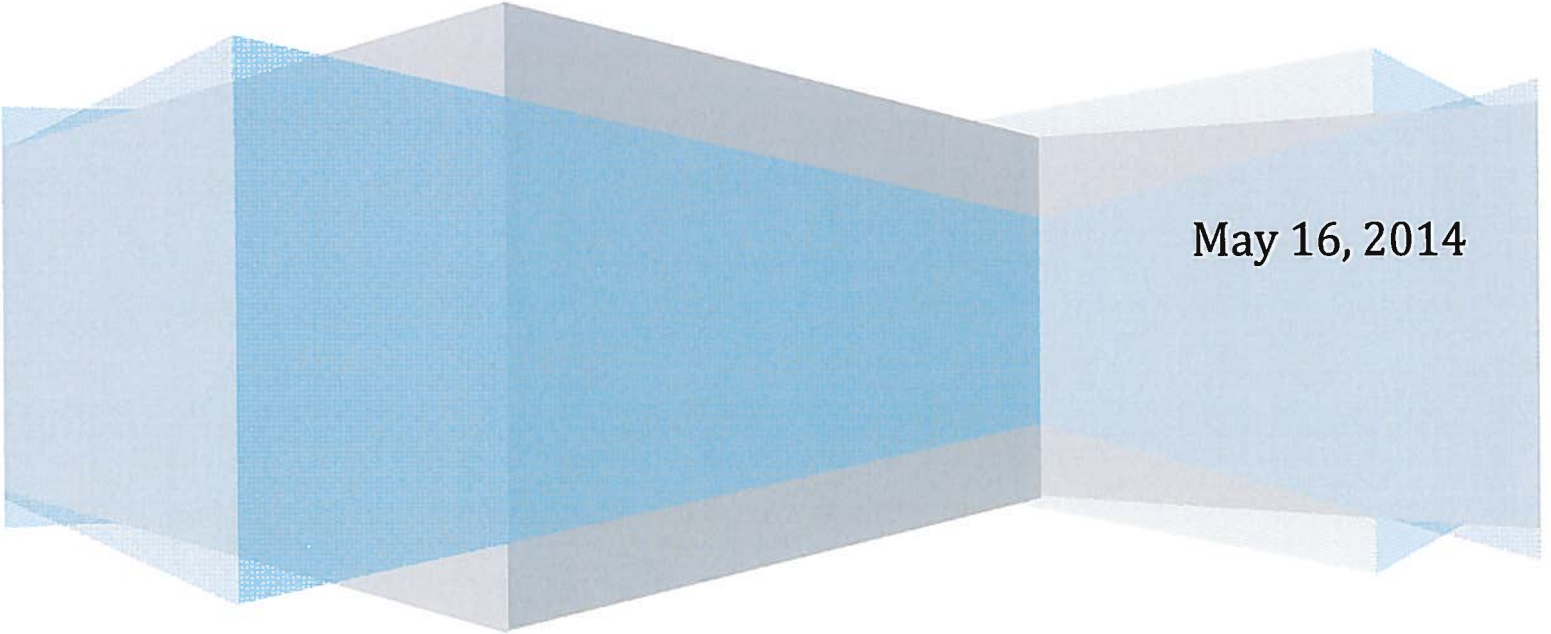


Submission to the Transport Canada Tanker Safety Expert Panel

Panel Review Phase II: Arctic Ship-Source Spills

Presented by Makivik Corporation



May 16, 2014

The Government of Canada, through Transport Canada has struck a panel of experts to conduct a pan-Canadian review of an assessment of Canada's regulated ship-source oil spill preparedness and response regime. To date this panel has prepared a report entitled "A Review of Canada's ship-source Oil Spill Preparedness and Response Regime – Setting the Course for the Future". In phase II the panel, as we understand it, are focussing on ship-source spill preparedness and response requirements specifically for the Arctic as well as on national requirements for a hazardous and noxious substances (HNS) system, including liquefied natural gas with a report to be tabled to the Minister of Transport by the fall of 2014.

