GOVERNANCE AND ENGAGEMENT IN OCEAN OIL SPILL RESPONSE PLANNING: INTERNATIONAL COMPARISONS WITH PLANNING IN THE VANCOUVER REGION[1]

Trevor Heaver

Introduction

The announcement of a new National Oceans Protection Plan (OPP) by Prime Minister Justin Trudeau in Vancouver on November 7 2016 was a response to events that had lain bare deficiencies in Canada's oil spill response regime. In the budget of 2012, the government recognised the need to respond to new conditions in an expanding oil trade. One measure was to appoint a Panel to review Canada's Ship-source Oil Spill Preparedness and Response Regime. Its report (Tanker Safety Panel 2013) made 45 recommendations for change. Unfortunately, the deficiencies recognised had not been rectified when the MV Marathassa spilled some 2700 litres of oil in English Bay, Vancouver on April 8 2015. An independent review of the spill response (Butler report 2015) made 25 recommendations for change. Central to the recommendations were needs for more broadly - based involvement in spill response planning and more effective conduct of spill response through better management structures and practices. Response plans should take geography, environmental sensitivities, traffic volumes, and local partners and stakeholders into consideration. This is reflected in three initiatives undertaken in the coastguard regions. In BC, a pilot study Area Risk Assessment Methodology for the Southern Portion of BC was completed early in 2018. The second is the development of a Regional Contingency Chapter as a strategic plan that covers the entire West Coast. The third is to develop Geographically Specific Plans (GSP) which are often referred to as area plans, not to be confused with the risk assessment study. The Greater Vancouver Integrated Response Plan (GVIRP) is the first such a GSP.

While the Canadian Coast Guard (CCG) remains the lead agency in the planning and execution of plans for marine pollution incidents from ships, the organisation and processes by which planning and execution are done are changed radically. This is evident in the specific adoption of the Unified Command structure by whichthe CCG Incident Commander will work with the polluter (if willing and able) and stakeholders from federal / provincial / territorial agencies, aboriginal communities, and municipalities in a single or unified command setting for the successful resolution of the incident.Necessarily, a new level of collaboration is needed in the development of response plans.

This paper has two purposes. The first is to provide a context for current challenges in the development of spill response plans in Canada by examiningkey features of the spill response planning policies in the UK, US and Canada since the Exxon Valdez spill of 1989. The second purpose is to use the development and content of GVIRP as a case study of progress and issues in the development of Canadian area spill response plans. GVIRP 1 was signed off on 6 July 2017, GVIRP 2 was signed off on 19 December 2018, but there is only one matter of substantive difference between them, so reference is made simply to GVIRP.

The paper is in three further sections. The next section highlights the international governance regime of spill response and the adoption of practices in the UK, US and Canada. The third section of the paper examines the development and content of the GVIRP to identify the progress, challenges and shortcomings associated with the development and content of the plan. The final section presents conclusions on the strengths and weaknesses of GVIRP.

[1]Presented at the 54th Annual Meetings of the *Canadian Transportation Research Forum*, May 26-29, 2019, at Vancouver, B.C.

The International Regime

Majorimprovements in public policy related to the safety of tanker shipping and the response to spills have followed major incidents.The first catastrophic spill from the Torrey Canyon 1967 lead to theInternational Convention for the Prevention of Pollution from Ships(MARPOL), which came into effect in 1978. However, it was the grounding of the *Exxon Valdez* in Prince William Sound, Alaska in 1989 that led to global action on spills. The requirement for double-hulled tankerswas the most significant preventative measure required for US trade by theOil Pollution Act of 1990 (OPA 90) and internationally by amendments to MARPOL in 1992.The most profound measure for spill response was the International Convention on Oil PollutionPreparedness, Response and Co-operation (OPRC) adopted at the IMO in 1990. It came into effect in 1995.OPRC requires signatories to have national and regional systems for preparedness and response and a regime for international collaboration.

The policies and practices adopted by countries in the 1990s met the requirements of OPRC but there were significant differences among them. The UK and US are selected as countries that provide insights of value to Canada into effective spill response planning.Key elements of the policies in the two countries are the same although the governance regime for implementing responses have significant differences. This serves to highlight attributes of national policy which may have relevance for Canada. The UK regime is described first as the national framework differs from the federal structures in Canada and the US.

