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Written Submission for the Standing Committee on Fisheries and Oceans study of Marine Cargo Container Spills

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List of Recommendations

- **Recommendation 1: Increase spill response capacity in relation to marine cargo container spills.**

- **Recommendation 2: Implement a marine debris monitoring and management plan that adequately addresses all forms of marine debris impacting coastlines.**

- **Recommendation 3: Provide greater transparency of the contents of marine cargo container spills and increased accountability to the parties that are responsible.**

Body of Submission

A large percentage of the transport of cargo and fuel around the world is accomplished by large container ships and oil tankers. Although entirely necessary for the efficient functioning of the world's economy, these transport activities are also a source of oil pollution, marine debris, invasive species and other problems.

To mitigate the impact of container spills in the coastal marine environment it is essential to find ways to limit spills from happening in the first place, and also improve the pace and scale of cleanup response.

The World Shipping Council reported that an average of 1,382 containers were lost at sea between 2018 and 2019.[1] The worst year occurred in 2013, when the MOL Comfort sank in the Indian Ocean with a loss of 4,293 containers. Another increase happened recently between November 2020 and April 2021, when it is estimated that 3,000 containers were lost in the North Pacific in five separate incidents.

The full environmental impact of these spills is hard to determine. The immediate ramifications of spills which occur in nearshore environments are most tangible: solid waste polluting sensitive coastal ecosystems, entanglement and injury to fauna, and navigational hazards to boaters from floating debris. These initial impacts have wide-ranging economic and ecological effects: in May 2021, the container ship X-Press Pearl caught fire and sank off the coast of Sri Lanka, spilling chemicals such as sodium dioxide and nitric acid into the water, and solid debris including billions of plastic pellets. The incident precipitated the establishment of a no-fishing zone along an 80km stretch of coastline, affecting the livelihoods and food security of 20,000 Sri Lankan families[2]. Damage to beaches and marine life has also affected Sri Lanka's significant tourism industry. Full understanding of the environmental cost of this spill will only be established through long-term monitoring.

Spills on the open ocean also have damaging consequences for our shoreline and coastal ecosystems. The containers and their cargo, particularly plastics, can persist in the marine environment for decades if not centuries, circulating in ocean currents and eventually making landfall. Research led by Nikolai Maximenko at the International Pacific Research Center (IPRC) has successfully demonstrated how surface currents transport marine debris. This model was applied to the 1,816 containers lost overboard

[1] World Shipping Council Containers Lost at Sea 2020 Update, https://www.iims.org.uk/wp-content/uploads/2020/11/World-Shipping-Council-containers-lost-at-sea-2020.pdf
[2] X-Press Pearl Maritime Disaster Sri Lanka - Report of the UN Environmental Advisory Mission (July 2021) https://postconflict.unep.ch/Sri%20Lanka/X-Press_Sri%20Lanka_UNEP_27.07.2021_s.pdf

from the ONE Apus on December 1st 2020, predicting where debris would accumulate. The IPRC continues to track the spread of debris from this incident, and there have been confirmed reports of items washing up on Washington and British Columbia (B.C.) shorelines from November 2021[3].

On November 3, 2016 the Hanjin Seattle cargo ship lost 35 empty containers in rough seas near the entrance to the Strait of Juan de Fuca. Pieces of shipping containers, sheet metal with foam and a wide variety of other debris was ubiquitous along the West Coast of Vancouver Island[4], posing a threat to public safety as well as causing considerable environmental damage. Plastic foam lining the containers broke down into smaller and smaller pieces, becoming increasingly difficult to remove. Noting the urgency of the situation, the Pacific Rim Chapter of Surfrider Foundation Canada mobilized volunteers, liaising with various government agencies and First Nations partners to execute debris removal efforts. Whilst some compensation was eventually obtained from Hanjin through the efforts of the National Park Service, it was more than seven months after the initial spill and in no way commensurate to the scale of the work required to remove large pieces of debris from rugged, remote shorelines. The magnitude of resources necessary to tackle this kind of spill demonstrated the urgent need for federal support, and Surfrider welcomed the development of Motion 151 - a national strategy to combat marine plastic pollution, including the creation of annual, dedicated funding for community-led shoreline cleanup.[5]

However, on October 22, 2021, when 109 containers were lost from the Zim Kingston cargo ship close to where the Hanjin Seattle spill happened 5 years earlier, it became clear that there is still work to do to close the legislative gaps regarding marine plastic pollution.

Recognising the importance of an efficient recovery, Surfrider immediately began liaising with Parks Canada and the Tofino Coastguard station to discuss preparations should the containers make landfall on Vancouver Island. As it became apparent the containers would wash up further north, we contacted our peers in the B.C. Marine Debris Working Group, detailing our collective resources and communicating this to the Canadian Coast Guard regional command. As many of our network had collaborated on the Clean Coasts Clean Waters Initiative[6] in 2021, we had an established framework for working together, including mutually agreed operating procedures and occupational

[3] Debris from ONE Apus container spill: information and request for reports (last updated March 7, 2022) https://drive.google.com/drive/u/0/folders/1_fkt6nwxuNIJhs7ARt3JizeQ2VfWXVbl
[4] CBC Shipping container debris washes up near Tofino https://www.cbc.ca/news/canada/british-columbia/shipping-container-debris-washes-up-near-tofino-ucluelet-1.3850388
[5] https://www.ourcommons.ca/DocumentViewer/en/42-1/house/sitting-228/order-notice/page-11
[6] https://bccleancoast.ca

health and safety developed specifically for remote shoreline cleanup. Our colleagues at Living Oceans Society were in communication with Quatsino First Nation, whose territory was directly impacted, and our colleagues at Epic Exeo had intimate knowledge of the access points and known debris accumulation spots on the affected stretch of coastline. Within 48 hours of the containers making ground, our network was ready to respond. Unfortunately, the vessel owner was required to hire a contractor to coordinate cleanup before work could begin, during this process the experience, training, and local knowledge of our network was overlooked and we were actively dissuaded from engaging in cleanup.

