Technical Advisory Group (TAG) Sessions, September 2019: *Oil Spills, Unauthorized Discharges and Other Unplanned Events*

Engagement Activity / Meeting Notes

28, 2019 Thursday, September 12, 2019 9:30 a.m. – 12:30 p.m. NDT Conference Centre, Memorial University Association of Seafood Producers (ASBHP BP Canada-Nova Scotia Offshore Petrole	
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 BP Canada-Nova Scotia Offshore Petroleum Board (C-NSOPB) Canadian Association of Petroleum Producers (CAPP) Chevron Eastern Canada Response Corporation (ECRC-SIMEC) Edgewise Environmental / Newfoundland and Labrador Environmental Industry Association (NEIA) Environment and Climate Change Canada (ECCC) Fisheries and Oceans Canada (DFO) Fish, Food and Allied Workers – Unifor (FFAW-Unifor) Health Canada Husky Energy Imperial/Exxon-Mobil Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO) Memorial University (MUN) Miawpukek First Nation Mi'gmawe'l Tplu'taqnn Incorporated (MTI) Natural Resources Canada (NRCan) Newfoundland and Labrador Wildlife Foundation (NLWF) Nunatisavut Government Nunatukavut Community Council (NCC) Oceans North Transport Canada 	
n-person: Steve Bettles, Husky Energy Andrew Bouzan, NLWF Renae Butler, ASP Marcy Cloud, MTI	Video/teleconference: Evan Birchard, Imperial/Exxon-Mobil Mark Brooks, WWF-Canada Amanda Barnaby, MMS Dr. Heather Dettman, NRCan Ben Fieldhouse, ECCC
	Canadian Association of Petroleum P Chevron Eastern Canada Response Corporation Edgewise Environmental / Newfound Association (NEIA) Environment and Climate Change Ca Fisheries and Oceans Canada (DFO) Fish, Food and Allied Workers – Uniforment Canada Husky Energy Imperial/Exxon-Mobil Kwilmu'kw Maw-klusuaqn Negotiation Mi'gmawei Mawiomi Secretariat (MI Mi'gmawei Mawiomi Secretariat (MI Mi'gmawe'l Tplu'taqnn Incorporated Natural Resources Canada (NRCan) Newfoundland and Labrador Wildlife Nunatisavut Government NunatuKavut Community Council (No Oceans North Transport Canada World Wildlife Fund-Canada (WWF-Canadrew Bouzan, NLWF Itenae Butler, ASP

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	Maximlien Genest, NRCan	Jason Flanagan, Transport Canada
	Ross Hinks, Miawpukek First Nation	Susanna Fuller, Oceans North
	Johan Joensen, FFAW-Unifor	Michael Hingston, ECCC
	Kim Keats, DFO	Matthew Lehoux, MMS
	Dr. Bill Montevecchi, MUN	Jennifer Matthews, CAPP
	Ashley Noseworthy, Edgewise/NEIA	Stanley Oliver, NCC
	Derek Peters, KMKNO	Paul Page, BP
	Mike Pottle, BHP	Janice Ray, C-NSOPB
	Sara Rumbolt, Health Canada	George Russell, NCC
	Robert Starkes, ECRC-SIMEC	Sarah Saunders, WWF-Canada
	Dr. Vandad Talimi, C-CORE	Claude Sheppard, Nunatsiavut Government
		Sarah Wong, ECCC
		Laura Wright, C-NSOPB
		Jennifer Wyatt, Chevron
		James Yao, ECCC
Participants (Internal)	Committee Members:	Regional Assessment Task Team:
	Gerald Anderson	Impact Assessment Agency of Canada
	Garth Bangay	Virginia Crawford
	Wes Foote	Erin Stapleton
	Keith Storey	
		Canada-Newfoundland and Labrador Offshore
		Petroleum Board (C-NLOPB)
		Melissa Moss
		Ken Taylor
	Spill probabilities	

1. It was noted that three oil spills occurred in offshore Newfoundland in the past year. There is concern that increased exploration means there is a greater risk for blowouts and spills, and that we do not fully appreciate the risk being taken on.