Makivik Corporation (hereafter referred to as Makivik) is the Land Claim organization representing the 12,000 some Inuit of northern Québec in the region known as Nunavik (roughly translated from Inuktitut, as "the land where we live"). The mainland Nunavik region covers an area of some 500,164 km², representing 36% of the total area of Québec. The offshore island land quantum owned by Makivik on behalf of all Nunavik Inuit constituents, comprises an area of approximately 7,000 km². The entire Nunavik area, both inshore and onshore is by virtue of its geography, climate, language and culture, a part of the Arctic. The designation of the 60' North latitude defining the southern boundary of the arctic is in our view, an artificial geo-political border hence for purposes of this submission Makivik considers and presents its views in context of all of Nunavik and its offshore region as being integral to the Arctic, not just the portion north of the 60' North latitude.

Makivik is a not for profit ethnic organization which came into effect in 1975 pursuant to the signing of the James Bay and Northern Quebec Agreement (JBNQA). The JBNQA is recognized as the first truly modern Aboriginal treaty and its signing provided a legal status, a special regime of governance and specific rights for the Inuit, all protected by legislation. In 2007, Makivik further signed the Nunavik Inuit Land Claims Agreement (NILCA) which additionally recognized the rights of Nunavik Inuit to the offshore region around Québec, in northern Labrador and offshore northern Labrador. In doing so Makivik has a duty to protect and implement the NILCA and the mandate to ensure the economic, social and cultural well being of Nunavik Inuit. Pursuant to the NILCA Makivik is further the owner (in fee simple) of 80% of the islands in the Nunavik Marine Region (NMR). This ownership includes sub-surface rights for all materials (including gold) and provides a regime for access and entry overseen by Makivik.

Based on its above-stated mandate Makivik provides its comments and recommendations in relation to the transport of petrochemical and HNS products in the Arctic. Makivik wishes to highlight as a preface, the fact that unlike the vast majority of southern Canada, most residents of the Arctic have no other option of receiving the preponderance of their commodities than by sea lift. In the case of heating fuel, gasoline and other petrochemicals there is no other choice for residents of the eastern Arctic; all of it must be shipped via sea lift as no road or rail net work exists nor is air transport economically viable except for very small quantities. Residents are therefore captives of their geography and are exclusively dependant on tanker traffic while equally being directly impacted by potential spills.

Makivik wishes to highlight that the Canadian Arctic is a geographically immense area, sparsely populated and with climatic and geomorphologic differences across its span from east to west and south to north. Climatic changes are occurring that will likely influence the presence of both increased industrial development including, but not limited to, mineral and petrochemical exploration and extraction with an attendant rise in ship transits.

The current rush by various Nordic countries to claim sovereignty to parts of the world's Arctic exemplify the interest in resources potentially to be found in the Arctic. Moreover the lure of shorter and less expensive transit of various ships through the Northwest Passage again signals the likelihood of more shipping traffic and the increased certainty that a large spill of some material will inevitably occur with significant impacts resulting. The overall uniting elements of the pan-Canadian Arctic are the diverse and unique wildlife that are found there seasonally or year round, the extreme of cold and ice conditions and possibly the most important aspect is the Inuit who have resided in the Arctic for millennia and who rely on Arctic resources as an integral part of their diet and culture. In this regard it is critical that all aspects of the current process Transport Canada is engaged in, receives "buy-in" from Inuit residents. Design of response capacity and its implementation should take into account the vast knowledge of Inuit regarding all aspects of their environment. They have a deeply vested interest in ensuring things are done to minimize impacts.

Makivik is therefore greatly concerned about the notion of tanker-source oil or HNS spill preparedness. In specific our greatest concern is the absence of demonstrated response capacity to deal with any significant spill event. This includes the necessary dedicated funding to employ manpower with appropriate training, equipped with the appropriate equipment and based in the Arctic who can respond within a reasonable delay.

The designation of specific agencies (government and non-government) with defined communication plan, defined responsibilities and decision matrices is paramount. These agencies must receive dedicated block funding in a timely manner to permit the hiring of staff and purchase of equipment.

