<ul style="list-style-type: none">▪ The lead agency for Canada's response to COVID, alongside local health authorities.▪ Provides generalized guidance on Canada's response to mitigate the spread of COVID.▪ Collaborates with Transport Canada and local health authorities in responding to outbreaks on vessels.
Transport Canada (TC)	<ul style="list-style-type: none">▪ Provides maritime-specific guidance on protective measures, sailing restrictions, shore leave, vessel inspections, and mobility of mariners

Agency Name	Role and COVID Resources
	<p>through news releases, web postings, Ship Safety Bulletins, and Marine Security Notices.</p> <ul style="list-style-type: none"> ▪ Receives vessel health reports, collaborates with PHAC and local authorities in responding to outbreaks on vessels. ▪ Current guidance can be found here: COVID-19 measures, updates, and guidance for marine transportation issued by Transport Canada ▪ Developing a COVID Response Plan with maritime-specific information (Maritime Annex).
<p>US Centers for Disease Control and Prevention (CDC)</p>	<ul style="list-style-type: none"> ▪ The lead agency for the United States' medical response to COVID, in partnership with local health authorities. ▪ Incoming foreign vessels use CDC reporting tools to report onboard illness. ▪ Current CDC maritime guidance on prevention and reporting can be found here: CDC Maritime Resources.
<p>US Coast Guard (USCG)</p>	<ul style="list-style-type: none"> ▪ Tracks foreign vessels entering US ports, collaborates with CDC and local health authorities to address illness onboard vessels. ▪ Issues Marine Safety Information Bulletins relating to COVID and operations such as vessel inspections, reporting requirements, port and facility operations, mariner credentials, vessel, and facility response plans. ▪ Updates on Marine Safety Information Bulletins and other USCG COVID-related news can be found here: Coast Guard Maritime Commons.
<p>International Maritime Organization (IMO)</p>	<ul style="list-style-type: none"> ▪ Issues advice (circular letters) for IMO member states, seafarers, and shipping, including guidance on repatriation of seafarers from foreign countries, provision and use of personal protective equipment, general crew health protection recommendations, management of cases onboard ships, and protocols for crew changes and travel. ▪ IMO guidance and statements can be found here: IMO Media Centre.
<p>World Health Organization (WHO)</p>	<ul style="list-style-type: none"> ▪ Issued interim guidance for addressing outbreaks on vessels: Operational considerations for managing COVID-19 cases or outbreaks onboard ships.

In addition to the agencies listed above, border control agencies such as the Canada Border Services Agency and US Department of Homeland Security have some limited relevance to COVID in the GLSLS, as these agencies are responsible for enforcing border closures. However, marine operations and mariners are often excluded from these closures as they are essential services.

Industry Guidance

Industry associations have facilitated the adaptation of national-level guidance to the unique circumstances of GLSLS stakeholders, and a list of the industry associations consulted for this project is provided at the end of this report. Two of the key types of industry engagement have been:

Information and Resource Sharing – hosting or participating in conference calls and webinars between stakeholders, to create or distribute guidance, or sharing best practices between stakeholders. Some examples of call topics include:



- Vessel operators exchanging information on their operational changes to meet health protection recommendations.
- How to alter crew changes to reduce personal contact.
- Collaboration to purchase personal protective equipment.
- Building trust between vessel crews and shore-based services such as pilots and vessel inspectors.



Development of Response Plans – helping association members develop plans to respond to outbreaks, particularly on vessels. For example,

- The Chamber of Marine Commerce and Lake Carriers Association have developed detailed response plans to ensure their members can quickly and efficiently respond to outbreaks on vessels.
- The Association of Canadian Port Authorities is providing input for the development of the Maritime Annex of Transport Canada's COVID Response Plan.

Implementation

A key principle for the creation of industry efforts has been that **all maritime policies and practices must conform to relevant national, state, or provincial guidance**. However, individual firms and their employees have a measure of flexibility in applying this guidance to meet the unique aspects of their operations. Some of the key stakeholder groups with the implementation of maritime-relevant guidance include:



Vessel-Side: Vessel owners and operators, shipmasters, and vessel crews



Vessel- and Land-Side: Pilotage authorities, vessel inspectors, mechanics, and any other shore-based staff going aboard vessels.



Land-Side: Terminal operators, stevedoring companies, maritime labor unions.

Given the emphasis on conformance with national and state/provincial policies, there do not appear to be any gaps or differences in guidance between GLSLS stakeholder groups that threaten efforts to ensure safety. Key elements of guidance are described in the following sections.

