THE HUDSON BAY CONSORTIUM

Environmental Response in the Canadian Arctic

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The provision of effective environmental response (ER) - the prevention, containment, and clean-up of harmful spills, most notably oil - in Canadian Arctic waters is a complex challenge of significant concern to the communities of the Hudson Bay Consortium.[1] Extreme weather, remoteness, limited resources and population, sea ice and other hazards present significant barriers to Canada's ability to provide timely, equitable, and appropriate spill response services to the people living and working in this vast northern region. Jurisdictional complexities and complicated regimes of regulations, guidelines, and accountability leave many Arctic residents unsure over who to call or who is in charge in the event of spill, how it will impact their communities, and who will compensate for any damages.[2]

> *"Our biggest concern is how much the food would be impacted out in the marine region, how long (a spill) would affect the wildlife, how long do we wait before we can harvest our traditional food. The longer the delay for clean-up, the longer the delay for food..."*
>
> Elder Isaac Masty
> Whapmagoostui, Quebec

This paper will provide a brief overview of Canada's emergency response framework for Arctic waters, including the marine regions south of 60°N represented by the Hudson Bay Consortium. It will examine Canada's current regulatory and operational ER framework, recent efforts to increase ER capacity in the far North and offer some perspectives on ER from those living in coastal communities in the region. While Canada has yet to experience any major Arctic spill disasters, the specter of a catastrophic event from a fuel resupply vessel or other large commercial or cruise ship, or even a modest spill in an ecologically sensitive area, is an ever-present threat to the primarily Indigenous Peoples living in this remote region and the sensitive marine environment on which they depend.

Regulatory Framework for Arctic Environmental Response

As with many cross-cutting issues in Canada, the regulatory framework that governs environmental response (ER) in Canada straddles two Federal ministries, the Department of Fisheries and Oceans and Transport Canada, and includes a complex web of legislation, regimes, agreements, and guidelines. While a detailed discussion of the content and contribution of these instruments to the authority and operations of environmental response is beyond the scope of this paper, some reference to the main components of the regulatory regime is essential to an understanding ER governance.

The "Canada Shipping Act" (2001) under the authority of Transport Canada (TC) essentially controls what ships can and cannot do in Canadian waters, including matters associated with spills. More specific to Arctic shipping are a complimentary suite of laws and regulations, including the Arctic Waters Pollution Prevention Act (1985), the National Oil Spill Preparedness and Response Regime (1995), the Arctic Shipping Safety and Pollution Prevention Regulations (2017), the Ship Source Oil Pollution Fund (2001), and most recently, the Arctic Shipping Safety and Pollution Prevention Regulations (2018). This latter piece of legislation codifies the International Marine Organization's (IMO) International Code for Ships Operating in Polar Waters, more commonly referred to as "the Polar Code", into Canadian law[3] and was widely heralded as a significant advancement in Arctic shipping safety.

The Department of Fisheries and Oceans (DFO), the second ministry implicated in spill response, administers the "Oceans Act" (1996/2001), legislation designed to protect the environmental integrity of Canada's coastal waters, including matters related to ocean pollution. Most importantly, this Act awards responsibility to DFO for the Canadian Coast Guard (CCG), the special agency that is the operational

arm of the ministry tasked with ensuring the safety of mariners on Canadian waters, including marine search and rescue (SAR) and protection of the oceans.[4] Under Section 41(1)(d) of the Oceans Act, CCG is made directly responsible for "marine pollution response"[5], an all-encompassing mandate that includes ship source pollution, mystery spills, spills that occur loading or unloading oil, and transboundary spills where the pollution spans or migrates from one national jurisdiction to another[6].

The Coast Guard also operates the Arctic's Marine Communications and Traffic Services (MCTS) center on a seasonal basis out of Iqaluit, Nunavut. Focused on safety and monitoring, including spills, MCTS performs Alert and Warning Network (AWN) desk duties and provides Navigational Warning services.[7] All large vessels (over 300 tonnes) sailing in Arctic waters above 60°N are obliged by law to report to MCTS daily under the Northern Canada Vessel Traffic Services Zone Regulations (NORDREG). Of relevance to the HBC, NORDREG regulations have been expanded to capture marine traffic that sails through Hudson Bay, James Bay, and Ungava Bay, as well as Kugmallit Bay in the Western Arctic, thus codifying these preventative measures on ships sailing in these vulnerable regions. MCTS in Iqaluit is notably the Coast Guard contact to be called when a spill is discovered and the center to whom ships must report when a spill occurs in Arctic waters.

