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Canada's Ship-Source Hazardous and Noxious (HNS) Incident Preparedness and Response Regime

DISCUSSION PAPER



MARINE SAFETY DIRECTORATE

TRANSPORT CANADA

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Canada

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1.0 INTRODUCTION

In Canada, between 2001 and 2010, there were at least 98 chemical spills from vessels. While most of these were small spills, the volume of Hazardous and Noxious Substances (or “HNS”) carried by sea-going vessels, particularly in our international trade, highlights the potential for a chemical spill or other form of HNS incident— fires, explosions, loss of containers carrying HNS products—in Canadian waters. The 2010 audit report, *Oil Spills from Ships*, of the Commissioner of the Environment and Sustainable Development (CESD) noted the lack of a national HNS preparedness and response regime. Transport Canada’s Marine Safety Directorate (Environmental Response Systems) has therefore been mandated to lead the Department’s efforts to develop such a national regime.

Transport Canada has prepared this Discussion Paper to guide a public process of exploration, discussion and decision making on the creation of a national regime of preparedness and response for marine incidents involving HNS. As a starting point for this process, the Paper provides an outline of a national HNS incident preparedness and response regime for the marine sector. Within this proposed policy and program framework, many aspects remain open for discussion and refinement. There are numerous elements—of program design, delivery and funding—on which the department needs the views of industry stakeholders and experts in marine transportation of chemicals and other HNS.

For the purposes of this Paper, Hazardous and Noxious Substances are defined as follows:

Hazardous and noxious substance means any substance other than oil which, if introduced into the marine environment is likely to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.¹

The Discussion Paper assumes a moderate level of knowledge regarding the transport of HNS, governance and regulation in Canada, and emergency preparedness and response protocols and regimes. Readers who may wish to enhance or refresh their knowledge of these subjects are encouraged to read the Background Paper that is the companion to this document.

2.0 MOVING FORWARD: The process for turning concepts into reality

This Discussion Paper proposes a high-level national framework of policy principles and program elements for a national HNS incident preparedness and response regime in Canada. Within this high-level framework, many program details will require considerable public discussion. The upcoming process of engagement with key stakeholders, experts and partners in incident preparedness and response will help Transport Canada and its partners to work through these program details.

¹ 2000 Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, IMO, London, 2002.

Questions for discussion are embedded and listed at the end. Interested individuals and groups are welcome to raise other concerns or make recommendations on any aspect of a national HNS regime in the general comments section at the end of this document.

Several other streams of analysis and policy development will proceed alongside this process of public engagement. Before any program details can be finalized, Transport Canada needs to expand its current base of information on the movement of Hazardous and Noxious Substances through Canadian waters and Canadian ports. Section 2.4 lays out some longer-term options for meeting those information needs. Transport Canada will also explore some short-term strategies for enhancing its understanding of HNS shipments and the risk they represent.

Alongside the process for public engagement, Transport Canada will also pursue discussions with other federal partners and with other governments and local authorities on the role that each could play in a national preparedness and response regime. In time, the various parties may want to conclude memoranda of understanding on respective roles and responsibilities, including formal arrangements for collaboration on the management of HNS incidents.

A number of the actions proposed may require legislative change or the enactment of new regulations. Prior to any action in these areas, Transport Canada will seek legal advice—for example, to confirm that current legal authorities provide an adequate basis for these new regulatory requirements. Any new regulatory proposals, including any new financial requirements imposed by regulation, would likely require a separate consultation process.

To introduce the HNS initiative and discuss options for a national regime with a cross-section of stakeholders, Transport Canada is planning a national process of public engagement, beginning in Fall 2011:

The **Canadian Marine Advisory Council (CMAC)** is Transport Canada's national consultative body for marine matters. Meetings are normally held twice a year in the spring and fall. Members include representatives of individuals and parties having a recognized interest in boating and shipping matters. As part of a national CMAC session, under the auspices of the Standing Committee on the Environment, the HNS Discussion Paper will be presented to the newly formed *Ad hoc* Working Group on Environmental Response.