Prevention and Protection

Policies and practices intended to prevent the transmission of COVID to or between maritime employees closely mirror overall guidance for the general public from the CDC and PHAC:

- Coughs or sneezes should be covered with a tissue or elbow.
- Employees should regularly wash their hands or utilize hand sanitizer, especially after coughing or sneezing.
- Staff should observe a 6-foot or 2-meter distance from other staff.
- If social distancing is infeasible, the use of personal non-medical masks is recommended.
- When possible, staff shifts should be staggered to limit the number of staff in common areas such as break rooms or washrooms.
- High-traffic areas and frequently-used equipment should be frequently cleaned, and personal equipment (cranes, forklifts, workstations, etc...) should be cleaned between shift changes.
- Corporate or administrative employees should work from home, if possible.

- Employees who exhibit symptoms of COVID should notify their employer, get tested or receive guidance from local health authorities, and refrain from working until cleared to return to work.

It is important to note that some maritime-related operations are socially-distanced by nature, and observance of many of these common-sense policies does not require additional effort on the part of the staff. For example, cargo handling crews at ports often operate at a distance, or in self-contained equipment such as cranes or forklifts.

Precautions Aboard Vessels

A more unique and pressing challenge for the maritime system has been protecting the health of vessel crews. Vessels have the benefit of being isolated from the general public while they are underway, and crew members aboard larger vessels may have their own individual quarters and spend large portions of their days isolated, working in different parts of the vessel. However, the confined nature of vessels particularly in crew common areas, hallways, and stairways can make social distancing difficult and could make the transmission of COVID easier if personal protection and cleaning guidance are not followed. Therefore, special attention is paid to reducing the number of opportunities for COVID to be introduced to vessel crews, including:

- Ensuring that outside staff coming aboard vessels, such as pilots, mechanics, or inspectors have undergone screenings for COVID and observe social distancing, mask use, and other hygiene protocols.
- Cleaning and sanitizing areas before and after outside staff have been on board.
- Prohibiting non-essential shore leave for crew members.
- Structuring crew changes to reduce possible exposure, such as reducing the frequency of crew changes, and screening crew members in advance of ship boarding. The specific nature of change varies based on vessel type and operating structure of each firm.
- Performing Coast Guard inspections of documentation dockside instead on onboard, and temporarily waiving or postponing select inspection requirements for “trusted” vessels with reliable safety records.

Building Trust Between Stakeholders

Early in the emergence of COVID, friction between some maritime stakeholder groups emerged as different groups lacked an understanding – and trust – of their colleagues’ adherence to safety protocols. For example, vessel pilots were concerned about contracting COVID from vessel crews arriving from Europe, while crews were concerned about infection from pilots. Overcoming these concerns required clear communication of each group’s efforts to protect the other: both sides needed to recognize that the other party was engaged in work to ensure the staff’s safety.

In response to these concerns, the CMC developed its [Marine Industry Trusted Partners for COVID-19](#) initiative, which is intended to help assure Canadian maritime operators that their partners are adhering to a mutually-agreed level of protection. These levels of protection are based on findings of best practices from vessel operators as well as guidance from PHAC and the CDC. To be included in the initiative, companies must submit internal policy documents (*not* press releases or marketing materials) that describe their protective policies. These policies are then reviewed for compliance with Trusted Partner requirements by CMC staff. If a company’s policies do not meet the required levels of protection, CMC staff provide the company with guidance on the specific policy or operational changes needed to meet the requirements of the Trusted Partners program.

Concern about transmission between vessel crews and other staff was particularly acute in Quebec, which receives a high volume of foreign vessel traffic relative to the rest of the Great Lakes. Initially, pilots were concerned about whether or not the minimum reporting requirements were sufficient to maintain safety, and expected vessels to be at sea for at least 14 days before arrival, at which point any COVID symptoms among crew members should have emerged. Later, vessel crews were concerned about infection from pilots. To overcome both pilots' and crew's concerns, the Laurentian Pilotage Authority (LPA) set up two committees made up of pilots and maritime industry representatives. One committee focused on operational considerations – how to implement sanitation and protection procedures for pilots. The second committee focused on communicating this operational information to the maritime industry, to mitigate fears and communicate that LPA operational measures were in line with government instructions. One result of this work was the creation of an “engagement letter” which states the protective measures that need to be taken by both pilots and crews.

Reporting and Managing Cases

While the protective measures listed above will reduce the likelihood of COVID transmission in the maritime sector, outbreaks may still occur. For shore-side staff at ports, reporting and treatment of cases follow guidelines for the general public provided by the CDC, PHAC, and local health authorities. However, dealing with outbreaks aboard vessels that are underway has required additional planning on the part vessel operators, coast guards, and port authorities.

Reporting Cases

Reporting of onboard cases was initially not straightforward, as national-level health agencies do not have maritime-specific experience, and had chosen to delegate some of their decision-making power to state, provincial, or local health authorities. This delegation of authority made it difficult to determine how cases should be reported. Since March, reporting roles and procedures have been streamlined and better-defined, particularly as private industry associations developed their response plans.