Given the unique conditions of Arctic waters, are the standards in place for vessels and response capacity sufficiently rigorous, by comparison with southern waters? Makivik asserts that the design of response to spills must be uniquely tailored to the Arctic and must achieve higher and more rigorous standards. Under the Canada Shipping Act, 2001 oil tankers are required to have double hulls. However is this sufficient? Makivik contends that added requirements including a minimum of ice-class are needed for tankers in the Arctic carrying crude oil and HNS substances in particular.

The question of whether "everyone" should be permitted to be in the Arctic should be examined. More precisely, it is critical to have a process in place to ensure that all vessels transiting the Arctic and carrying petrochemicals or HNS meet all regulatory standards in terms of construction, what they are permitted to carry, and that all equipment required in the event of any spill is on board and that ship crews are fully trained in their use. This can only function if a monitoring oversight system is in place to ensure compliance. Makivik questions whether the capacity of Canada's aerial

surveillance system is sufficient to monitor tanker traffic, to enforce standards and to assure compliance to regulations.

Currently Makivik understands that Transport Canada implements policy preventing tankers exceeding 40,000 tonnes deadweight from transiting southern portions of BC's Inside Passage. Makivik believes that this is a policy that should be equally implemented in the Arctic or at least certain waterways in the Arctic.

A major concern relates to the general paucity of accurate charts for Arctic waters. Although areas proximate to communities are well documented other areas are less so. Given the greater draft of fully loaded tanker vessels and their reduced manoeuvrability due to length and weight this is a cause for concern. Efforts should be expended to expand bathymetric knowledge of Arctic waters.

Mechanical problems related to engine or steering failure are equally of great concern. It is Makivik's understanding that no tug boat vessel of sufficient capacity to tow a disabled fully-loaded tanker vessel to safe harbour is stationed in the Arctic. This must be considered and remedied. In addition, in the event of severe weather conditions there is equally concern given the general absence of safe harbour, especially deep sea ports (if required because of vessels draft) for ships to find safe harbour and weather out storms.

It is Makivik's understanding that shipping of Liquid Natural Gas requires specialized transport vessel. Equally response and containment of any leakage of Liquid Natural Gas requires different equipment, technology and training of personnel charged with response activities.

It is unclear to Makivik how hazardous and noxious substances (HNS) are currently defined. Moreover, it would be valuable to know whether there are efforts to expand classification of substances considered as HNS's.

In response to the recent oil spill disaster involving rail tanker cars at Lac Megantic, Québec a lot of discussion has centred among other things, on whether communities through which such shipments are transiting are adequately notified both in regards to nature of the shipment and its timing. The same debate is relevant in respect to tanker ship transits in the Arctic. Makivik asserts that communities should be informed in advance of expected shipments to ensure response capacity can be enacted.

It is Makivik's understanding that in the case of ship-to-shore transfer of petrochemicals, on shore personnel do not receive sufficient training nor are involved in regular simulated spill exercises to permit 'real life' experience invaluable when dealing with an actual spill.

In the event of ship to shore spills adequate equipment should obviously be on site. That said, in the absence of equipment or equipment malfunction, a contingency plan should be considered including air lifting equipment on site from centrally stock piled bases. Most Arctic communities have airstrips that can now accommodate the landing of aircraft, such as a Hercules, which could airlift equipment on-site.

In the case of Navigational Aids in the Arctic it is Makivik's understanding that buoys or any floating aids are not practical because of ice conditions requiring seasonal renewal and placement. Reliance is therefore on some existing lighthouses and electronic aids. This should be remedied through installation and testing of new navigational systems.

Makivik has concerns about the potential impact of spills on commercial fisheries that it has partnership interest in. Commercial fishing for shrimp (both *Pandalus borealis* and *Pandalus montagui*) is carried out in Hudson Strait and into Ungava Bay. The annual harvest level is 6750 tonne; this is established through scientific analysis and approved by the two regional management boards, namely NWMB and NMRWB. The shrimp are located at depths of 300 to 400 meters and exist in many locations from Resolution Island going west to 70 degrees longitude. Water temperature depth and ecosystem play a large role in the recruitment and development of this fishery. Value of the shrimp vary from year to year however in 2013 it had a FOB value of \$27.0m of which 50% was for Nunavik. Of this amount \$260,000 was for beneficiary employment income. The fishery takes place over the ice-free period from July to December; the last vessel to leave the area was on December 18, 2013. Vessels utilized in the fishery are approximately 70 meters in length.