The HNS Discussion Paper will also be presented at **Regional CMAC** meetings in each region. The Regional CMAC meetings provide opportunities for local interests to raise maritime issues and concerns that are specific to their part of Canada.

A small number of **targeted stakeholders meetings** may be organized in regional centres across the country. During these sessions, participants and program representatives will be encouraged to:

- Provide an overview of the roles and responsibilities of their organization as well as their current involvement (if any) in preparedness for and response to chemical/HNS incidents;
- Present their position and expected level of involvement (if any) as part of an HNS regime;
- Inform the departmental representatives of the anticipated impacts such a regime would have on their day-to-day operations;
- Comment on the particulars of the HNS Discussion Paper; and
- Raise other suggestions and concerns, and make recommendations for action.

3.0 DESIGNING A NATIONAL HNS REGIME: What elements could and should a national HNS regime comprise?

In the mid-1990s, in response to recommendations of the Brander-Smith Report, the Canadian Coast Guard (CCG) initiated the development of a Marine Chemical Emergency Response System for HNS spills in Canadian waters. In late 1998, industry representatives from Transport Canada's Pacific Region and CCG formed a joint working group to design a marine emergency response system, based on industry capacity, for the Pacific region. The West Coast Marine Chemical Emergency Response working group included marine carriers, shippers, chemical producers, port authorities, provincial and municipal governments, and federal entities such as Environment Canada, as well as emergency responders such as fire departments. The goal of this working group was to develop a marine emergency response system specific to the West Coast, but also one that could be used as a basis for building a national regime.

Both of these processes concluded without the formalization of a national preparedness and response system for chemical incidents. Yet both yielded many practical insights that are still applicable today. In this same period, CCG commissioned GB Acres International to undertake a detailed study of needs and options, and develop the elements of a national spill response regime. This study is another valuable source of ideas.

3.1 Program Principles

One output of CCG's policy and program development was the adoption of program principles to underpin a national marine chemical emergency system. Transport Canada has updated those principles, adjusting them to take account of changes in the operating context (such as the development of new international conventions) and the slightly narrower scope of the CCG exercise, which focused exclusively on incident response. As possible principles to guide the development of a national preparedness and response regime, Transport Canada proposes:

1. *Risk Management: Transport Canada will apply a risk management approach:*
 - *to the design of a national system of incident preparedness and response,*
 - *in determining the level and distribution of resources within that system, and*
 - *when creating new regulatory duties.*

2. *Affordability: Risk management will be used to hold the cost of the national system to the minimum level consistent with safeguarding the public interest.*
3. *Integration: Wherever feasible, new arrangements for incident preparedness and response will build on and be integrated with existing programs, processes, institutional arrangements and regulatory frameworks, both domestic and international.*
4. *Harmonization: A national system will respect the jurisdiction of other governments and public authorities and take a collaborative approach to program delivery, while clearly articulating respective roles and responsibilities.*
5. *Public Engagement: The manufacturers, importers, owners, carriers and handlers of hazardous and noxious substances will directly participate in and support the system operations, including through the provision of technical expertise.*
6. *Custodial Responsibility: The person having charge of the hazardous or noxious substance will have the primary responsibility for incident prevention and preparedness, and will directly participate in responding to any incident for which they are responsible.*
7. *Shared Financial Responsibility: The persons having charge of hazardous and noxious substances will share in the cost of maintaining and operating the preparedness and response system, including clean-up and restoration.*

3.2 Overview of program elements

Program elements needed for a comprehensive national regime include:

Data needs:

- Historical information on HNS shipments (as a program design tool; as a tool for assessing risks and assigning resources)
- “Real or near-real time” information on HNS shipments (for predicting risk and to support operation of the response system)
- Incident reporting (for response and enforcement; as a planning tool)

Knowledge development and dissemination:

