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Re: Tanker Safety Expert Panel Review

Environmental Sustainability staff at the City of Richmond provide the following technical comments to the Tanker Safety Expert Panel review of Canada's Marine Oil Spill Preparedness and Response Regime. Although the City was not formally asked to review and provide comment for this process, City staff became aware of the ongoing review and feedback opportunity, and has sought an opportunity to provide input. The comments below are, for the convenience of the Panel, organized in direct response to the 26 "Lines of Inquiry" questions provided by the Panel as part of the on-line consultation documents.

Executive Summary

The following comments directly address the 26 "Lines of Inquiry" provided by the Tanker Safety Expert Panel, and outline several areas of concern relevant directly to the City's position as a common first responder to emergency situations, and to the City Staff experiences as part of the Technical Working Group for a recent Environmental Assessment for a bulk fuel tanker project. The City of Richmond is located on an island at the distal end of the Fraser River Estuary, and is adjacent to extensive fresh-water, estuarine, and saltwater habitats including RAMSAR-designated wetlands and the Great Pacific Flyway.

Staff note a general lack of transparency and accountability in the existing spill response regime, and unclear reporting, communication and jurisdictional interactions in the event of a major incident. In light of increasing vessel movements and volume of hydrocarbon transport along our shorelines, staff identified gaps in science regarding the baseline ecological conditions, the applicability of various response techniques, and the cumulative risks related to multiple concurrent projects. The federal Government (through the Coast Guard) hold the responsibility to provide coordinated and rapid response in the event of a spill event, financing that the response should be based on a "polluter pays" principle, and further that a "user pay" principle be used to fund preparedness. Staff are not convinced that a timely, robust, and effective response could currently be deployed in the event of a major hydrocarbon spill in tidal waters adjacent to the City, and refers to the 2010 *Report of Commissioner of the Environment and Sustainable Development to the House of Commons* for recommendations.

General

1. *Does the current oil spill preparedness and response regime meet today's needs? What about future needs? What elements of the current regime could be improved to make it "world-class"?*

The Auditor's Report (*Report of Commissioner of the Environment and Sustainable Development to the House of Commons, 2010*) identified that the current oil spill preparedness and response regime does not meet today's needs. This report outlines how the responsible Federal Agencies have made little progress toward fulfilling the 107 specific recommendations coming out of the 1990 Brander-Smith Report, and points out flaws in various aspects of the spill response regimes set up following the Brander-Smith Report, including:

- Incomplete risk assessment by the lead agencies (Coast Guard and Environment Canada) which hampers the ability to plan an resource based upon actual risk;
- Emergency Management Plans by lead agencies that are not coordinated or up to date;
- No comprehensive inventory of response capability of the Coast Guard, who are meant to be the lead response agency from the Federal government;
- A lack of response tracking, reporting, and record keeping by Federal Agencies, hampering the ability to provide analysis of spills, spill risk, adequacy of response, or level of preparedness;

The 2010 Auditors Report includes nine specific recommendations to improve the Federal spill response regime, all of these recommendations agreed to by the Federal Agency or Agencies with jurisdiction. To date, there is no evidence any of these recommendations have been followed.

Since the 2010 Auditors Report there have been significant cuts in staff and funding allocated to two of the three Federal Agencies, including the closing of facilities in Greater Vancouver that would have provided the enhances local support required to deal with increasing marine traffic and concomitant spill risk.

The term "world-class" is also not defined, nor is it possible to set a metric for such a term. For the purposes of comparison, the UK takes a different approach, following on the Donaldson Inquiry in to the loss of the MV Derbyshire. There, one individual is appointed to take control of major oil spills as the Secretary of State's representative (SOSREP) with clear and defined powers for control of pollution incidents to intervene and prevent the discharge of oil such as beaching a vessel in a port of refuge. It was held by the Donaldson Inquiry that a response could not be done by committee because of overlapping interests and jurisdictions. In Canada, with significant overlap between departments, the regime has never been tested in a real incident.

2. *Does Canada's current regime, which is based upon a public-private response model in which industry-funded Response Organizations take the lead in preparing for and responding to an oil spill, continue to make sense for Canada? What changes, if any, would improve the model to "world-class" status?*

There is a need to define what would be required to meet "world-class" status. Who is the leader internationally in spill response planning? It would be helpful to have background information on what is defined as "world-class", such as a comparative review of international policy backgrounders.