The UK regime: The Civil Contingencies Act (CCA) prescribes a single framework for civilprotection applicable to the full range of emergency events. The UK approach is based on the principle of subsidiarity, where decisions and responsibilities should rest at the lowest appropriate level, with collaboration and co-ordination at the highest level necessary. It entrusts local agencies with response to civil emergencies as far as possible. These local agencies are required to gain advice from Environmental Groups of government and non-governmental organisations and to achieve multi-agency cooperation through Local Resilience Forumswhich bring together senior representatives of the emergency services, local authorities, communityorganizations, and others.The specific application to oil spills is through the National Contingency Plan for Marine Pollution fromShipping and Offshore Installations (NCP). Under the NCP, the Maritime and Coastguard Agency (MCA),an executive agency of the Department of Transport, is the UK's Competent Authority for pollutionresponse. The responsibilities of MCA include response to spills from offshore installations and ships in the open sea under UKjurisdiction, leadership on spills of national significance in local waters (Tier 3 spills), ensuring competence to meet international cooperation obligations in spill response, and ensuring that ports and local authorities have plans and practices consistent with NCP as set down by MCA.The port and local authorities must have the capability of dealing with Tier 2 spills, those beyond the immediate capability of the polluter's resources and requiring the call out of a response organisation.

The MCA prescribes thecontent of and the processby which port plans are developed. The consultation process is familiar to those involved because it applies across all emergencies under the CCA. The MCA even goes as far as to advise ports that it is goodpractice to involve others from the outset in the port plan: it is not good practice to make a firstapproach with a completed draft.Plans are publicdocuments available on the internet with the exception of personal contact information and, in some cases, matters affecting national security or causing unreasonable commercial harm to persons or corporations. The certified response organizations areprivate corporations independent of the oil industry.

The US regime: The Oil Pollution Act 1990 (OPA 90) is the primary legislation governing oil spills in the US.It also established local involvement as a foundation of planning and response.In section 5002 (2) dealing with Prince William Sound, it states:

> … involve local citizens in the process of preparing, adopting, and revising oil spill contingency plans; …. only when local citizens are involved in the process will the trust develop that is necessary to change the present system from confrontation to consensus.

Following the example of Shetland's SullomVoe Environmental Advisory Group, formed in 1977 in relation to a major terminal for North Sea pipelines, the Prince William Sound Regional Citizens' Advisory Council was formed, matched subsequently by other regional Advisory Councils.

The US Coast Guard (CG) is the designated lead response agency for planningand response for navigable waters.The practices of the CG follow a national blueprint for response to alltypes of environmental emergencies (e.g., oil discharges, hazardous substance releases, natural disasters).The National Oil and Hazardous Substances Pollution Contingency Plan, commonly referred to as the National Contingency Plan (NCP) is the federal regulation that requires each of 16 Federal Regions to develop Regional Contingency Plans (RCPs). Area Contingency Plans (ACPs) exist under them.Area Committees (ACs), rather than advisory councils as in Alaska, are specified as the forum throughwhich ACPs will be developed. These committees are comprised of members from federal, state, andlocal governments and agencies, as well as representatives from indigenous. peoples, industry, ports,environmental organizations, and others. They are responsible for developing contingency plans,evaluating their implementation, and maintaining them through a continuous improvement process. AnAC may recognize sub-geographic areas in a Geographic Response Plan (GRP) to providemore site-specific environmental and wildlife habitat information critical to pollution response activitiesunder the ACP. As a result, the number of AC members is variable and tiers of participation may emerge.

All plans are public documents as required since the Emergency Planning and Community Right-to-Know Act of 1986. Spill response organisations are private companies independent of the oil industry.