While authority for the Coast Guard clearly falls to DFO, the agency also derives a portion of its ER mandate from Section 180 of the Canada Shipping Act. Under this Transport Canada legislation, the CCG is obligated to maintain a national spill response capacity, manage a National Response Team, and provide appropriate response at the time of a marine spill as the Incident Commander.[8] The Act also stipulates any vessel passing through Canadian waters is required to have a shipboard oil pollution emergency plan, as well as an arrangement with a certified response organization capable of responding to an oil spill on behalf of the polluter.[9] Of note, there is only one private ER firm, ECRC Services, that claims to have ER capacity in the HBC region, though all of their equipment and personnel are located in the south. Above 60°N, the Coast Guard remains the primary ER agency available to respond to ocean spills, rendering this last Shipping Act requirement somewhat moot in the North. A higher level of spill readiness and emergency planning and response is required of ships carrying and/or transferring oil. These vessels, including sea-lifts providing fuel resupply to Arctic communities must, by law, carry oils spill response equipment and be fully self-sufficient in ER in the event of a spill.

On the international front, Canada is a signatory to an international agreement on oil spills, the "Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA)" negotiated and signed by all eight Arctic states in 2013 under the auspices of the Arctic Council. Its objective is to strengthen cooperation, coordination, and mutual assistance among the Parties on oil pollution preparedness and response in the Arctic in order to protect the marine environment from pollution by oil."[10] Exercises and other obligations under the MOSPA agreement also fall to the Canadian Coast Guard/DFO, as does Canada's ongoing participation in the Emergency Planning, Preparedness and Response (EPPR) Working Group of the Arctic Council. EPPR is a circumpolar forum that facilitates projects and research focused on prevention measures and improved response to Arctic disasters writ large, but with particular attention to marine spills and events.

While this brief overview has only skimmed the extensive regulatory framework that governs shipping and environmental response in the Arctic, it is important to note a few of the most important tenets of the Canadian spill regime. Chief among these is the "polluter pays" principle enshrined in various legislative instruments, including the Canada Shipping Act. This imperative places responsibility for the response to a spill from a privately-owned commercial vessel, as well as all associated costs, including those for damages, liabilities, and remediation, directly onto the ship owner.

That said, all ER responses in the Arctic fall under the supervision of the CCG as "Incident Commander" and the agency mandated to ensure each response meets all environmental and safety standards set out in law. In practice, it is most often the Canadian Coast Guard itself that handles the response to an ER emergency in Arctic waters, given the limited ER resources and services in the region, and the likelihood the ship owner is "unknown, unable or unwilling"[11] to affect a response or the response is deemed to be "insufficient or inappropriate.[12] While other Federal departments or levels of government may be ultimately responsible for reclamation and/or remediation following a spill, the CCG remains the agency that enables and facilitates all the required processes associated with an ER response.

Claims for compensation for an Arctic spill, whether by the CCG to recoup its costs for a response to a spill from a private vessel or by those impacted by the spill, are mainly directed to the Ship Source Oil Pollution Fund (SOPF). Statistics from 2021-22 published by the Fund indicate a very poor likelihood of reimbursement. Of $26 million in new claims filed with SOPF that year for all spills in Canadian waters, less than $1 million was paid out.[13] The fund heralds the fact that 9 out of 10 claims were settled within 9 months of filing,[14] suggesting most claims are significantly reduced or met with an efficient rejection. Such statistics would prove a cautionary tale to any Arctic community trying to gain compensation for impacts of a spill.

This poor record of compensation of CCG and other claimants by the SOPF has been well noted by authorities and is currently being addressed within Transport Canada's legislative review of the Marine Pollution Preparedness Response (MPPR) Regime. While it is hoped this process will lead to a more equitable and comprehensive program for spill compensation, the review may take up to seven years to complete and operationalize,[15] making any quick redress of the issue unlikely.

Recent developments in Arctic ER

In October of 2018, the Canadian Coast Guard took a significant step forward in Arctic operations and policy with the creation of a stand-alone "Arctic Region". This represents a sea change in the culture and focus of the organization vis-a-vis the North and acknowledges the region has been poorly served by policies designed in the south with minimal engagement or input from northern communities and Peoples.