- HNS science
- Technical knowledge (for prevention, preparedness and response: e.g. standards and preventive techniques; HNS spill containment and remediation)
- Training and knowledge-sharing (including public awareness)

Response capacity:

- Within the federal government (human resources, vessels, infrastructure)
- External to the federal government

Operational framework:

- Designated national agency
- National statement of roles and responsibilities
- National Contingency Plan

- Subordinate operational documents: regional and area sub-plans; response procedures; codes and other operational guidance

Regulatory framework:

- Rules, codes and other prevention tools (e.g. vessel construction and equipment; loading, unloading, handling and stowing of HNS; marking and packaging)
- Regulations to implement requirements for preparedness and response (including the powers of certification, inspection and enforcement)
- Legal frameworks for cost-sharing or cost recovery

Coordination mechanisms:

- Between Transport Canada and CCG
- With other federal departments and agencies, e.g. port authorities
- With provinces, municipalities and first responders
- With producers, exporters and importers, vessel owners and technical experts

Program administrative capacity within the national agency:

- For policy and program development
- For program administration and operations (including certification, inspection, enforcement, monitoring and reporting)
- For program coordination across federal bodies and between governments

Transport Canada, as the policy and program leader for HNS transported by ship, has already made commitments to Parliament and the public to lead the design and implementation of a national incident preparedness and response regime. To meet these commitments, multiple regulatory agencies, service providers, local and provincial governments and stakeholder groups must be engaged.

There are gaps to be filled in scientific and technical expertise and in the institutional capacity for comprehensive incident response, both inside and outside government. Equally important, there is a lack of detailed information about HNS movements in Canadian waters and the nature and scale of the risks to human health and safety and the environment. If wise decisions are to be made respecting the allocation of scarce resources, using a risk-management approach, that information gap must be closed.

Even in the absence of definitive information to support the actual implementation of a national regime, there can be an informed discussion about key program elements—for example, the appropriate mix of public and private delivery. Agreement can be reached on the general architecture of a national regime and the priority areas for government action.

Transport Canada has identified options for moving forward with *three* key elements of a national preparedness and response regime—*response capacity*, *information needs* and the *regulatory framework*. These are discussed in detail in the sections that follow. One major design decision concerns responsibility for incident response. The choice is between an entirely public regime—which could be a minimal expansion of the status quo *or* a fully funded model—

and a mixed public-private model of service delivery. The two options (with sub-options) are outlined below.

3.3 Response capacity

The Canadian Coast Guard's Emergency Response Plan for marine pollution, in its *Marine Spills Contingency Plan – National Chapter 2011*, is the governing program-policy and operational statement for marine pollution response. It clearly assigns to polluters the onus of responding to marine pollution incidents. It remains the cornerstone of CCG's approach to HNS incident response. Yet the Program's primary focus on oil spill response means that CCG's capacity to address incidents involving chemicals and other dangerous materials is limited.

Transport Canada has identified two options for addressing the evident gaps in response capacity at the federal level. The first is an entirely public model of service delivery; the second is a mixed public-private model. **These are conceptual models only, outlined here strictly to provide a basis for discussion with stakeholders and partners of Transport Canada. They have not been approved or endorsed by senior management of Transport Canada and the Canadian Coast Guard.** Accordingly, they should not be construed as representing, individually or collectively, the program plans of either organization.

Public model (Sub-options: *Improved status quo*; *Fully funded model*)

Under this model, Transport Canada remains the lead agency for managing the overall HNS regime within the federal government. CCG remains the lead response agency for marine pollution incidents. Polluters would still have the prime responsibility for incident prevention and response. CCG would take a direct role where the polluter is unknown, unwilling or unable to take charge of the incident. The government would have the power to retain outside experts and hire contractors for incident response but the response program would be managed in-house.