On October 30th, Surfrider made direct contact with Amix, the contractor coordinating the cleanup. After initially communicating that they required no support, on November 3rd, 2021, Amix asked us to recruit physically fit, trained volunteers with heli-slinging experience, explaining that all travel expenses would be paid. Within two days we mobilized a group of 19 highly capable volunteers with decades of combined shoreline cleanup experience, providing our own collection equipment and PPE, and coordinating all logistics for our crew on a purely volunteer basis.

On arrival, it became clear that no provision had been made to utilize a crew of this size and, lacking direction from the contractors, we set about coordinating our team based on local knowledge and recent survey data from Epic Exeo. King tides had dragged much of the debris back into the ocean, and wind and wave action was already breaking down the debris. Pulverized styrofoam beads had been churned into the shoreline and long pieces of foam packing material were wound tightly through driftwood. The disintegration of debris, coupled with the lack of a public manifest of lost goods, raised serious concerns about how to accurately identify and trace the spread of the debris and hold the responsible parties accountable for the cost of cleanup.

We noted the contractors lacked experience in this kind of shoreline cleanup, as evidenced by their bags of debris staged below the high tide line and inefficient debris removal methods. We were deeply concerned that no effort was being made to sort the debris into recyclable categories, resulting in most of the debris being dumped into the local landfill. B.C. Marine Debris Working Group members have worked with Ocean Legacy Foundation for years to establish end of life solutions for marine debris, and it was galling to see such resource mismanagement.

After this initial response, Surfrider has continued to liaise with the B.C. Marine Debris Working Group and coastal First Nations to share findings from ongoing monitoring. We have reports of container debris from North East Haida Gwaii to Southern Vancouver

Island. Given the extensive length of coastline affected, and the lack of a public manifest, we are curious to know how effective monitoring will be achieved.

Much more needs to be done to improve the effectiveness of the response to this issue on Canadian coastlines. Below are three key recommendations that the Standing Committee on Fisheries and Oceans should consider when addressing this critical coastal environmental issue.

Recommendation 1: Increase spill response capacity in relation to marine cargo container spills.

- Current response capacity does not match the scale and challenges associated with remediating the pollution caused by shipping container spills.
- Given the rapid spread of debris in the marine environment, response to these spills must be immediate. The government needs to create a spill response plan that has assets able to be deployed at a moment's notice.
- Spill response assets need to include the skills, knowledge, expertise, and equipment necessary to address cleanup in rugged Canadian coastal environments. This necessarily includes consultation and engagement of coastal First Nations and the established networks of marine debris removal experts represented by the B.C. Marine Debris Working Group.
- Capacity must be built in the coastal communities and First Nations that are directly affected by these spills.

Recommendation 2: Implement a marine debris monitoring and management plan that adequately addresses all forms of marine debris impacting coastlines.

- Debris from marine cargo container spills is just one form of the much larger marine debris issue impacting Canadian waters and shoreline environments. A dedicated marine debris program needs to be implemented in Canada that is focused on:
    - Monitoring marine debris in all Canadian waters
    - Performing research of debris patterns and trends in Canada
    - Developing tools and resources to help prevent debris from occuring in the first place, including extended producer responsibility and the development of end of life solutions for marine equipment.
    - Strategy and support for the cleanup of debris that continues to accumulate annually.
- Other jurisdictions have developed dedicated marine debris programs, which include emergency response.[7] Canada could create a similar program that

[7] NOAA Maine Debris Division https://marinedebris.noaa.gov/our-work/emergency-response

dedicates important resources that address this ongoing critical environmental issue.

Recommendation 3: Provide greater transparency of the contents of marine cargo container spills and increased accountability to the parties that are responsible.

- Lack of information regarding lost cargo severely limits cleanup efforts. This also poses a safety risk in the case of dangerous contents. Government should require ships' manifests to accurately identify carried goods, including packing materials. This information should be publicly available.
- Adequately addressing a container spill can be very costly. As part of improving its spill response capacity, the government needs to develop a framework for making responsible parties accountable for cleanup costs.

About Surfrider Foundation Canada

The Surfrider Foundation is a nonprofit grassroots organization dedicated to the protection and enjoyment of our world's ocean, waves and beaches for all people through a powerful activist network. Based in B.C., Surfrider Foundation Canada is part of the global Surfrider community of international affiliates located in Argentina, Australia, Europe, Japan, Senegal and the U.S. Surfrider Foundation Canada is a not-for-profit corporation incorporated under the Canada Not-for-profit Corporations Act, S.C. 2009, c. 23. Surfrider Foundation Canada is also a registered charity under the Income Tax Act, R.S.C. 1985 c.1.

Surfrider Foundation Canada currently has three local volunteer-run chapters based in Tofino/Ucluelet (Pacific Rim Chapter), Victoria (Vancouver Island Chapter) and Vancouver. The organization also supports two school clubs at the University of Victoria and Ucluelet Secondary School.

Surfrider Foundation Canada focuses on addressing several key coastal environmental issues, including plastics reduction, ocean protection, beach access, coastal preservation and water quality. Most relevant to the issue of marine cargo container spills is our work on ocean protection and defending the oceans from challenges threatening the vitality of its ecosystems.

Surfrider Foundation Canada works to protect our ocean and address the dangers to it, today and in the future. Our Ocean Protection Initiative includes mobilizing grassroots campaigns to respond to the cleanup needs associated with marine cargo container spills, and participating in regional ocean planning (e.g. B.C. Coastal Marine Strategy).