

Tanker Safety Panel Secretariat  
330 Sparks Street, Place de Ville Tower C (AAM)  
Ottawa, ON K1A 0N5

March 28, 2014

To Whom It May Concern,

**Re: Strategic Review of Canada's Hazardous and Noxious Substances – Phase II**

We understand that the federal government is requesting feedback from all three levels of government across Canada to assist in the development of a regime for Hazardous Noxious Substances (HNS) – including LNG, LPG, animal and plant oils. The District only very recently became aware of that the Phase II had been changed to include a consultation on HNS indirectly and we respectfully suggest that many local governments may not be aware of the consultation that is currently underway. We did not receive any information directly to advise the District that the Phase II had been changed to include HNS. Environmental staff have briefly reviewed the questions provided by the Tanker Safety Expert Panel and provided comments where possible due to time constraints.

As suggested in Phase 1, targeted engagement sessions for local governments would provide an improved opportunity for information sharing. Staff from environment and emergency planning backgrounds from several local governments in Metro Vancouver shared information informally to discuss the questions and generate some discussion. Unfortunately, the short timeline limited discussion and our ability to provide meaningful comments. It would be helpful to invite local governments in the Metro Vancouver region to future workshops to present background information on the IMO HNS protocol and the questions posed in Phase II before closing the input process. We recognize that it is the primary responsibility of the Federal government to provide a coordinated response for HNS from Ship-Source spills but all three levels of government benefit from improved communication and sharing of information.

Please contact me at 604.990.2445 if you require additional information.

Yours sincerely,

Julie Pavey, R.P.Bio.

Section Manager, Environmental Sustainability

**1. How should HNS be defined for the purposes of a Canadian ship-source incident preparedness and response regime?**

There are different options for defining HNS including the existing definition for HNS on page 4 of IMO protocol which is general in nature but will be familiar to vessel operators. There also other definitions as used in the federal Transportation of Dangerous Goods (TDG) and the provincial definition of hazardous waste.

Our staff discussion concluded that the various definitions should be compared against each other and should include any substance that can cause people to harm to the public and environment including air pollutants and explosives/emissions. There should be clear understanding for how products such as dilbit fit either the hydrocarbon or HNS regulatory frameworks.

**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?**

We only had time to discuss one substance, diluted bitumen, and felt that it should be reviewed to see if meets the definition. In general, feedback is to keep the definition broad enough to include ecosystem and human health danger. In order to provide meaningful comment, there should be a stakeholder engagement by the federal government which provides some background to review examples of substances – i.e. Is there additional information that was used in the federal review of the IMO protocol?

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

The HNS regime that is developed should address both bulk and packaged form (containers). If a substance has the potential to cause harm and is regulated, the storage mechanism is not a key factor if the material can be released directly or indirectly to the receiving environment. The evaluation should include a review of pathways of exposure to determine if the containers limit the exposure which should be taken into account in the regime. There may be an opportunity to reduce risk by improvements to packaging which should be explored.

Prevention

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

We are not aware of any required measures by government to prevent ship-source HNS incidents other than information noted below by the Coast Guard in terms of guiding principles but would anticipate that responsible industry parties have already put preventive measures in place, we are not aware of the specifics. We understand that the Coast Guard

has seven guiding principles that are or could be applied to responses to chemical spills. Ships are required to file Pollution Incident Emergency Plans and have a copy of this on board. We understand that Canada has not signed the IMO agreement on HNS protocol and do not have an understanding of the rationale that went into the decision not to sign initially i.e. were there specific concerns with the IMO HNS protocol that concerned Canada.

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

We understand that the Coast Guard has seven guiding principles that apply to responses to chemical spills. Ships are required to file Pollution Incident Emergency Plans and have a copy of this on board.

The development of a clearly understood HNS regime should reduce the risk of a ship-source HNS incident and there would be policy to set clear direction on releases from vessels. In the brief review of some reference material - [england.nhs.uk](http://england.nhs.uk) there is a requirement for an initial alert to outside agencies and activation tests.