CCG's existing co-operation arrangements with federal entities and other authorities may need to be reviewed, in light of the new focus on HNS incidents. The composition and operations of the Regional Environmental Emergency Teams may also require review, to ensure they are equipped to support HNS marine incident response.

Improved status quo: If no new resources were available to support the response program, the model could be implemented as an "improved status quo"—a conscientious effort to remedy the possibly *ad hoc* character of incident response, by articulating roles and closing gaps in incident preparedness.

Under this scenario, efforts could be made to link up existing knowledge and expertise within and across governments, and with groups such as the chemical industry. Modest investments could be made in training CCG personnel to deal with HNS incidents and the current program of simulation exercises could be expanded. There could be investments in relatively low-cost measures such as developing response standards and procedures and monitoring of HNS movements.

There could be clarification of roles and responsibilities, and improvements in coordination with counterparts in other governments and agencies, such as local hazardous materials (HazMat) teams and response personnel in major ports (e.g. the Port of Montreal). There could also be some tightening of regulations for prevention. But there would be little increase in actual response capacity.

Fully funded model: Alternatively, one could choose to invest more heavily in equipping CCG as a primary HNS responder. CCG would be responsible for developing—following a thorough analysis of HNS traffic trends and the areas of greatest risk of HNS incidents—a level of supplementary response capacity comparable to that now provided by oil spill response organizations (ROs) for oil pollution incidents. This capacity need not be entirely supplied in house: CCG could conceivably follow the UK model of establishing continuing arrangements with local commercial providers, including payment for being on “stand-by”. The costs—for increased staffing, for equipment and training, and for program operations—could be substantial.

Asymmetry with the existing oil spill response regime would give rise to concerns both inside and outside government. For one thing, vessel owners and the owners of oil facilities have shouldered considerable financial responsibility for oil spill preparedness and response. It seems unrealistic—as well as inconsistent with the well-established principle that “the polluter should pay”—to expect that comparable costs for the HNS program would be paid from general tax revenues. Therefore, adoption of this model would entail finding some means of recovering program costs from the program’s beneficiaries.

Funding options for the various models for a response regime are discussed in Section 4.

Public-private model

Transport Canada would be responsible for overall management of the regime, including:

- Setting the program framework and developing program policy;
- Setting the regulatory framework;
- Developing response standards and other operational guidance; and
- Developing high-level arrangements with other governments and agencies.

Transport Canada could assign large parts of the response component to private industry, under CCG oversight. In essence, this would apply the current Canadian model of oil spill response to HNS incidents.

This model would secure all the advantages of the public model outlined above (in terms of federal leadership in clarifying roles and responsibilities; developing standards and operational procedures; and negotiating co-operative arrangements with provinces, ports, local first responders and industry groups). It would also enlarge response capacity and give it a formal structure, with commensurate increases in predictability and accountability.

As with marine oil spill preparedness and response, the private sector—vessel owners, owners of chemical handling facilities, chemical producers and importers, or some combination of the above—would be required to plan for and financially support a system, delivered by private contractors, for HNS incident response. CCG might sometimes be directly involved in the operational portion of an emergency response, as may also happen with oil spills (e.g. when there is a “mystery” oil pollution incident). However, usually CCG’s role would be to monitor the situation and make sure that responders are following established procedures and federal regulations.

Private industry (emergency response contractors, specialized response teams for chemical plants) has the expertise to respond to most chemical emergencies on land—including road and railway incidents. Many response contractors are already retained as Emergency Response Assistance Plan (ERAP) contractors, under the *Transportation of Dangerous Goods Act* regime. Marine emergency response would require developing new capacity and new arrangements. There are currently few individual companies in Canada that have the expertise and the physical capacity to respond to a major HNS incident on-board a vessel located at berth or at sea. Yet if a market for these services exists, private-sector providers are likely to respond with the necessary commitment of capital and human resources.

