

Lines of Inquiry Panel Review Phase II: Hazardous and Noxious Substances

These Lines of Inquiry are intended to provide general structure to the Panel's review and draw out information and perspectives through written submissions or face-to-face discussions that will be useful in the Panel's deliberations. The Panel is not limited to considering questions outlined in these Lines of Inquiry. As Canada has recently signalled its intent to ratify the International Maritime Organization's (IMO) *International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 2010* (2010 HNS Convention), the Panel's review will not include liability and compensation matters, but will focus on matters pertaining to preparedness and response for ship-source HNS incidents. Once brought into force, the 2010 HNS Convention would establish a liability scheme to compensate victims in the event of a spill of HNS at sea. In order to implement the 2010 HNS Convention in Canadian law, the Government has proposed amendments to the *Marine Liability Act*. These proposed amendments form part of Bill C-3, *Safeguarding Canada's Seas and Skies Act*.

The IMO has also adopted a *Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000* (OPRC-HNS Protocol) that provides a high-level framework for international cooperation on preparing for and responding to HNS incidents in the marine environment. Although the OPRC-HNS Protocol is in force, Canada is not a party. The Panel's review of ship-source HNS incidents will undoubtedly contribute to the Government's policy regarding accession to the OPRC-HNS Protocol.

Notwithstanding the Panel's future recommendations on a potential Ship-source Hazardous and Noxious Substances (HNS) Incident Preparedness and Response Regime in Canada, for the purposes of gathering views and information for the review, the Panel is considering vegetable and animal oils, liquefied natural gas (LNG) and liquefied petroleum gas (LPG), among many other substances, as part of HNS.

References to 'regime' in this document refer to a potential future Ship-source HNS Incident Preparedness and Response Regime, unless indicated otherwise.

Coverage

1. How should HNS be defined for the purposes of a Canadian ship-source incident preparedness and response regime?
2. What types of substances should be included in a Canadian regime for HNS? What is the rationale for their inclusion? What criteria should be used to inform the future inclusion of additional substances?

A regime should be established that looks at the issue of marine pollution from spills holistically versus a sector-by-sector or substance approach that may be emerging at this time. As discussed in some subsequent responses we need to ensure that all types of ship-source spills in the marine environment are being addressed in a consistent and efficient manner. The province is concerned that even with the establishment of an HNS regime (and the existing oil regime) that other types of incidents such as an incident involving a container ship, or non-HNS bulk carrier are not being addressed. Recent incidents such as the MSC Napoli container ship in the UK, the Rena incident in New Zealand, and the Seladang Ayu in Alaska all demonstrate the need for a regime that addresses the preparedness and response, roles and responsibilities, and funding for spills of any materials that can cause pollution, impact public safety or result in socio-cultural and economic impacts.

3. Should a regime address HNS transported in bulk or in packaged form (e.g. containers), or one or the other? Why?

It is important that the regime addresses all HNS regardless of the specific means of containment used to transport them. The release of these materials in the marine environment must be addressed regardless of the specific means of containment to ensure public safety and protection of environment. For example, if a vessel incident resulted in the release of a significant volume of small containers into the sea it is critical that a response is undertaken to recover and remove these, even in the absence of them actually leaking at the time of the loss from the vessel, in order to prevent their subsequent spread and eventual release to the environment or turning up on public beaches where they would pose a public safety hazard.

Prevention

4. What measures are already undertaken, either by government or industry, to prevent ship-source HNS incidents?

5. What additional measures should be taken to reduce the risk of a ship-source HNS incident?

Tug escort and other additional safety measures required for oil tankers should be applied to those vessels which carry significant volumes of the most dangerous classes of HNS materials due to the higher risk they pose to public safety and the environment.

Existing Response Capabilities

6. What private-sector capability currently exists to respond to HNS incidents in the marine environment, including at HNS handling facilities, on board vessels that carry HNS, and with emergency response contractors?

In British Columbia there are certainly response contractors who can respond to HNS incidents, however, it is unclear to the province whether or not they have the additional training needed to perform this role in a marine or ship based setting and the additional logistical supports in place for these types of responses.

7. What public-sector capability, at all levels of government, currently exists to respond to or oversee the response to HNS incidents in the marine environment?