The effectiveness of any industry-funded response will rely on the strength of the regulatory regime and the ability for regulatory agencies to both oversee the operational organization, and make binding, enforceable orders where response is found to be inadequate. Ultimately, the responsibility for the effectiveness of any response in the event of a spill must be upon the Federal Regulatory Agency charged to protect territorial waters and the Constitutional rights of First Nations to access their traditional resources.

Private Sector Companies (limited to a single company on the West Coast) have sourced large numbers of contracts throughout the region, all based on the principle of cascading resources. This raises several concerns:

- What is the obligation to show capability or limitations to provide service to the region if there's more than one concurrent incident – especially one resulting from a regional catastrophic event (earthquake, tsunami, hurricane, etc.) ;
- As a major incident in the Strait of Georgia will extend across jurisdictions, how will resource-sharing with Washington State be structured – are both jurisdictions relying on support and resources from each other? (Note Oregon and Washington to not share cross-jurisdictional resources, but are self-sufficient, building in important redundancies);

Is there an ongoing renewal and updating of response equipment, to keep equipment from being outdated or made obsolete? What's the plan to update these supplies on an ongoing-sustainable schedule?

3. *In terms of oil spill preparedness and response, are the current roles and responsibilities for government and industry clear? Are they appropriate? What changes would you suggest to improve roles and responsibilities under the current regime?*

No. There is concern that industry role shifts to shipping line after vessel leaves loading dock and that industry requires federal oversight. There should be clear definition of roles and responsibilities for Environment Canada, Coast Guard on how spill response would look from an EOC perspective.

There would be different levels of EOC activation, ramping up as the size of the spill became recognized. As most response would start at the local level, there needs to be more of an engagement – it would be helpful to have EOC exercises at multiple levels to identify what is needed with funding, and to ensure that that recommendations from simulations that are used to inform and update EOC operators at every level. As any spill event will be a dynamic occurrence while waiting for resources to deploy, seamless communications and a clear Incident Command structure is vital to identifying resource allocation.

4. *What future trends or emerging developments (for example, new petroleum products, new response techniques or increased vessel traffic) should be taken into account to enhance the current regime to "world-class" status?*

There are currently four major projects in the planning stages which, if approved, will significantly increase vessel movement in and around Greater Vancouver: The Trans Mountain Pipeline Expansion Project (proposing to increasing heavy oil tanker movements by 7x), the Vancouver Airport Fuel Delivery Project (proposing to introduce bulk fuel transport in to the Fraser River for the first time), the Roberts Bank Terminal 2 Project (proposing to double the number of large container ship movements by 2024), and the Fraser Surrey docks Coal Facility project (proposing to bring bulk coal shipments to the Fraser River for the first time). Each of these projects are being

reviewed separately, and there is no indication that analysis of *cumulative* risk concomitant to the increased traffic of all types.

There is also little discussion of the variety of petroleum products being moved by bulk (dilbit, syncrude, refined products, etc.) and how response timing, equipment requirements, training, and impacts will vary based on product.

There should be a review of different materials dynamics, fates and effects (i.e. is WCMRC prepared for dilbit cleanup? Are resources for Jet Fuel cleanup compatible with dilbit issues)? The Canadian government previously funded research projects to ensure that materials can be responded to (i.e. biofilm research for jet fuel) – where is the continuation of this type of research? Will WCMRC be required to research most effective clean-up and recovery techniques? What standards have been established for response, containment, clean-up and restoration? Who is performing the scientific analysis to support creating standards?

5. *There are currently six Regional Advisory Councils (RAC) and one National Advisory Council (NAC) which provides advice and feedback to the Government of Canada on the current regime. What could be done to improve this feedback mechanism? Are the roles and responsibilities of the RAC and the NAC clear? Is this structure a best practice?*

There are several concerns with the Councils. Currently, they have no budget, no authority to make policy, direct operations, approve plans, review technical standards or resolve disputes. There is no effective outreach to local government, nor is there evidence they report out their meetings or findings, and although their meetings are open to the public, it is unclear when or where they meet. There appears to be no feedback mechanisms to local government or first responders.

6. *Canada's current regime is standardized across the country, with all ports, ship-owners, oil handling facilities and Response Organizations operating under the same legislation, regulations and guidelines. Is this an appropriate model for Canada? What improvements could be made to the current model?*

It should be appropriate that marine spill response operate under the same *guidelines* and *standards* if they are “world-class”. However, risk and impacts vary by region, and the responses should be tailored to meet the actual local risks.