To achieve economies of scale and to provide the necessary level of local coordination, some new delivery structure – linking private-sector contractors to sources of expertise within the chemical industry and to local and federal government agencies – would likely be required. The four ROs that Transport Canada has certified for oil spill response have a mature institutional structure and established administrative capacity. They also have access to spill response equipment that may, in some cases, be adaptable to HNS incident response. It is possible that some ROs may be interested in expanding their operations to cover HNS incident preparedness and response.

Deciding how broadly to apply the requirement for private-sector response services would require detailed information on HNS traffic trends and identification of the areas at greatest risk of HNS incidents. Some issues for future resolution—under any of the above options—are:

- Which materials and products to deem as “HNS” for these purposes? For example, should packaged goods be included or should the requirement be limited to shipments of materials in bulk? Should preparedness and response arrangements exclude low-impact products such as coal and wood-pulp, as the 2010 HNS Protocol has done with respect to liability and compensation for pollution incidents?
- Who should be required to have an arrangement for private-sector response services? Should it be the vessel-owner, the exporter/importer or some other person?
- What should be the threshold (e.g. quantity of HNS shipped, size of vessel) for requiring a response arrangement?
- What should the geographical component of the response program look like? Given the relatively low maritime traffic of chemical cargo in northern regions of Canada, and

the low likelihood of establishing local response capacity, should the area North of 60 degrees be included or not?

Using the existing national oil spill response regime framework as a template for an HNS regime implies a financial investment and a commitment from government, not just from the private sector. The Canadian Coast Guard, as lead federal agency for marine pollution response, would still require some investments in specialized equipment and staff training. There would be a need for incident simulation exercises and other preparedness activities. There would also be a requirement to review existing arrangements with regional authorities and first responders. Finally, Transport Canada would still have costs for developing and running a national system, apart from the costs of incident response.

3.4 Information needs (Data needs; Research and development)

Data needs: Detailed, up-to-date information on the type and quantity of HNS products moving through Canadian waters is key to effective incident preparedness and response. Enhanced information is needed, first, as a tool for the actual design of a national regime, particularly in assessing risks and assigning resources. Once the system is operational, access to real-time (or nearly real-time) information on HNS shipments from a centralized system would greatly enhance the prospects of a prompt and effective response, in the event of an incident. This would be especially important for incidents involving container ships, where hundreds of different chemicals can be present on a single vessel.

One option is to expand the requirements under the Canada Vessel Traffic Services Zone Regulations, which CCG administers. At present, all ships must declare any dangerous goods (listed by Class) or pollutants carried on board. This requirement could be expanded to require vessels to report on dangerous goods by their UN number (e.g., “UN1975”) and proper shipping name. The Canada Border Services Agency’s Advance Commercial Information (ACI) system also provides advance warning of all international cargo arrivals.

The challenge is to gather and collate the information from these various sources, using a centralized system, so as to provide planners and first responders with sufficient data for adequately assessing risks and responding to a marine incident.

Research and development: Compared to the large body of knowledge on oil spills, relatively little is known about the behaviour of spilled chemicals in the environment. Transport Canada will need to look at revitalizing research and development in the field of marine chemical spill preparedness and response. In-house marine response experience (CCG) could be paired with scientific expertise on marine pollution and the marine environment (Environment Canada, Fisheries and Oceans) health impacts of chemicals (Health Canada) and explosives (Natural Resources Canada). The Canadian chemical industry might choose to become an active partner in R&D projects. Potential areas of study include:

- fate and effect of single products and mixtures of products, when spilled in a variety of environments (fresh water, sea water, ice infested waters),
- response options, including remediation, and
- response technology, including personal protective equipment.

3.5 Regulatory framework

While Canada has a strong record of regulatory action in areas relevant to the transport of hazardous materials, there are some gaps. One priority area for regulatory action could be to apply the requirement for HNS emergency response plans to vessels, ports and facilities, as described in the OPRC-HNS Protocol. At present, only shipments of oil and Noxious Liquid Substances carried in bulk are subject to the *CSA 2001* emergency plan requirements. (The standards for these plans are established in an Appendix to MARPOL Annex II, which is specific to noxious liquid substances.)