> *"Decision-making needs to happen in the North, not from people who are thousands of kilometres away, who may have, in some cases, never even set foot in the Canadian Arctic."*
>
> Neil O'Rourke, Assistant Commissioner
> Canadian Coast Guard, Arctic Region

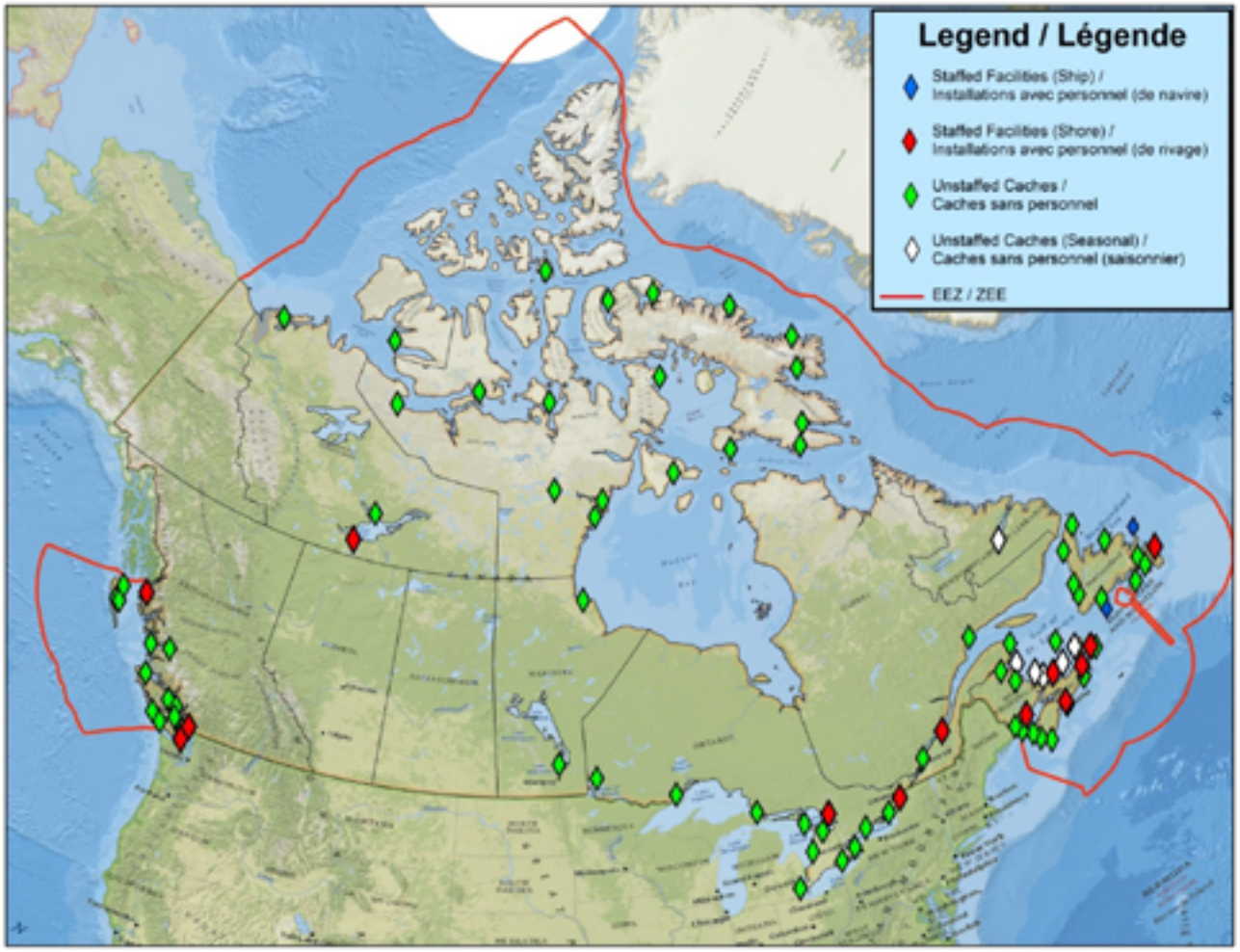
With an eye to "co-management", this reorganization has marked a notable shift in the Coast Guard's attitude toward, and relationship with, the largely Indigenous communities it serves in the North. It has formalized an institutional intention "to advance reconciliation through a distinction-based approach to engagement & collaboration"[16] with all Arctic Peoples and their representative organizations. To this end, the CCG intends to establish regional governance frameworks, increase the number of CCG staff in the North through a targeted, northern human resources strategy, actively recruit Inuit, First Nations, and Métis members, and improve Arctic operational readiness and marine safety.[17]