British Columbia's Pacific Coast is a complex coastline, with unique and locally fragile ecosystems. There is also a significant and real risk of earthquake and tsunami on the BC coast that is not prevalent in other jurisdictions. The concentration of bulk oil movements adjacent to the globally important Fraser River salmon stocks and Great Pacific Flyway are also unique local considerations. Conversely, ice impacts, permafrost, and other factors important to other jurisdictions are not relevant to the West Coast scenario.

7. *Does the current preparedness and response regime clearly define how it interacts and links with Canada's liability and compensation regime? What changes, if any, would improve the current framework to world-class status?*

The term “world-class” is poorly defined.

8. *Canada currently has two regimes for marine oil pollution: one for ship-source oil pollution and one for oil pollution from oil exploration activities and offshore platforms.*

What are the benefits to having two separate regimes? What are the risks to having two separate regimes?

The two separate regimes relate to differences in the international regulatory framework related to the activities. Dovetailing with the respective international standards is a starting point, but nothing prevents (or should prevent) the local agencies making improvements to local compensation schemes without waiting for the larger international agreements to be developed.

The marine shipping industry is regulated by the IMO which is international and addressing changes to requirements at that level can take considerable amount of time. No agency is currently proposing offshore oil development in British Columbia: we should be addressing the real risks of the projects being proposed without distraction.

Preparedness

- 1. Are the preparedness requirements for ports, ship-owners, oil handling facilities and Response Organizations adequate? What changes, if any, would improve the system to make it world-class?*

It would be helpful to define “world-class” with examples of world-class preparedness requirements. The preparedness requirements should be reviewed against all projected marine traffic and updated on a mandatory basis to ensure that it remains world-class. It is suggested that the resources be reviewed with consideration to expanded shipping traffic (cumulative assessment) and products to ensure that the preparedness meets the actual conditions.

Time of response is of the essence and it is important to have more rapid response times, these should be updated. In the Lower Mainland, local governments are expecting a response time within the hour.

Emergency plans and preparedness requirements should be considered evolving documents and should be regularly updated and shared with stakeholders to ensure information is current information.

- 2. Does research and development play a strong enough role in the current regime? Who should be responsible for funding and conducting research and development related to the oil spills?*

The Federal Government needs to provide a comprehensive review of the current state of research and development in Canada regarding spill response, and evaluate what impact (if any) the recent reductions in research and scientific staff in the Federal Agencies that may perform this type research (Environment Canada, Fisheries and Oceans Canada, the Experimental Lakes Area, etc.) may have.

Industry should provide an updated list of all products types on a regular specified basis (i.e. annually), a gap analysis should be conducted to ensure there is coordinated information, research to look at impacts of these products on the receiving environment (including our local condition i.e. water temperature, salinity are different in different water bodies) should be managed by the Federal government and funded by industry.

3. *Is there a need for a greater degree of coordination between government departments, between different levels of government (federal, provincial, municipal and international) and between government and the industry in respect to training, exercises and research and development? What could be done to make the coordination of these activities more effective? What steps should be taken?*

Yes. In the Metro Vancouver regional district there are multiple local authorities, First Nation governments and other jurisdictions. Panel response to date has been focused on federal departments; there is a need for better integration with Provincial, First Nations and local governments on emergency planning.

There should be relevant and regular inter-agency training, simulation exercises. As an example, Kinder Morgan did an exercise in 2012 that informed City of Burnaby of exercise but did not invite local government into the exercise. By comparison, industrial stakeholders operating in the Lower Mainland (Shell, Chevron) have invited local government as partners in EOC exercises.

Integrated exercises are important to ensure all considerations are put forward, to build relationships and understand each other capacities.

4. *How should risk information related to the potential for an oil spill and its possible impacts be used to inform the elements of the regime? What other information should be taken into consideration when government and industry formulate their preparedness and response plans?*

The baseline for Marine Oil Spill Response is based on existing data, however, there are significant data gaps within this data. Updated field work was necessary to create accurate baseline for the Inlet and Fraser River Delta. Best practice would be to have a complete field assessment by a coordinating body (BIEAP/FREMP replacement ?) including - but not limited to - species indicators with data available in an open manner to stakeholders (i.e. local government, First Nations, stewardship groups, academic intuitions, other interested parties). This data will be fundamental to guiding recovery process and ensure before marine areas are declared 'clean', they are returned to same condition or better than before the oil release.

Federal government must, under their jurisdiction, take lead on this work.

There needs to be an inventory of potentially impacted parties in the potential spill area. There needs to be integration in the planning, response and training elements. This includes the impacted stakeholders (i.e. sports fisherman, First Nations fisheries, recreational users, park users for local beaches, waterfront commercial operations, etc.).