Makivik is particularly concerned about potential impacts of any spills on the harvesting culture and traditional lifestyle of Inuit. As aforementioned the Inuit culture and their continued reliance on country food harvested from the land, air and oceans of the Arctic define them as a unique people. Oil spills affecting either the animals they harvest or polluting the shorelines they utilize would be potentially devastating. Country foods, in particular marine mammals are not only more palatable to Inuit consumers but have been demonstrated to provide numerous health benefits. Moreover these harvesting practices reaffirm Inuit identity and foods procured are cheaper than southern sourced store bought equivalents.

Sensitive areas that include aggregations of sea birds at nesting colonies (for example) should be avoided entirely or given a wide berth particularly during nesting season. Sea birds are particularly sensitive to oil spills as the isolative value of their feathers and down is rendered useless hence they perish both from exposure and the toxic nature of prolonged contact with certain petrochemicals. Polar bears and pinnipeds are equally very sensitive to oil contamination. There is absolutely no capacity in the Arctic to deal with decontaminating either water fowl or marine mammals in the event of any spill, substantive or otherwise. Examples of areas that should be avoided in Nunavik are Akpatok and Digges Islands that host some of the largest breeding colonies of murres.

Haul out sites for walrus are equally important areas to avoid given seasonal congregation at these locations and the impact of oil spills not only directly on vast numbers of walrus but also poisoning of walrus that ingest oil spill contaminated bivalves, particularly clams on which they rely as their principle food source. Examples of these sites in Nunavik include Akpatok Island, Nottingham and Salisbury Islands, Mansel Island, Charles Island, the King George and Ottawa Islands among others.

Beluga whales take advantage of various estuaries to moult epidermal layers by rubbing on the substrate. Strong site tenacity is exhibited with belugas returning to the same locations annually. Water temperatures have been identified as warmer at these estuaries and they have been shown as important “nursery” sites for calves accompanying female belugas. As a consequence these sites and the belugas present could be significantly impacted in the event of spills. Critical sites in Nunavik waters include estuaries at Mucalic, Nastapoka and Little Whale river.

Areas of the Arctic have and should be considered to receive special consideration and protection for different reasons. These may include uniqueness regarding either their flora or fauna; historical value, geomorphology or cultural value. A location such as Richmond Gulf with its unique cuestas is one such location in Nunavik that deserves recognition and protection from potential spills.

Given the aforementioned comments about sensitive areas, it is critical that mandatory exclusion zones be considered for certain areas in the Arctic that are deemed requiring protection. Any decision about what areas should be denoted exclusion zones should have explicit Inuit involvement. Another consideration is to have mandatory pilotage zones for areas that are known to have challenging steerage conditions (currents, width, depth of channel or passageway etc). Tidal ranges in the eastern Arctic are extreme. Current measurements indicate that tidal range in Ungava Bay equals or exceeds that in the Bay of Fundy. Issues of pilotage, accurate charting, adequate navigational aids and the potential impact of spills in an area exhibiting such tidal extreme become paramount.

As aforementioned, Makivik Corporation signed the NILCA agreement in 2008 and consequent to this signing, three institutions of public government (IPG), the Nunavik Marine Region Wildlife Board (NMRWB), the Nunavik Marine Planning Commission (NMRPC) and the Nunavik Marine Region Impact Review Board (NMRIRB) respectively. Each of these IPG’s has specific mandates and authorities and in respect to protection of environment, habitat and wildlife applicable provisions of the NILCA must be respected as concerns oil spill prevention and response.

Makivik would like to thank Transport Canada and the members of the Tanker Safety Panel for the opportunity of presenting its views regarding Arctic-Ship-source and ship-to-shore spills of petrochemicals and HNS’s. We trust that you will give due consideration to the concerns presented given the aforementioned fact that the Arctic is homeland and the source of a significant part of the diet of the Inuit residing therein.