Many reporting requirements are specifically related to vessels entering ports from overseas origins. Before arrival in the GLSLS from overseas, all vessels must report the health of their crews to the USCG or TC, and provide updates if any changes occur. However, for vessels already within the GLSLS, vessel masters report to state, provincial, or local agencies instead. The table below illustrates the different reporting requirements based on jurisdiction and voyage type.

Jurisdiction	Voyage Type	Case Reporting Guidance
Canada	Entering from International Waters	<ul style="list-style-type: none"> ▪ If a case is detected before arrival at a Canadian port, report to TC and PHAC. PHAC provides follow-up directions. ▪ If the case is detected after arrival in Canada, inform TC and local health authorities at the port of call for further directions.
	Domestic	<ul style="list-style-type: none"> ▪ Notify TC and inform provincial and local health authorities at the next port of call.
United States	Entering from International Waters	<ul style="list-style-type: none"> ▪ Report to USCG. USCG will coordinate with CDC, who coordinates with local health authorities.
	Domestic	<ul style="list-style-type: none"> ▪ Inform state health authorities at the next port of call.

Responding to Cases

Prior to COVID, vessel operators already had extensive protocols in place for the evacuation of seriously ill or injured individuals. However, operators needed new protocols on how to handle emergent cases of COVID that were not immediately life-threatening, but which pose a risk to the health of the crew.

For vessels arriving from international waters, responding to cases is relatively straightforward as national-level transportation and health agencies take the lead in guiding how and where crews can be discharged and quarantined. However, response roles and responsibilities were less-clear cut for domestic vessel operators, who must report cases to state, provincial, and local health authorities, authorities who may not be as familiar with maritime operations. The potential for uncertainty in response to domestic vessel cases has led domestic ship owner/operator associations such as the Chamber of Marine Commerce and Lake Carriers Association to develop detailed internal response plans and materials for members. Some elements of these plans include:

- Identifying protocols for isolating and caring for crew members while vessels are in transit.
- Identifying berths or anchorages where affected vessels and crews can be diverted and quarantined.
- Identifying necessary supporting services for affected or quarantined vessel crews, including hotel services, specialty cleaning services, and catering services.
- Identifying transportation services to return potentially-ill crew members to their homes.

These internal response plans are not publicly available but are available to industry members through their respective associations.

Future Outlook

Given broader uncertainty about timelines for peaks in COVID cases or the release of viable therapies or vaccines, stakeholders consulted for this project were uncertain about when (or if) restrictions would be lifted in the future. Generally, respondents expected protective measures to remain in place for a year or longer. Additionally, some policies such as limitations on interactions between landside and vessel staff may remain in place after COVID's risks are reduced. Another long-term change that may result from COVID is accelerating digitization of the records used in the maritime industry, as electronic records reduce hand-to-hand paperwork transfers.

Currently, there is broad alignment in policies between different GLSLS stakeholders and geographic areas. This broad alignment can be partially attributed to the all-encompassing nature of the US and Canada's lockdown over the past three months. However, some stakeholders anticipate that as states and provinces open up individually, a patchwork of state- and provincial-level requirements for protection and reporting may emerge. In turn, a potential patchwork could make ensuring mariners' safety more difficult.

In addition to this general policy concern, crew changes on cargo vessels and repatriation of foreign mariners are becoming a concern across the world, including at GLSLS ports. Limited international air travel has prevented the efficient repatriation of foreign mariners in the US and Canada, as well as crew changes for foreign vessels calling in these countries. As a result, mariners are continuing to work past the ends of their contracts, or are stranded ashore waiting for flights home. If difficulty with repatriation continues, supply chains between GLSLS ports and foreign countries could be further disrupted. This issue is further complicated by the need to quarantine vessel crews before repatriation if one of their crew members is diagnosed with COVID.

Further Information – Data Sources

In addition to the government agency pages listed in this report, the following websites are good sources for aggregated information and updates on maritime-related COVID information:

- [Shipping Federation of Canada COVID-19 Resource Centre](#) (Canada and United States)
- [Chamber of Marine Commerce COVID Resource Centre](#) (Canada and United States)
- [MARAD Coronavirus Guidance](#) (United States)
- [International Chamber of Shipping Coronavirus Resources](#) (International)

Consultees

CPCS would like to thank the following organizations who provided information and feedback during this project:

Agencies and Associations:

- American Great Lakes Ports Association
- Association of Canadian Port Authorities
- Chamber of Marine Commerce
- Lake Carriers Association
- Laurentian Pilotage Authority
- Shipping Federation of Canada
- St. Lawrence Seaway Development Corporation
- Transport Canada
- United States Coast Guard

Ports:

- Cleveland-Cuyahoga Port Authority
- Duluth-Seaway Port Authority
- Montreal Port Authority
- Port Milwaukee
- Port of Quebec
- Ports of Indiana – Burns Harbor