All of the province of British Columbia's Environmental Emergency Response Officers (EEROs) are initially certified at the hazmat technician level and equipped with various HNS sampling and monitoring equipment, as well as the required personal protective equipment (level A hazmat suits and self-contained breathing apparatus). After initial training all EEROs go on to complete hazmat specialist certification in the various modes of transport (i.e. rail, highway, intermodal, etc.). The province requires reporting of all actual or potential spills of hazardous materials and any other substance that if spilled would result in pollution as defined by the provincial Environmental Management Act regardless of source or location (i.e. includes the marine environment). The British Columbia Ministry of Environment (specifically the Environmental Emergency Program) is established in regulation as the provincial lead for all spills affecting the province regardless of source or location, and will appoint a provincial incident commander to manage significant incidents in Unified Command with the Responsible Party (i.e. the spiller), the lead federal agency, and local government and First Nations that are directly impacted by the incident. As the lead provincial agency the Ministry of Environment may call upon any other resources of the provincial government required for the response or management of the incident.

8. What response techniques exist for responding to various HNS incidents in the marine environment? Are all of them authorized under current legislation? If not, under what circumstances should they be authorized?

In an emergency setting the Provincial Incident commander or EERO is granted significant additional powers to implement any response technique necessary to mitigate the incident and protect public safety and the environment. Based on the myriad of jurisdictional (both between levels of government and across levels of government) issues at play in a spill incident it is critical that lead agencies enter into Unified Command to assess and evaluate the response tactics available, and that supporting agencies are engaged within the Incident Command structure to ensure their perspectives and concerns are addressed to ensure good decision making occurs. Decisions to implement a given response technique must also go through a Net Environment Benefit Assessment to determine if the response tactic will contribute positively to recovery versus causing further damage that would result in a longer recovery period than not implementing that particular tactic.

Preparedness and Response

9. What preparedness and response requirements should be incorporated into a new HNS regime?

Preparedness and response requirements should be consistent with the requirements for the oil spill response regime (please refer to the province's submission regarding Phase 1 for additional details).

Overall the requirements should be developed to ensure the following occurs:

- Effective and timely response to the incident (with the understanding that responder safety and environmental conditions may delay or prevent certain response actions) to all incidents regardless of who the Responsible Party is.
- First Nations and the public are provided with timely information that an incident (or imminent risk of a release) has occurred, and what the public health and environmental risks and impacts associated with the incident are.
- The Responsible Party (or a federal fund if the spiller is unable, unwilling or unidentified) is held responsible for the costs associated with remediation, environmental restoration, and loss of public use associated with their incident.

10. To whom should these requirements apply?

Requirements should apply equally to all spillers in regards to the requirements once a spill occurs. It may be suitable to set thresholds for some of the potential planning and preparedness requirements. An example would be the use of thresholds established for mandatory participation in the existing certified marine oil spill response contractors, and the ability to voluntarily hold membership or contract with them at the time of an incident.

11. Is the current reporting/record keeping of HNS cargo on vessels in Canada adequate to prepare for and respond to HNS incidents? What could be done to improve the quality and accessibility of the information?

The current reporting and record keeping of HNS cargo on vessels in Canada should be communicated clearly to the province and other key stakeholders to further assess this and provide a more substantive response. There is certainly a need to be more transparent with this information and ensure there is ready access to it by the province and other who would be potentially involved in the response.

12. Are there international best practices (ship-source or other) that should be considered when creating a national HNS incident preparedness and response regime?

A jurisdictional scan that identifies and assesses other HNS regimes around the world would be a critical component in the development of the Canadian regime. There are examples and best practices from the oil spill regimes around the world that would apply in the HNS context.

13. How do health and safety considerations for both responders and adjacent populations impact preparedness and response for HNS incidents?

Identifying the health and safety considerations for responders and adjacent populations is a critical step in determining what the preparedness and response requirements for HNS incidents needs to be. The province is very concerned that even in the existing oil spill regime this has not been fully addressed in the context that many of the oil products being transported and handled today may require the use of respirators or fully self-contained breathing apparatus to protect the health and safety of the responders. Important considerations such as this should not be left to address until the time of the incident as it could result in either unacceptable exposures or a significant delays in the response. Please see response to Q#11 on transparency.

14. What scientific advice and expertise is required during an HNS incident? Does this expertise currently exist, either in government or private industry? What expertise needs to be developed in Canada?

Significant scientific advice and expertise is required during an HNS incident to assess issues such as responder safety, public safety, environmental impacts and Net Environmental Benefit Assessment decisions regarding the tactics to employ in the response. This expertise exists to some extent within the BC Ministry of Environment's Environmental Emergency Program (and our Spill Incident Management Team members drawn from across provincial ministries), at Environment Canada, through services such as Canutech, within the response contractor / consulting community, and among the industries that produce or use these substances. There is certainly a need to shore up the existing provincial and federal government resources and identify additional tools, equipment and guidance to enhance the provision of timely and sound scientific advice.