Common characteristics of the UK and US regimes: Each regime is well established and follows an all-hazards approach to contingency planningresulting in a standard process to all emergencies. The result is a strong consistency in structure and processes while plans focus on specific geographic areas with their varied economic and environmental conditions.In each country, organisations are required that ensure and facilitate local involvement in the planning and response processes: theEnvironment Groups and Local Resilience Forumsin the UK and the Area Committees in the US. The response plans are public documents and can be accessed readily on the internet

The Canadian regime: The Canadian federal government responded to the ExxonValdezspill by appointing the Brander-SmithPanel in June 1989. The primary attention of the Panel was large spills. The Panel's recommendations led to extensive discussions and acceptance that spill preparedness should be undertaken asa partnership between government and the private sector (the oil industry). The Ship-source Oil Spill Preparedness and Response Regime was developed requiringamendments to the Canada Shipping Act in 1993 and new regulations in place in 1995.Under the national regime Transport Canada setsout operating standards to which response organisations (ROs) must comply. Canada chose, uniquely, to ensure the availability of adequate spill response capability by having major oil companies form ROs funded by a levy on oil traded by ship and by contracts with those desiring or required to have contracts that ensure spill responsecapability. There is a response corporation in each of the CG regions defined by Transport Canada. In Western Canada the RO is the Western Canada Marine Response Corporation (WCMRC).

The resulting policy was heavily focused on ensuring operating capacity in spill response and clear response management by CG. In the 2006 User's Guide to Response Management, community engagement is mentioned minimally in the context of liaison in the event of a spill. Regional Advisory Councils are recognised but they are composed of six individuals appointed by and advising Transport

Canada, not the CG. They were so ineffective that the Tanker Safety Panel recommended that they be disbanded. They have not been disbanded but they play no direct role in spill response planning. In the 2011 Spill Contingency Plan, National Chapter, the existence of provincial and local governments, First Nations and regional and local agencies isrecognised. They are'outside agencies' with whom the CG should maintain 'productive relationships".In 2013, the CCG in conjunction with Port Metro Vancouver established the Marine Emergency Response Coordination Committees (MERCC) to improve on-water coordination and communication with an initial focus was safety and search and rescue; there are now seven regional committees with more planned. However, the Vancouver MERCC did not lead to more effective spill response plans and communications as evident from the spillfrom the MV Marathassain 2015 (or theUS tug Nathan E Stewart close to Bella Bella on October 13 2016). The need for major changes in policy were recognised in the Prime Minister's, announcement of a new Oceans Protection Plan on November 7 2016. This has been followed by announcements of variousinvestments and policy initiatives.

A revised Marine Spills Contingency Plan –National Chapterwas released in 2018. In it, the external agencies 'actively support preparedness and response activities'. They should play roles in the development of Geographically Specific Response Planswhich is consistent with established practice elsewhere.GVIRP is an area plan as defined by the National Chapter.In spite of the name, the current plan only covers the waters of the Vancouver Fraser Port Authority of English Bay to Indian Arm. The southern waters and adjacent communities are not included.It is an operational plan toclarify the roles and responsibilities of principal organizations, including the polluter, in response to a spill.The purpose here is to identify issues and challenges in the development of GVIRP, in its content and in its contribution to community safety so that recommendations can be made for the future. Practices elsewhere provide guidance for recommendations.

The Greater Vancouver Regional Response Plan
The development of the Plan was launched with athree - day planning session in October 2015 for federal, First Nations,provincial and local government representatives and other partners.During thesession, a draft table of contents was presented, discussed and, later, expanded into an annotated outline that served as the framework for the development of the Plan.Specific aspects of the plan were refined and processes detailed in subsequent meetings andworkshops that enabled the plan to be developed (and now updated) collaboratively.Many challenges have existed in the development of GVIRP.

Challenges in the development of GVIRP:First, there was not an effective foundation for a relationship between the CCG and local communities. The CCG is unusual as a federal agency with active local environmental responsibilities. There is not a standard structure for civil emergency response as exists in the UK and US. Most emergencies in Canada being local in nature are managed by municipalities and communities, or at the provincial or territorial level.This, and its heavy focus on marine operational spill response, meant that CCG had good relationships with the Harbour Master of the port and port industries but weak, at best, relationships with First Nations, most local governments and local agencies. Its experience in the Incident Command System did not result in the close relationships necessary for planning and implicit in a Unified Command system.

Second, some of the local groups lacked an appreciation of the role and content of spill response contingency plans; they had to be brought up to speed. Consequently, early workshops had to ensure familiarity with the rationale for GVIRP and achieve a good working relationship between the individuals involved. Achieving continuity of participation was a challenge. However, the process has realised good personal and better institutional relationships.