Transport Canada would need to review the plan requirements in that Appendix and in MARPOL Annex II, to confirm that they are adequate to and suitable for incidents involving other materials, such as solids shipped in bulk. Since Canada is considering accession to the OPRC-HNS Protocol, care should also be taken to ensure that any new regulatory requirements also reflect guidance that may be developed within IMO on the implementation of the Protocol's emergency response plan requirement.

The requirement to carry a plan could be applied to Canadian vessels, both the international fleet and those engaged in purely domestic trade, as well as foreign-flagged vessels within Canadian waters. For Canadian vessels, prior ministerial approval of the plan would be required. Plans could specify:

- How and when to notify authorities of an incident or possible incident;
- Information to be included in that report;
- Operational procedures for addressing the pollution incident;
- Responsibilities of individual officers on board during an incident; and,
- Other measures required to limit environmental damage and risks to human life and health.

A second issue is whether and how to apply the emergency plan requirement to shipments of packaged or containerized goods. To date, the Transportation of Dangerous Goods program of Transport Canada has not applied its Emergency Response Assistance Plan (ERAP) requirement to packaged goods carried by ship.

In part, that is a reflection of the huge volume of diverse materials that may be carried on a single container vessel: it would be immensely complex to anticipate and provide in a single plan for all the possible chemical interactions between substances. On the other hand, dangerous packaged goods that travel by rail or road may already require an ERAP, so preparedness for marine incidents involving packaged goods should, in theory, also be feasible.

“We offer the following broad general guidelines for the type of information...which could be necessary...in the event of an HNS incident:”

- Name and identification number of the product UN Number Identification markings and/or type of packaging, etc.
- Emergency contact numbers
- Quantity on board or spilled
- Material Safety Data Sheet (MSDS)
- Bill of lading
- Stowage plans
- Name and contact details of the ship’s agent or shipper or manufacturer
- Container/package type, size and quantity, condition
- Details of the local environmental conditions (weather, temperature, sea conditions, wind speed and direction)
- Length, breadth and appearance of any slicks or plumes, including direction of movement and behaviour (i.e. floating, sinking, colour, odour)
- Any injuries or adverse effects to human health or the environment
- Proximity to sensitive resources and residential areas
- Notification of emergency services, local / national authorities....”

Source: International Association of Independent Tanker Owners
The OPRC-HNS Protocol: An Overview (2006)

Consideration could also be given to extending the emergency plan requirement to seaports and hazardous and noxious substances handling facilities under federal jurisdiction, as becoming a party to the Protocol would require. Any such arrangements would need to be developed co-operatively with the ports themselves and with local authorities, who are likely to be called on to provide first response.

Depending on decisions taken respecting the form of response regime to be put in place, there may also be a need to amend legislative authorities or to enact regulations—for example, for the certification of a new class of response organizations.

4.0 FINANCING A NATIONAL HNS REGIME: How should the public costs of this regime be defrayed?

It is a longstanding principle in Canadian environmental management that the polluter should pay for dealing with the consequences of a pollution incident. It is an extension of that principle that the person who creates the risk of pollution should contribute to the cost of managing that risk through public programs of incident preparedness.

Compulsory insurance is one means of ensuring that vessel owners will be able and willing to pay the costs associated with responding to a specific pollution incident, when the incident is of a scale that exceeds the response capacity of the vessel's officers and crew. The 2010 HNS Protocol contains provisions that could help in meeting this need, for shipments of bulk and packaged HNS.

The HNS Protocol adopted by IMO members in 2010 creates an international legal framework for civil liability and compensation for HNS incidents. It sets up an international regime of shared liability between shipowners and cargo owners or "receivers", for pollution incidents:

Shipowners are made strictly liable for incidents involving defined types of HNS and claimants have direct action against the shipowners' insurers.