15. How should response capacity for an HNS regime be developed? What factors should be considered?

Response capacity should be developed through industry preparedness requirements and industry funding for additional government resources (at both provincial and federal levels) whereby those that create or bring the risk fund the prevention, preparedness, response and recovery for the risks they bring.

Roles, Responsibilities and Legal Framework

16. Should a separate preparedness and response regime for HNS be created, or should the existing Ship-source Oil Spill Preparedness and Response Regime be expanded to include HNS? Why or why not?

No, the province does not believe that a separate HNS regime should be created. A more robust and expanded (as per our comments on Phase 1) Ship-source Oil Spill Preparedness and Response Regime should be expanded to handle HNS as well any other marine pollution incidents (example: an incident

similar to the MSC Napoli container ship incident that occurred in the English Channel in 2007). The province and federal government should also work together to explore opportunities for a merging or sharing of capabilities and capacities between the marine regime and the proposed provincially certified land based Preparedness and Response Organization (that would be responsible for both HNS and oil spills). The reason for this as follows:

- Efficiencies for industry in paying for a single organization versus a balkanization of marine spill preparedness and response regimes based on the type of material spilled in the incident and the resulting duplication for some items or services.
- Efficiencies for government in that they only need to certify and oversee a single organization versus multiple.
- A single stable organization will better serve the needs of First Nations, local governments, the province and other key stakeholders and create less confusion regarding roles and responsibilities.
- Many of the preparedness elements are needed regardless of the material spilled. This includes but is not limited to:
 - Logistical support such as crew boats and other air support, pre-determined Incident Command Post locations, waste handling, food, medical and housing requirements for the response, etc.
 - Geographic Response Plans
 - Responding to wildlife impacted by spills
 - Certain type of response equipment will be effective for both oil and HNS spills (example: oil spill boom may also be effective in recovery of certain types of HNS spills)
 - Aerial surveillance of spills
 - Human resource, administration, and finance sections of the certified response organization
 - Incident Management staff (i.e. Incident Command System trained personnel and associated resources)

17. Could Canada's Response Organizations (ROs) fulfill the role of responder to certain ship-source HNS incidents, as they currently do for ship-source oil spills?

Yes, as indicated in the previous response (question 16).

18. What factors would need to be considered in broadening the Response Organizations' mandate to include HNS?

The additional expertise, equipment, guidance, etc. that would be necessary in addition to the current resources, capabilities and capacity the existing RO's have.

19. If adopted, should the requirements for an HNS regime be integrated into current legislation, such as the *Canada Shipping Act, 2001* and the *Arctic Waters Pollution Prevention Act*, or should new legislation be created?

20. How should an HNS regime interact with the regulations for the transportation of dangerous goods in Canada?

There should be consistency wherever possible. A major concern of the province has been the sector-by-sector approach to hazardous materials spills at the federal level. The current federal approach of making the “operational” regulator of each sector the lead federal agency leads to inconsistencies and confusion for both industry and the public. The province has previously advocated for Environment Canada to be the lead federal agency for all spills regardless of industry or transportation sector (which is consistent with how the province of BC handles spills by assigning the lead provincial role to the Ministry of Environment) and the agencies such as Transport Canada, Coast Guard, National Energy Board, etc. act as supporting agencies when the spill originates from their sector. The rationale is as follows:

- Environment Canada is best qualified to address the impacts of spills on public safety and environment, determine the most appropriate response tactics to effectively mitigate the spill, and necessary remediation and restoration measures, based on their core mandate and their knowledge, training, and experience of their staff (example: Environment is best equipped to make decisions on euthanasia of impacted wildlife or use of chemical dispersants versus Canadian Coast Guard or Transport Canada officials).
- Existing lead agencies do not necessarily have the core mandate, knowledge, training and experience required to address the impacts and determine the most appropriate actions to mitigate environmental impacts and remediate and restore the environment. Duplicating these skill sets in each lead federal agency likely also results increased costs for the federal government and taxpayers.
- How spilled substances impact public safety and react in the environment is not related to the means of containment or mode of transport the spill originated from prior to entering the environment.
- Existing lead federal agencies should be supporting agencies and key participants within the incident command structure when a spill originates from their sector to address matters specific to the means of containment or mode of transport (example: Coast Guard and Transport Canada’s expertise lies in matters of shipping and navigation and thus they have a critical role in determining how to stabilize a vessel, controlling other vessel traffic in the spill zone, etc.)
- First Nations and the public have a higher level of trust in Environment Canada to address public safety and environmental issues resulting from spills over operational regulators whose mandates may create a real or perceived bias or conflict.