Other trends that should be taken into account is the densification/population increase in Metro Vancouver. The increase in population requires a look at air quality impacts. Cumulative risk assessment is important to include higher impact related to population size and where density is located.

5. *What other preparedness requirements should be incorporated into the regime?*

Canada, unlike other coastal nations, has no prepositioned dedicated, state-funded salvage tugs such as those in the U.K. or France. With the large number of ships transiting from East Asia and the ongoing trade along the West Coast from Alaska to the Western States, how prepared is the Coast Guard to respond to a disabled ship before it comes ashore?

Public health authorities and Fire Departments (Haz Mat first responders) need to be integrated into the process, both as stakeholders and as advisors. There should be a review to ensure water quality objectives include human health requirements to allow for decisions of evacuate, allow people to return, etc. Public expectation often requires a local authority will often respond to reduce the impact regardless of whether of jurisdiction.

Coast Guard example – need to have a model for continual improvement for equipment purchase. There should be a funded model for local government and First Nations who may be the first responders

Response

1. What could be done to make the response to oil spills more effective and efficient?

How do they monitor responses? What is protocol for reviewing response and making improvements where recognized. By comparison, how does international oil spill information (i.e. incident in US) get reviewed to ensure that oil spill plans are up to date?

Who is responsible party for communicating spills and how is it documented? Where does information get posted? Suggestion for mandatory reporting for spills of a certain sizes on a publicly available basis – consideration of PEP type database. In general, the information is not shared widely. What is Canadian Coast Guard documentation? Transparency is required such that all stakeholders (including local government) can have confidence in the level of preparedness, and the robustness of the response in the event of an incident.

2. Is there adequate oversight of the Response Organizations under the current regulatory framework? Are the current Response Organizations Standards adequate? What, if any, changes should be made? Is the certification process for Response Organizations adequate and is there sufficient expertise present during this process?

The current frequency of review of the Response Agencies should be reviewed to ensure it keeps up with changing marine traffic and types of products. The oversight provided by Transport Canada should be available in an annual report, including feedback mechanisms for impacted or potentially-impacted third parties.

3. Is the current regulated response capacity of 10,000 tonnes sufficient or should it be increased? What could be done to improve on this current model for regulated response capacity?

With the proposed Kinder Morgan Pipeline Expansion based on Westridge Terminal accommodating an Aframax ship (up to 115,000 dwt) every day and the proposed Vancouver Airport Fuel Facility accommodating Panamax ships (up to 80,000 dwt) up to several times a week, perhaps 10,000 Tonnes does not acknowledge the risk presented by the catastrophic loss of even one of these local-service vessels.

Traffic in our area includes shipments coming to and from our area but the West Coast of BC is also exposed to shipments coming from Alaska to the Western States and other shipments that transit through our waters.

Also, the current criteria indicate the response materials must be on site (not deployed) within 72 hours in the event of a 10,000T spill. This is wholly inadequate in a setting such as the Lower Mainland, where River conditions, tidal flow through the Gulf Islands, and extensive areas of globally-significant wetlands exist. 72 Hours represents up to 6 tide cycles in an area where the tide range is large (>3m), tidal currents measured up to 5 knots, and storm and gale force winds are common. There will be no effective response after 72 hours of tidal, wind, and wave dispersal of more than 10,000 Tonnes of oil.

There should be a transparent science-based review of the response capacities requirements.

4. What could be done to increase the capacity to respond to spills of unconventional oil products (e.g. diluted bitumen)?

This requires more information on the products, ensuring there is research on the products.

Based on the research on the spill response for unconventional products, the industry should provide an enhanced plan that relates to the response requirements for unconventional products, and clearly acknowledges the differing responses required for different products.

5. What role should the Canadian Coast Guard take during the response to an oil spill?

They should be the lead agency. They are the representative of the Federal Government with the constitutional responsibility for the resource, and the legal authority to operate within and enforce regulation over the coastline. Local government lacks authority and resources to manage even a moderate spill, and have no access to funding sources that may provide those resources.

As the Federal Government is the lead agency in providing approvals for these projects (through the National Energy Board and Transport Canada), it ultimately holds the responsibility for assuring the projects are operated safely, and adequate measures are in place in the event of spill or accident. As the Coast Guard is the representative of the Federal Government on the ocean, this role falls to them.

6. What improvements could be made to better integrate government and non-government stakeholders into the overall management of a response?