In the five years since the creation of the Arctic Region, some notable progress has been realized. Coast Guard has established an Indigenous Relations and Partnership team based out of Yellowknife who serve as an initial point of contact with all Arctic communities. In the event of a spill emergency, these members would coordinate between the community and the CCG ER people on the ground, presumably

resulting in better communications and information-sharing. CCG ER has also recruited an allNunavummiut ER team and established an ER equipment depot in Iqaluit[18], increasing environmental response capacity and local staff in the immediate region, though much the of HBC region would still be serviced from the Churchill ER depot.

The fleet of Arctic Coast Guard vessels is also realizing a sizeable, albeit long-term, boost with the renewal of 18 ships under Canada's National Shipbuilding Strategy (NSS). The more recent announcement of two heavy icebreakers to be built by 2030 will eventually afford the Coast Guard a year-round presence in Arctic waters. This renewed fleet and icebreaking capacity, once achieved, should somewhat enhance the future effectiveness of spill response in the Arctic by placing more ships, equipment, and personnel in Arctic waters for more months of the year and providing state-of-the-art technology to monitor ship activity and respond more effectively to spills when they occur.

Despite these positive developments, the current state of environmental response in the North remains relatively minimal, with ships, expertise, and resources spread thinly over Canada's vast Arctic waters. The four main CCG ER depots located in Tuktoyuktuk, Hay River, Churchill, and Iqaluit are equipped with spill response gear that can be transported by plane and deployed at a spill site. The seven CCG ice breakers that traverse the Arctic from June to November (2022 season) have supplementary ER equipment and personnel, but given the vast geography they cover, could be days away from an incident. CCG has also placed community ER caches at strategic points throughout the Arctic region, but these are tertiary depots and mainly intended to address shoreline spills.[19] As the diagram illustrates, there are currently no ER caches in Nunavik or Ontario Cree territory, leaving only the main depot in Churchill to service the entire Hudson Bay region.



Community caches (illustrated above) remain under the authority of CCG and according to CCG can be made available with permission to trained responders (e.g. in industry) for any emergency or for environmental protection. Logically, this activity must not reduce CCG's own readiness to respond and any equipment broken by others must be replaced. Presumably such restrictions on the usage of the ER equipment are imposed for safety and liability reasons, given the high-risk nature of ER. Thus, in the event of a spill and until such time as local responders can be trained and ER certified, communities in the North must wait for CCG personnel, or other trained persons, to arrive on scene by ship or air to deploy this local spill equipment.

Gaps and Opportunities

> *"The biggest thing is to optimize local and regional resources – we have to be able to take care of ourselves first before we have the luxury of outside assistance..."*
>
> Craig Lingard,
> Director of Civil Security, KRG

Throughout interviews held with community members in support of this paper, several common themes emerged regarding gaps and deficiencies in the current ER system. Deep concerns were expressed over the potential impact of a major spill on food security, the marine environment, and health, but most acute was frustration expressed over the lack of ER training and equipment available to local responders to address spill events in or near their communities. Given their remoteness, communities would prefer to be more self-sufficient in ER and work with their counterparts in private industry or the CCG as respected partners in the larger ER response network, rather than wait passively for outside agencies to arrive and respond as is currently the case.

According to the Canadian Coast Guard, the training of local community members for environmental response remains a challenge. Several factors for this were cited, including the hazardous nature of the work, lawyers' concerns over potential liability, and the fact that CCG cannot use volunteers in environmental response. The scope of funding that would be required to train and certify ER technicians in each remote northern community, provide ongoing compensation for local ER responders, renew certifications and personnel on an ongoing basis, and supply and maintain ER equipment in every coastal community is no doubt prohibitive, as well as logistically complicated.

And yet, frustration over this lack of inclusion of local responders in the Arctic environment response framework is palpable. "We have the will, the intention and sometimes even the resources, but we don't have the structure - we're working autonomously most times anyway, so give us the appropriate structure"[20] was the plea of one senior Nunavik emergency manager. It was noted that the main source of funding available to support local ER or search and rescue training in Nunavik is the Hunter Support Program (HSP), a fund derived from the James Bay and Northern Quebec Agreement to support Inuit who engage in hunting, fishing, and trapping activities. While it is very likely to be the hunters and fishers who would be first to spot any spills in the vicinity, the HSP fund was intended to support Inuit food sovereignty and security, not to underwrite the cost of emergency preparedness.