21. What role should the Canadian Coast Guard play in an HNS incident?

See above response (question 20). If Coast Guard is to provide the lead federal agency role in HNS incidents it is imperative that both they and Transport Canada participate in Unified Command and as needed in the incident command structure to ensure federal leadership and ensure appropriate communication and collaboration amongst all parties involved in the incident response and management.

22. What are the current roles and responsibilities of other levels of government (provincial and municipal) in this area? Are any of these governments considering new prevention, preparedness and response requirements that could be of benefit to a national regime?

The role of the province (and the Ministry of the Environment as the lead provincial agency for prevention, preparedness, response and recovery for all spills affecting the province) is described in the response to question #7 above.

The province also supports the principle of Unified Command that includes the participation of directly impacted local governments and First Nations in both Unified Command and throughout the incident command structure to ensure their interests are represented and their capabilities are engaged. First Nations and local governments have assets, experience and knowledge that may be critical to ensuring a timely and effective response. They are also often the most directly affected by the impacts and consequences of the spill. Examples include First Nation access to their lands and resources including fish, shellfish and culture sites that can be impacted by the spilled substance or the actions of responders; local government role in carrying out any required evacuations and providing reception centers and support to their residents that have been impacted by a spill; economic impacts to First Nations and local governments whose local businesses are impacted by the spill or response activities.

The province will soon be releasing a second Intentions Paper identifying options for the establishment of a world leading land-based preparedness and response regime (which includes impacts to the coastline regardless of the origin of the spill). One of the options being put forward is the establishment of a provincially certified preparedness and response organization for all types of hazardous materials. Additional information on this work is available on the Ministry of Environment's website. The province sees opportunities for collaboration in this regard to provide efficiencies for both government and industry and would be keen to explore this further with the federal government to develop regimes that address the needs of both levels of government.

23. What other parties (i.e., first response agencies, health agencies, marine services, etc) have a role in the preparedness for or response to ship-source HNS incidents? What role could they play?

Numerous agencies and organizations have a role to play in the preparedness and response to ship-source HNS incidents. Some examples are as follows:

- BC Ministry of Health, BC Ambulance Service, and regional health authorities – address health related impacts associated with the spill including the handling of injured vessel crew members, responders, or members of the public.
- Canadian Food Inspection Agency and Health Canada – addressing food safety and related issues for the public, First Nations, Fishers, Aquaculture and shellfish operators, etc.
- Salvage, tugboat and marine fire-fighting services – to address issues relating to the vessel stabilization, recovery, and fire suppression.
- Environment Canada, Department of Fisheries and Ocean, and the Canadian Wildlife Service – scientific advice relating to impacts, remediation, restoration, impacted marine mammals and migratory birds, fisheries closures, etc.
- Local government fire departments, police and public works – addressing spill impacts to communities, providing security or keeping public out of away from danger, evacuations, etc.
- Emergency Management BC and Public Safety Canada – providing support and coordinating information to impacted and potentially impacted communities, assisting with convergent volunteer handling.

24. Should responders be provided immunity from liability in the context of their response, as they are in the Ship-source Oil Spill Preparedness and Response Regime under the *Canada Shipping Act, 2001*?

Yes.

25. How could a future HNS incident preparedness and response regime be financed or funded?

Should be funded by those industries and sectors who bring the risk (both preparedness and a response and recovery contingency fund for those cases where the Responsible Party is unable, unwilling or unidentified). Response actions should be fully covered by the spiller with the establishment of a fund to ensure immediate response actions (i.e. avoid any response delays) and protect taxpayers in the event the Responsible Party is unable, unwilling or unidentified.

26. How should an HNS regime be overseen and enforced?

Should be overseen and enforced by the lead federal agencies. True “regional” advisory committees should be established and funded by industry for each area of the BC coast to ensure local participation and input. A higher level west coast (area) advisory committee should also be established and funded by industry that includes representation from federal and provincial lead agencies, First Nations, Union of BC Municipalities, industry, the certified response organization and other key stakeholders.

Research and Development

27. How should priorities for HNS-related research and development be established?

A set amount of annual industry funding should be provided for research purposes and the use of these monies should be determined by the area advisory committee outlined in response to question #26 above.

28. Who should be responsible for funding and conducting this research?

Industry that brings the risk should be responsible for providing this funding. Research should be conducted by government agencies, universities and other similar type institutions to avoid or reduce the perception of bias (i.e. industry or related organizations should not conduct or determine in isolation who will carry out the research). Perhaps there could be annual call for research projects and the area advisory committee could review and select the “winning” proposals. The certified response organization could potentially handle the administrative aspects of the providing the funding and administering the contracts, or alternately government (if perception of bias is an issue).