Concerns raised during the staff discussion include:

- Is there is adequate liability coverage to address any required recovery costs as well as response.
- Risk assessment methods – need to ensure that it looks at both probability and potential consequences. Metro Vancouver is a busy port and also surrounded by densely populated cities, this should be part of the potential consequence.
- Ensure that the risk assessment looks at current and future volumes and cumulative effects (economic, environmental, private property, public space, health).

Existing Response:

**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?**

It is our understanding that WCMRC currently only responds to oil spills and they have responded to canola but are not a hazardous materials responder. There is some private-sector capability for dealing with HNS incidents in a land-based incident scenario, local governments have experience along with the province on initial response to haz mat incidents but the clean-up and disposal is normally done with emergency response contractors, we are not aware of any with marine based expertise.

**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?**

Coast Guard handles chemical spills but we are concerned about local capacity for the Coast Guard as it currently exists. There has been a reduction in DFO and Environment Canada capacity in the BC Lower Mainland region, we are not sure who the local contacts would be or how this would be handled in the new operating regime. A timely local response would help to reduce the impacts from a HNS incident but existing public-sector capacity is limited and at the provincial level spill calls are often handled by staff that are working outside the region. Local government does not have resources or knowledge to respond to HNS incidents in the marine environment beyond assisting with the public interface and our roles as defined in our existing Emergency Plans.

**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?**

We are not aware of all the response techniques that are currently used for responding to various HNS incidents in the marine environment or whether they are authorized. It would be prudent to develop a framework of response techniques and to develop a list of the circumstances that they can be used under with a goal of to reduce the overall environmental impact. The precautionary principle should be used in the absence of adequate data for local conditions and gaps in response techniques should be identified for research priorities.

Preparedness:

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

- There should be knowledge of the materials that are shipped in and out of Port Metro Vancouver and a format for sharing information on a need to know basis – there was a suggestion of a database that can be used to inform preparedness and response requirements.
- Need more transparency and more incident and tracking of near misses. More ability to be able to view what is on each vessel (ship and rail) in real time. Port Metro should know what is on each vessel and report to local authorities and fire departments. First responders need access to real time information.
- There should be a requirement for the development of spill response protocols for classes of substances with modifiers as required; this can be combined with the geographic response plan requirements.
- There should be requirements for community outreach for local government notification and coordinated annual NHS spill exercises with first responder and coordinated EOC

exercises. Shadow website/public info and social media in place before an incident that can be used on short notice

- Pre-staged containment supplies – see Geographical Response Plan approaches.
- Disposal strategy for recovered product
- There is a need to develop geographical response plans (GRP) that take into consideration local conditions and significantly reduce the time needed to make decisions during the initial response. A GRP includes representatives from various levels of government, resource specialists, and industry working together to identify spill risks and sensitive resources. There is existing information on best practices available from others such as the US EPA.
- Measure developed to monitor air quality, protect recreational boaters in vicinity, police barriers for public access points, modelling spill.
- Mandatory spill response times – see oil spill requirements as a template but response times should be correlated to risk levels – i.e. evacuations need to happen on a very short timeline if there is a risk to public safety.
- Marine Spills Contingency Plan – on line.
- Training exercises example - US CG does this quarterly with BP (oil companies) and local stakeholders – includes mass causality scenarios and spill response.
- Briefing schedule. Land based evacuation and containment, basic emergency response and notification and info sharing.
- Aligned priorities. WCMRC – response role – in place but does not align with BCERM.
- Review and improvements to decision making processes, we understand that currently need ship owner's permission before can release information about what spill is to public. See the Netherlands and other jurisdictions for best practices information and consult with local governments for HNS response.

#### **10. To whom should these requirements apply?**

There should be a table of each requirement and who is responsible for what.

#### **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?**

No, local governments and emergency responders are not privy to that information and are not in a position to understand the risks to the local community. There should be tracking of near misses to improve preparedness and there should be limited access for first responders to a database that can be viewed in real time. This was identified to be similar to local government concerns related to hazardous materials transported by rail, the concerns would

be similar and learning of the products shipped after the fact is not adequate for emergency planning purposes.