Third, the number of interest groups is large; seven local governments, three First Nations, and various emergency response agencies. Getting effective engagement with all the parties was a challenge,

aggravated by the demands placed on the parties' staff by the concurrent response planning initiative of the province. Effective engagement with the port city of Port Moody was not achieved. It is on the agenda for 2019.The demands on local government staff led to a proposal from local authorities and First Nations for industry or government funding a Regional Community Advisory Council (RCAC) based on the Alaska model, to mitigate demands on local staff and to enhance local knowledge.

Fourth, there was a duplication of meetings for many participants in the activities for GVIRP and those of MERCC, which is co-chaired by CCG and the Vancouver Fraser Port Authority (VFPA). To facilitate GVIRP development, an Environmental Response (ER) sub-committee of MERCC was established. Appendix 3 of GVIRP states that:

> …the ER Sub-Committee reports to and advises the MERCC and other relevant bodiesabout any aspects of marine pollution response that may impact its members….The ER Sub-Committee will serve as a gathering place for the EnvironmentalResponse Community in the Greater Vancouver area to foster and buildrelationships between response partners, familiarize on response techniques andprocedures and to develop an exercise program between members.While the Canadian Coast Guard is the lead agency for GVIRP, this Sub-Committee will service as the primarysource of subject matter expertise relating to any changes to the Plan.

Further. GVIRP states that the ER sub-committee will maintain the Plan and all appendices and annexes.The solution means that a sub-committee of an organisation with a related but broader and operations - focused mandate rather than a societal one, plays a key role in the maintenance and development of GVIRP for which the CCG is the lead agency.

The institutional membership of MERCC and its ER sub-committee and the listing of partners of GVIRP is not convincing of a sufficient level of participation by science-based organisations and expertise. Participation of science expertise from the National Environmental Emergencies Centre (NEEC) is cited but its roles and those of Environment and Climate Change Canada (ECCC) and the Department of Fisheries and Oceans should be more explicit. The appropriate availability of scientific expertise needs to be evident. The only private science-based organisation listed is the Vancouver Aquariumalthough the Oiled Wildlife Society of B.C. is mentioned as a resource available during a spill event. The vital role of scientific expertise is made clear in the work of the Environmental Unit (EU) during a spill response.

Finally, spill response unavoidably involves issues of the interface between plans for adjacent areas and between separate jurisdictions. Two jurisdictional situations affect spill response in Vancouver. First, the National Energy Board (NEB) is responsible ensuring spill response plans by inter-provincial pipeline companies and related oil-handling facilities (OHF) and for monitoring response from an OHF when no vessel oil transfer is involved. The OHFs have well developed and public spill response plans (as required by NEB) involving their own, RO and other resources. Second, provincial governments have clear interests in spill response but generally do not have jurisdiction for response to spills from ships. However, in B.C., the province has jurisdiction over resources of the foreshore and seabed east of and between Vancouver Island and Haida Gwaii. This is a result of a decision of the Supreme Court of Canada in 1984 upholding the designation of the area of the province by the British Parliament in the 1866 union of the colony of Vancouver Island and the mainland colony of British Columbia. The consequence is that the province has a strong claim to involvement in spill response and has been active in advancing its own agenda to ensure improved spill response capabilities. The effectiveness of coordination between jurisdictions is important to the effectiveness of GVIRP.

Issues in the content of GVIRP:The challenges of the process to develop GVIRP are reflected in the resulting document. The CCG was faced with the need to introduce individuals from diverse backgrounds to the concept, rational and content of a geographic response plan. Many of the individuals involved had

not met before and were not familiar with contingency plans. There was not a trusting relationship with CCG. These conditions seem to have had two consequences for the content of GVIRP.

First, the main text and even appendices arenot just a working document to guide the actions of parties in the event of a spill. They also provide a rationale for its existence, descriptions of some of the partners and issues faced in responding to spills and the rationales for structures and practices required. This mix of text lengthens GVIRP and detracts from it as a working guide to the organisation and actions under emergency conditions. It detracts from an essential purpose of a response plan which is to identify who is responsible for what and where.The effort to emphasise collaboration makes it hard to identify the precise place where the jurisdiction of parties end. Collaboration within a Unified Command is the means to establish strategies that result in consistent strategies across lines of responsibility. Geographic lines are arbitrary in the sense that the oil will go where it goes and response to it needs to be as seemless as possible. In the UK (and Australia), the principle of subsidiarity means that many local published plans exist. This highlights the need for all plans to be clear about the limits of responsibility while ensuring well coordinated response behaviour. I have not found the subject of geographic jurisdiction to be dealt with clearly enough in GVIRP. The province has jurisdiction when oil reaches shore outside of cities; this includes the University Endowment Lands, but no mention is made of services to this area. Cities usually have jurisdiction and the resources, either their own or through a RO, for the varied aspects of response ashore. This is the reason that early activation of city emergency operating centres is important. However, the emphasis in GVIRP is on coordination, without sufficient clarity on the demarcation lines of responsibility so important in the overall effectiveness of spill response.