Where damage is caused by HNS in bulk, the shipowner will normally be able to limit his financial liability to an amount between 10 million and 100 million Special Drawing Rights (SDR) of the International Monetary Fund (approximately \$15.7 million to \$157 million), depending on the gross tonnage of the ship. Where damage is caused by packaged HNS, the maximum liability for the shipowner is 115 million SDR (approximately \$180.5 million). Seagoing vessels that transport HNS—whether on a domestic or an international voyage—must carry insurance against HNS incidents, based on the tonnage of the ship.

The HNS Fund will provide an additional tier of compensation up to a maximum of 250 million SDR (approximately \$315 million), including any amount paid by the shipowner and his insurer. The HNS Fund is supported by contributions made, post-incident, by receivers of HNS in States party to the Protocol.

While claims against the Fund for loss of life and injury have a priority, the Fund can also be used to reimburse the costs of reasonable measures taken following an incident, to minimize or mitigate the impacts of that specific incident.

Vessels entering the waters of a state party with a cargo of HNS are subject to a compulsory insurance requirement and may be required to produce a certificate showing they have the required insurance.

If the government chose to follow the oil-spill response model, it could enact a requirement for vessel owners to have a contractual arrangement with a private-sector responder or response organization. The response organization's costs in responding to an incident would be chargeable to the contracting vessel owner, who would in turn be reimbursed by the insurer.

The *Canada Shipping Act 2001*, the *Transportation of Dangerous Goods Act* and the *Marine Liability Act* all have provisions that could be relevant in recovering the Department's costs in responding to pollution events. If a public model was implemented, it might be useful to examine Transport Canada's legislative base to determine whether there is a need to make

some further provision in law for recovery, from vessel owners and their insurers, of the direct response costs of public agencies.

Ensuring that polluters can and do reimburse the costs of addressing actual pollution incidents does not address the costs of creating and maintaining a national preparedness and response system. Under the oil spill response regime, operators of oil facilities and vessel owners pay a fee for registration with a certified RO. They also pay a Bulk Oil Cargo Fee. Essentially, this mechanism is used to divide the day-to-day operating costs of the RO among its members, based on how much oil each one transports or receives. The RO computes this levy, based on audited operating figures. A comparable arrangement might be considered as a means of assuring a basic level of revenue to organizations mandated to respond to HNS incidents.

A slight variant—useful for either a public or public-private model—is to charge an upfront fee to vessels upon application to an organization for response coverage. The HNS Background Paper cited the example of Japan, where a government body, the Maritime Disaster Prevention Centre, is mandated to offer HNS emergency response services. To have access to this service, vessels apply for a certificate and pay the Centre a fee based on tanker tonnage. Costs of an actual response are charged separately.

5.0 THE OPRC-HNS PROTOCOL: Bringing it home?

The foremost argument for acceding to the OPRC-HNS Protocol is to give legal force in Canada to an internationally recognized set of requirements for HNS incident preparedness and response. The provisions of the Protocol appear to provide a sound and realistic framework for action at the national level.

There are other practical arguments as well. For example, a Canadian vessel that visits a port in a state that is a party to the Protocol may today be required to have a “Pollution Incident Emergency Plan” onboard—notwithstanding that Canada has imposed no such requirement and there is no provision for Transport Canada to approve such a plan, if submitted by a vessel owner.

The OPRC-HNS Protocol would come into effect three months after Canada deposits the accession instrument with the IMO. In effect, Canada would need to be in full compliance with the Protocol’s requirements *before* acceding to the Protocol. All regulatory changes and the specific program measures outlined in the Protocol (National Contingency Plan, locating of pre-positioned response equipment, etc.) would need to be in place by that date. The outcome of the current consultations on a national preparedness and response regime will be an important factor in determining both the feasibility and the timing for achieving compliance with the Protocol’s requirements.