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

We understand that there are existing best practices available in the United Kingdom (UK), Norway, Netherlands and Australia which should be reviewed for their applicability. It would be helpful to provide a backgrounder with links to existing best practices which would allow local governments to provide better comment on how the best practices could be applied in Canada.

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

There is limited information available for adjacent populations for the preparedness and response for HNS incidents - How to prepare if we don't know what is coming. Health and safety considerations need to take into account shoreline emergency response. Local governments all have emergency plans; all protect first responders as first priority.

Other considerations include evacuation perimeters, air quality, what PPE responders need, i.e. special gear, Standard Operating Procedure (SOP), place of refuge, how will information be communication to responders and adjacent populations. It is suggested that there be consultation with provincial health authorities if not already underway.

**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?**

Need Marine version of land based Spill Response SOP, should be included in the development of Geographic Response Plans.

- Each area individually modelled
- DFO/Enbridge modelling oil spills, start at Kitimat and come south to Burrard Inlet.
- Want to know materials, spread estimates and impacts (air and water), when will it hit each area? Pre warning.
- Clean up best practices and expert on each material, shoreline specialists, etc.
- Pre-incident baseline data
- Impacts after the fact
- Interaction between materials if there are multiple materials that were spilled
- Disposal approach

There is a need to develop further expertise in both government and private industry in Canada.

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

See #9 response. Factors to include review of best practices, transparency, and info shared to all affected parties – agencies, priorities, resource allocation and ongoing training. There should be clear information on roles and responsibilities and where possible consistency between rail and marine protocols and responsibilities.

Roles and Responsibilities

**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?**

Initial discussion was that it might be easier to track one regime than two but ultimately it depends on definition of HNS and which party is responding to each material/substance. Any preparedness systems that developed must be integrated with response system. There is also the challenge that first responders are not always aware of the spilled substance and there is a need at least for some overlapping coverage of the regimes or common elements. Separate regime within one overarching systems – covers both oil and HNS. Comment on establishing a targeted consultation process to identify gaps.

**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? No, but could they?**

We are not familiar with all ROs; locally in BC there are contracts in place for oil spill but not on HNS with WCMRC. If there is adequate capacity through the creation of new resources and training, there may be efficiencies if responders should cover oil and HNS and HazMat and would allow a single point contract for local government/first responders. There should be local BC representation involved with decision making, regional oversight for ROs.

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

- Training
- Ability to deal with a broad range of products and potential clean up requirements
- Consideration of specialized sub-contractors as identified

**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?**

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

At a brief look, it is suggested that the requirements might be easier to understand if they are in a stand alone new legislation, they could be created as new regulations that are referenced in the Canada Shipping Act. The HNS regime should align with language and intent of transportation of dangerous goods which would be easier for first responders.

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

It would be helpful to understand what other federal agencies such as Environment Canada could assist with. There is a clear role for the Coast Guard but concerns that they may not have adequate local staff resources to address HNS incidents.

**21. 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 provincial government in BC is currently working on a new land based spill response model with new prevention, preparedness and response requirements that could be of benefit to a national regime. Local government staff met with provincial representatives in March 2014 and found the discussion to be mutually beneficial.

Local governments have a mandate for emergency response; and are often working in coordination with other parties (i.e. local government may establish an Emergency Operations Centre EOC that coordinates with the province). The District has a role in hazard risk and vulnerability for natural hazards and has risk tolerance criteria that have been approved and are used to guide work including a chemical hazard discussion with a local industry. The North Shore municipalities are working on a land based spill response plan that includes the specification of response levels that are correlated with first responder (Fire Dept.) response levels that may be of benefit to a national regime.