Second, GVIRP appears to try to make up for the previous lack of local involvement by positioning certain local organisations in an especially prominent role.GVIRP states that the ER sub-committee of MERCC will maintain the plan and all appendices and annexes. Thisappears to imply that a sub-committee of a maritime organisation with a broad and operations - focused mandate rather than a societal one, plays a key role in the maintenance and development of GVIRP for which the CCG is the lead agency. This does not reduce the number of meetings of sub-committee members, does not change the fact that the CCG has jurisdiction and responsibility for GVIRP, nor that it is engaged in wide community consultations.

The general descriptive nature of some of the text may account for the language, in some places,being less precise than appropriate for such a document. There are two places where thetextfails to document the purpose and goal of GVIRP precisely. This may lead to false expectations. GVIRP states its purpose is: “to promote a consistent and predictable response to a ship-sourceor mystery-source pollution incident in the marine environment within Burrard Inlet.” While true, it is concerned as well with the end result. This might be clarified in the much later statement of response objectives. This states in part that adverse effects of a spill on economic activity are to be minimised while the protection of sensitive locations is to be maximised. The evident conflict is not recognised. Language which would be more appropriate could be along the lines that the purpose of GVIRP is to ensure effective integrated planning that sets in motionthe necessary actions to stop or minimise the actual or potential discharge of oil and to mitigate its effects.

There are unavoidable conflicts to be faced in response operations. A principle in planning is to recognise these and to offer as much guidance as possible to decision makers to avoid unnecessarily long discussions under crisis conditions when time is critical. While Annex C documents the role that Geographic Response Strategies (GRS) are playing in differentiating sensitivities in specific locations, GVIRP leaves decisions
regarding protection priorities to operations field staff. Hopefully such choices will not be necessary but it is better to agree on general priorities in the planning stage than face trade-off discussions under emergency conditions. GVIRP does not suggest priorities nor does it deal with the matter of different end

points in clean up for different types of location. While actual conditions such as tides and winds affect judgements about what can be achieved and, therefore, the best actions to take, recognition of priorities is an important guide to resource allocation.

The timeline of response is key to an effective response and is a feature of a response in the public eye. It is unfortunate, therefore, that local response plans can only refer to the national standards required by Transport Canada which start at 6 hours for a Tier 1 spill (up to 150 tons). This harkens back to the old regime of centralised decision making. It is unfortunate that this prevents the actual performance expected in GVIRP from being explicit.

There is only one significant change that I have identified in GVIRP 2 from GVIRP 1. That is deletion of a statement that GVIRP and associated appendices and annexes would be hosted on the Emergency Management B.C.(EMBC) website. It has not been. While it would be peculiar to have a CCG document posted only on theEMBC, the general matter of the publication of the plan and the appendices and annexes is important and is discussed later.

Conclusions

The most important test for GVIRP is the advance it has achieved in spill response; but some gain was not hard to achieve. The process to establish GVIRP has undeniably resulted in better communication among those involved. This has apparently guided improved performance in a number of response exercises but the results are not in public documents. The exercises are both to train those involved so that correct actions can be taken quickly and to identify shortcomings and ways that they can be overcome. Resulting changes to GVIRP are not known but a major revision to the document is needed (and, I understand, planned) to make it a more focused and concise manual for spill response.

The GVIRP process had the positive result of developing closer relationships among diverse parties with interests in maritime emergencies. In part, this was achieved through the enlargement of MERCC over time. It is understood that the CCG may advance the formation of MERCCs elsewhere for the general purpose of strengthening relations in the maritime community. This would be a positive development. However, the goals of MERCC are not confined to spills; it has a broad operation - oriented interests. While it is true that many organisations in MERCC need to be consulted in the development of CCG response planning, it does not seem necessary or appropriate for a sub-committee of MERCC to maintain the plan and all appendices and annexes, even if this sub-committee draws in other community representatives.It is a CCG plan to serve the public interest and should be, and be seen to be, managed as such.There is no logic to the arrangement, it is not likely to be adopted in spill response plans elsewhere and gives rise to ‘bad optics’.It is recommended that the special role of the sub-committee be terminated.