While it has been established that companies transporting and offloading fuel to communities by sea must by law be equipped to deal with any spillage, accountability to the communities for any impacts or damage caused by a spill appears minimal. Communities dissatisfied with the clean-up results might find themselves in dispute with the very company they depend on for their annual resupply, making the resolution of such disputes decidedly awkward. As was previously mentioned, the Ship Source Oil

Pollution Fund has proven to be an inadequate source of redress for those impacted by oil spills, leaving northern communities particularly vulnerable to the adverse consequences of any spills.

The state of the infrastructure related to oil transfer and storage, at risk for a spill, is another area of concern to northern residents. Elder Masty cited his community's fear over the proximity of their tank farm to a major body of water and the potential impacts that would occur if there were ever an incident. On a similar note, the wharfs in Nunavik were built over twenty years ago for use by the local hunters and fishers and these same facilities are now operating at double or triple capacity without benefit of upgrade or expansion. Traffic is such that resupply ships in the harbours are left spinning at anchor, susceptible to wind and ocean conditions, creating a notable hazard, and larger pipes are needed to transfer fuels to reduce shore time and minimize risks. Ideally, each community would have a harbour master familiar with local conditions to direct traffic and ensure the safety of all.

Fundamentally, the greatest challenge for Northern communities in emergencies, including spills, appears their disconnect from authorities. The system was described as a quagmire. Local authorities do not know who to notify or who is responsible for a spill. Communications with the various jurisdictions was described as "vague", with intervention hours or days away and the only ER resources available are what the industry itself brings. The industry's self-regulation was considered the weak link and communities do not know or trust the integrity of all the players involved in a response.

While these gaps and challenges are significant, some solutions were suggested. Among these was the creation of a new emergency coordinator position for each community who would be responsible for all emergencies, including environmental response. This individual would be given proper training across the broad range of potential emergencies, including SAR and ER, would be familiar with the myriad federal, provincial, and territorial authorities and response systems, aware of all notification protocols, and able to provide the initial "eyes on the ground" steps of identification and triage for external responding agencies. More importantly, this individual would be a trusted member of the community who could provide the leadership required in any emergency to ensure the most appropriate response and the safety of all.

Future progress on the Coast Guard's Arctic agenda is expected and much is riding on DFO's Ocean Protection Plan (OPP) 2. This renewal, announced in late fall of 2022, holds the promise of more ER training for communities down the road, will address outstanding issues such as compensation and liability for marine incidents, and promises to close the gaps in Arctic ER. "Integrated Response Plans" will be developed through active engagement with the regions, and using the distinctions-based approach, agreements will be negotiated with land claims organizations and Indigenous governments and organizations.

Conclusion

While the development of a comprehensive environment response system in the far North remains very much a work in progress, the intent of the Canadian Coast Guard to foster greater engagement and collaboration with local Arctic communities and Indigenous Peoples suggests the prospect of a more positive way forward. That said, the years of relative neglect, the colonial culture, and a legacy of misguided policies from the south have fostered a certain level of distrust and scepticism among northern communities. Concrete actions that respond directly to local ER needs and concerns will be required to put meat on the bones of CCG's commitment to a more integrated and inclusive response network.

With the prospect of greater marine traffic in Arctic waters on the near horizon, it is essential the HBC continue to include environmental response as part of its ongoing dialogue with the Canadian Coast Guard and its partners. Continued engagement with Northern communities, Indigenous leadership, and emergency responders throughout the region will help to enhance the safety of all mariners and protect the integrity of the ocean environment for the benefit of all.

Endnotes

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[6] Interview with Kevin Knapp, Canadian Coast Guard, Environmental Response, conducted by telephone April 3, 2023

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[10] Arctic Council, "Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic", 2013. https://oaarchive.arctic-council.org/handle/11374/529, accessed April 6, 2023

[11] https://www.ccg-gcc.gc.ca/environmental-environnementale/program-information-programme-eng.html, accessed April 3, 2023

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[19] Ibid

[20] Interview with Craig Lingard, Director of Civil Security, Nunavik, conducted by telephone March 27,