**22. 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?**

Consideration of preparedness and response roles is often limited to the roles of groups responding to clean up spills on the water surface. In order to protect public and environmental health and safety, the following parties at a minimum should all be engaged in preparedness and response activities in the marine environment:

- First Nations
- Local Governments
- Local First Responders
- Local Health Authorities
- Provincial bodies and ministries including: Health, Emergency Management, Environment, Transportation
- Federal bodies and ministries including but not limited to: Environment Canada, Department of Fisheries and Oceans, Transport Canada, Public Safety Canada, Canadian Coast Guard, Parks Canada, Canadian Border Services Agency
- Response Organizations (WCMRC, ECMRC)
- Private Sector Hazmat Teams
- Terminal Owners and Operators
- Port Authorities
- Recreational boaters
- Conservation Authorities and Environmental Organizations
- Pacific Pilotage Authority
- Tug Operators
- Residents and businesses in high-risk zones
- International partners, including the US Coast Guard, Environmental Protection Agency, and State Departments of Ecology and Environment

Currently there is virtually no response capacity to deal with marine based HNS incidents, including fires, and explosions on the water – all the above groups must be involved in preparedness and response, but all must be adequately resourced and trained to do so. There is a major gap where Response Organizations should exist to respond specifically to marine based HNS incidents. There is also limited acknowledgement of the impact of HNS incidents on local governments, and responders, or of their legislated responsibility to protect public health and safety. Local governments and responders cannot carry out their legislated

responsibilities without being fully integrated into preparedness and response planning, training, and exercising.

**What role could they play?**

**\*\*\*this is from the perspective of local government only and in terms of the role they do and would play in emergency preparedness, response and recovery in areas that we are the lead for i.e. spill on a roadway. Local government are not currently funded, resourced or directly responsible for marine HNS incidents and any changes to current roles would involve a policy discussion with senior management and council before comments can be provided.**

**\*\*Local Government and Responders have a critical role to play in Preparedness, Response, and Recovery including:**

**Preparedness:**

- Hazard, Risk and Vulnerability Assessment as legislated
- Participant in training and exercising
- risk assessment including impacts on land
- environmental remediation planning
- public communication and education (evacuation and shelter in place instructions)
- response planning including approval of response techniques,
- assessment of impact of response on local communities
- PPE for first responders based on risk
- Notified of changes or proposed changes to transportation regulations
- Notified of changes to risk and hazard scape
- Must have access to information about the transport of hazardous materials
- Local knowledge relevant to preparedness, response and recovery (baseline data for monitoring impacts, etc.)
- Mitigation of human health risks

**Response:**

- Role in Unified Command
- Implementing emergency plans including public notification, evacuation, shelter-in-place, emergency social services, perimeter control, traffic management, etc.
- Implementing business continuity plans in situations where local government operations have been impacted
- Potential for local government equipment to be utilized in response
- Deployment of hazmat teams
- Declaration of local state of emergency if required
- Coordination of first responders and local stakeholders and partners within jurisdiction

- Coordination with local hospitals regarding signs, symptoms, and treatment
- Activation of local EOC if required
- Oversight of shoreline clean-up
- Protection of traditional territory and cultural values
- Provision of local knowledge related to human health, ecosystem management, environmental sensitivities

**Recovery:**

- Business recovery planning
- Land use planning
- Enforcement of perimeters to protect human health
- Monitoring of long-term environmental impacts
- Oversight and approval of local environmental remediation

**23. 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*?**

No comment.

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

There should be a funding model that requires fees by potential spillers that are used to pay for preparedness i.e. purchase of spill response equipment, regular training of responders. The regime should also require marine spill insurance – liability requirement and can help pay for response and recovery, this should be looked at following a similar approach to the Phase 1 review for oil spills with a large contingency fund that can address all credible spill scenarios and have backing from the federal government for a catastrophic scenario which can then follow cost recovery by raising fees for the industry (polluter pays).

**25. How should an HNS regime be overseen and enforced?**

The HNS regime should be overseen and enforced by a federal authority with appropriate resources and staff capacity to enforce.

**Research and Development**

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

The priorities should be established in consultation with stakeholders and include consultation, gap analysis after review of existing data, dedicated funding stream that provides funding for multi-year periods, include an annual workshop and report on the risk analysis. There should be a strategic five year plan based on risk level of current and

proposed substances. The priorities should include a screening of new products and identification of research needs.

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

There should be funding of this research from fees associated with HNS products and the federal government. The research should be independent, academically focused, include peer review and be transparently shared with others including stakeholders.