It is difficult to make conclusions relevant for the long-run demands placed on local government by response planning because of the weak base from which GVIRP started. The consequence was a greater amount of time required for its establishment than will be required for its maintenance although that will be considerable. Looking forward, some of the considerations at the time, for example RCAC, do not seem worthwhile. In the US, the Area Committee model was adopted outside of Alaska as the way to ensure effective local input. However, structural questions are appropriate related to funding local response capabilities, especially in remote areas.

A significant issue associated with GVIRP is the level of public knowledge and, linked to this, the level of community engagement. Publication is good practice as knowledge can mitigate issues in the event of a spill, for example, reduce the number of untrained individuals seeking access to a contaminated beach. Publication informs the public about protective measures in the event of a spill; the mere fact that information is published often increases public confidence. (But any spill is always bad news!)Unlike the UK and US and the NEB for OHFs, there is no national requirement that plans be made public; the

National Chapter makes no mention of publication. While it is understood that it is planned that GVIRP be made public, this should be a mandatory requirement. Publication might also be helpful for major exercises (assessments) of plans.Publication remains subject to limits to protect personal information and 'sensitive' information. Publication of GVIRP and the results of some exercises might have the added benefit casting light on the readiness of other agencies.

Publication is also a way to enhance community engagement. Response plans are designed to protect property and societal values. They may be developed under the leadership of CCG and exercised by the RO and other response organisations such as the police, but they 'belong' to the community that they protect. GVIRP is a step in the right direction through more effective involvement of local governments but the public is effectively excluded. This is not the case in the USwhere the Area Committees allow an effective voice for non-governmental organisations, or the UK where significant local presence is achieved through the Local Resilience Forums. The equivalent of Area Committees would provide a forum for the identification and discussion of local conditions and concerns and provide a forum for effective input to the development of response plans.

Of course, community engagement and the publication of planscome with an obligation to respond to reactions and with the costs of doing so. However, the processeshave been shown elsewhere to improve plans and, perhaps, as suggested in OPA shift attitudes from confrontation to consensus. The ability to respond to the public would be a further demand on the resources of CCG already needing to develop and maintain geographic response plans for Canada's coasts. The aggregate budgetary implications of the new response management regime for the CCG in the Oceans Protection Plan is not known.

One structural question that arises only in GVIRP's name, is whether the plan should be extended to the waterways of Greater Vancouver by encompassing the Fraser River system and, perhaps Boundary Bay. This should be done because of the critical importance of effective communication to the activation and integrated availability of resources in the event of a spill. A significant event in Burrard Inlet or the Fraser River would require notification to and likely activation across jurisdictions. Because of the radically different environmental conditions of the Inlet and the River it will be important to develop Geographic Response Strategies (local response plans) within Greater Vancouver, in a sense, nested plans. This is an undertaking that should be expected to require community participation (and is proceeding).

In summary, GVIRP was an essential step in the development of the necessary consultative approach to spill response planning. It has demonstrated the benefits from the new approach. However, it is inappropriate to think that the organisation structures and plan content of GVIRP should be simply transposed elsewhere. The principle of inclusion is correct but needs to be achieved in modestly different ways and extended to a wider community dialogue. This could be achieved by requiring consultation with Advisory Committees comparable to those in the US. The response plans need to be written more concisely for their critical role as working manuals. Finally, the GVIRP plan has not yet been subject to public scrutiny. The publication of plans should be mandatory

Endnote

The paper would not have been possible without the cooperation of Tim McCann,Deputy Superintendent, Environmental Response
Canadian Coast Guard, in providing a copy of GVIRP to me and discussing its development and content. Discussions with the following individual has also been invaluable: Daniel Stevens, John Staynor, and Anastasia Ovodova. However, a response plan is a document of great detail so this review is constrained by my limited time and expertise. While I have benefited greatly from the input of others, I am solely responsible for the content of the paper and regret shortcomings that I fear exist.