Communications is one of the main failures during emergencies. There needs to be an understanding of the communications protocols, equipment, etc. For example in the Metro Vancouver area BCAS and RCMP and many of the fire departments are on ECOMM radio system, however the Coast Guard and provincial Ministries are not on this system, creating a high-level communication gap.

There should also be outreach from industry to all potentially impacted communities/first nations and invite them to exercises, etc. First Nation and local governments need information and transparency. All levels of governments to have equal partners and equitable funding to provide world class response.

- 7. Is there a role for other parties to play in the response to an oil spill, particularly in more remote areas of the country? What factors would need to be considered if there is an increased role for them?*

First Nations and remote communities should be provided with training and equipment and compensated commensurate with responsibility.

- 8. The current response regime is based around mechanical recovery. Are there alternate response techniques that should be considered in addition to mechanical recovery for spill response? What are the pros and cons of these alternative mechanisms? How could these additional methods be included into the current regime?*

The mechanical recovery methods are limited to floating products. Unconventional products that can sink may require alternative mechanisms, as do products released in environments adjacent to the Fraser River Estuary, where hyperpycnal flows of sediment-laden water may result in adsorption of products to sediments, leading to dispersion throughout the water column. Recovery from bio-film laden shoreline sediments and wetlands is not possible, especially given 72-hour response times for major spill events.

Much more research is required regarding biomediation effects, and effectiveness given highly varied location, habitats, and terrains along the west coast.

The use of chemical dispersion or flocculation products is currently of questionable legality under the Fisheries Act provisions regarding deleterious substances. More research is required to establish strict protocols for when and how such products are deployed- there will not be time to make these assessments as the emergency is occurring; they must be ongoing and before hand, and risk-based analysis applied.

Liability, Compensation and Funding

- 1. How should a world-class oil spill preparedness and response regime be funded?*

Fully funded by industry. Whether through voluntary funding or through a Federal Fund that draws from Industry resources. The Federal government is the only agency that can apply these resources, and it is clearly Federal responsibility under the Constitution.

- 2. Is the current fee structure fair, reasonable and transparent, and does it meet the current regime's requirements?*

There is not enough information in the policy intentions paper to properly comment. Stakeholder consultation with a review of how the natural resource damage assessment policies are utilized is required to fully understand how restorative work would be undertaken.

There should be funding to ensure provincial resources are in place to support spills that impact on local municipalities and there needs to be a reasonable threshold to ensure that funds are disbursed for small events. The proposed amount of \$50 million needs further supporting details: is this amount adequate for the type of event that could occur in B.C., and if so, based on what research?

- 3. Canada's liability and compensation regime provides coverage for the costs associated with responding to an oil spill from a ship. Are there specific costs where the coverage for*

responding to an oil spill is potentially not adequate? Are there current limitations on the coverage that may impact a response to a spill?

See comments above.

- 4. There exist several models for funding the preparedness costs to an oil spill as well as providing access to emergency funds during an ongoing response. Would the dedication of a set amount of emergency funds similar to what is in place in the United States be an improvement to the capability to effectively manage a large spill? What improvements should be made?*

Yes it would be an improvement subject to a full review of its applicability under Canadian context. Baseline information on the receiving environment which is critical to ensuring adequate cleanup and determining when cleanup is completed. Oregon example with baseline – net detriment, this is regulated at state level. Baseline required to ensure there is a proper assessment

- 5. Could the Ship-Source Oil Pollution Fund be used more effectively for the purposes of preparedness and response?*


It would be helpful to have information on how the Ship-Source Oil Pollution Fund is administered. Without this information, it is difficult to ascertain how it can be used more effectively. Generally, preparedness should be expanded to include spill prevention and this should be reviewed and updated following adaptive management principles. This should be referred to as “user-pay” rather than “polluter-pay” to clarify that spill prevention and preparedness are included.

Closing

All comments and suggestions made above are drawn from preliminary research and collaboration with Municipal partners and inter-departmental discussions within the City of Richmond. Much of the information is based on local government experience in managing spill response, on municipal emergency preparedness practice, and engagement in Environmental Assessments for bulk hydrocarbon transport projects.

As the regulation and monitoring of shipping safety is a Federal responsibility, local governments are not staffed to provide detailed scientific or technical feedback based on the limited details regarding the existing or proposed spill response regimes. All comments herein should therefore be considered preliminary, and the City of Richmond reserves the right to expand or reduce the scope of concerns and comments in the future, as more information becomes available through the ongoing consultations.

Yours truly,


For
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LD:pj