One challenge to determining the feasibility of accession is the broad language of the Protocol itself. The definition of HNS is purely qualitative; there is no provision for limiting its application through listing of specific HNS or identifying the priority substances for attention. The Protocol also relies on open-ended national requirements, potentially applicable to all HNS shipments. It

makes no distinctions based on size of vessel, size of shipment or sensitivity of the receiving marine environment.

In the absence of definitive guidance on implementation from the IMO itself, it appears that national governments have considerable latitude in interpreting what constitutes national compliance with the Protocol's requirements. Some states that have implemented the Protocol have, quite clearly, chosen a targeted approach. Both Australia and Japan have, to date, focused on bulk shipments in their national preparedness and response regime. Japan also prescribes in regulations the subset of national waters to which its response requirements apply.

Thus, it might be feasible to accede to the Protocol if Canada were to adopt a phased-in approach to a national HNS incident preparedness and response regime. For example, it appears that accession could still proceed if:

- Measures such as the creation of a national response regime or the enactment of requirements for shipboard HNS emergency response plans were applied only to bulk shipments of HNS substances (the extension of those measures to HNS transported in packaged form could then be considered at a later date);
- Canada applied the HNS emergency plan requirements first to ships (as per Article 3 (1) of the Protocol) and then, in a second phase, developed similar arrangements for major ports and chemical handling facilities; and,
- Canada, like Japan, were to focus its actions initially on specific geographical areas where the potential, the risks and the consequences of a marine HNS incident are the greatest (e.g. areas of high vessel traffic; environmentally sensitive areas).

6.0 QUESTIONS FOR DISCUSSION

The following questions are provided to solicit the views of stakeholders and experts in the design, funding and implementation of an HNS preparedness and response regime for Canada.

Regime Principles

1. Do you agree with the proposed list of HNS preparedness and response regime policy principles in the Discussion Document?

If not, which ones would you change and/or add?

2. Is Canada's existing oil spill response regime (*public-private delivery model under government leadership*), including the "Response Organization" concept, useful models for addressing HNS incident preparedness and response?

3. Should Transport Canada seek a single, integrated regime that would cover both oil spills and HNS incidents?

4. Should the regime for HNS incident preparedness and response be a public model, a private model or a mixed public-private model?

What are the main arguments in support of your position?

Regime Design

5. What specific elements/components should be included in Canada's preparedness and response regime?

Elements such as:

- requirements to report on HNS shipments, to support a real-time data base of HNS movements in Canadian waters
- requirements to carry and implement on-board HNS incident emergency plans
- the Canadian Coast Guard's 2011 National Contingency Plan
- training and certification requirements for private-sector personnel and response organizations

6. Are there any program elements that you do *not* recommend for inclusion and why not?

Regime Introduction

7. If a phased-in approach was used, should the focus be on vessel shipments in isolation from ports and chemical handling facilities?

8. What would you say are the priority substances for coverage?

9. Should low-impact products, such as coal and wood-pulp, be excluded entirely?

10. Should requirements apply to shipments of packaged goods or only to bulk shipments?

11. What should be the threshold (e.g. size of shipment, size of vessel)?

13. Should northern regions of Canada (including the Arctic) be excluded from the application of some or all components of an HNS regime? If so, which components and why?

Financing the Regime

14. Who should be required to contribute financially to HNS incident preparedness and response?

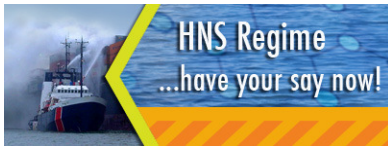
15. Have you any advice on how that contribution should be made, for example, an industry-administered fund? Through a government levy on HNS shipments?

Collaborating with the US

16. In order to prepare for and respond to trans-boundary marine pollution incidents involving HNS, should Canada seek more integrated arrangements with US authorities?

General

17. Are there other aspects of regime principles, regime design, and implementation you would like to share? Is there any other advice you would like to provide on how to proceed?



Please forward your answers and comments to:

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