Fate and behaviour of spilled oil

Record of Discussion

- 1. Need to understand dynamic nature of the marine environment (including effects of climate change) and how that may influence spills.
- 2. It is important to understand the geographical extent in which the model is still valid. This is not one site but an entire region—extrapolating needs to be better understood. Caution is warranted on taking a regional approach to oil spill modelling. The concern that the region would have one model which would not accurately reflect spills in different "zones" (e.g., differentiated by water depth, temperature profile, prevailing currents, etc.) was discussed at some length. It was generally expressed that pre-activity modelling of spill scenarios remained an important planning tool for proponents and that requiring this activity as part of the contingency plans that go with an Operations Application would likely be

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required if it wasn't required for an environmental assessment purpose. Modelling during a spill response was a separate operational matter.

- 3. Past oil spill modelling has not included spill response procedures, but current modelling approach should. This approach may be reasonable for surface (i.e., worst case) however sub-surface is quite different. Fate will change substantially with sub-surface dispersion modelling and may assist in assessing Net Environmental Benefits.
- 4. Generally, oil spill models for this area shows oil moving further east. It was noted that there are transboundary issues associated with a spill moving east.
- 5. It was noted that operational spill models are validated for accuracy during and after spill responses. During a spill response the C-NLOPB receives modelling information from ECCC and the Operator, and that modelling information is compared to and validated against overflights conducted with Canadian Coast Guard Observers, on-water observations by response vessels, government requested satellite surveillance and opportunistic satellite surveillance. Models are run and re-run, and verified against satellite imagery and other observations.
- 6. Some participants expressed a concern that modelling software in use is antiquated and does not take into account components of the oil that do not make it to the surface. It was noted that modern modelling software includes what is happening in the water column, including accounting for a certain amount of oil in the water column, and in consideration of several variables (e.g., depth, temperature, evaporation, etc.).
- 7. Concerns were expressed with the size of the model domain going forward, and the potential impacts of oil moving outside it. It was noted that when considering socio-economic impacts, may need to use a much thinner layer as a threshold or run the simulations until all oil is dispersed, resulting in much longer times and oil leaving the established boundaries.
- 8. A participant inquired how new science be brought into the modelling going forward. Another participant mentioned there is continuing research in the area, and new information is being produced (e.g., Government of Canada Oceans Protection Plan is funding a research program in this area).

Spill prevention

- 1. There is concern that the number and size of spills recently is indicative that prevention measures are inadequate.
- 2. There is concern that most of the conversation on mitigation focused on spill response rather than prevention, but prevention is more important than response.
- 3. It was suggested that increasing fines to an amount that would be more significant to operators (beyond the current \$1 million absolute liability) would be an effective way to improve prevention.
- 4. It was recommended that more clarity be provided on limits of wave heights in which exploratory drilling activities can occur, as the current thresholds not clear.

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Spill response

- 1. There is concern that industry does not have the capacity to respond to spill events given the proposed increase in exploratory drilling activity (including boom availability and not having a capping stack in the province/region).
- There is concern that the spills this past year were not cleaned up effectively, and that information on how the spills occurred, volumes of spills, etc. has not been clearly communicated. Often initial reporting by the Operator in the early stages of an incident where information may be the least accurate, is mistaken for under reporting. Current communications around spill events and response are lacking or not understood.
- 3. There was a discussion on the tier system of response used in the offshore. A participant noted the continual need for applied research and technology development in response measures for spills.
- 4. There was a lengthy discussion on the use of spill treating agents (STAs) rather than dispersants, given that this is the term utilized in the statutes and regulations and captures dispersants as well as other products. Others were adamant about staying with the use of the term dispersants as this is what the public is used to hearing and understands.
- 5. There is a concern regarding the impact of dispersants on human health (via consumed species), and corals and sponges. It was noted that dispersants are generally toxic but proportional to oil spilled and related to the breakdown of oil. Some participants stated that more research must be done to fully understand the potential effects of dispersants on the marine environment and on species consumed by humans.
- 6. Natural dispersion occurs immediately. Whether or not a chemical dispersant is used, dispersion still takes place. There is also a seasonal element (e.g., more chemical dispersant needed in summer on Grand Banks, less or none needed in winter). Concerns about taint and bioaccumulation is not so much about dispersants, which are not always needed in this environment.
- 7. A participant inquired if the Committee would be making recommendations regarding what dispersants are acceptable for use. The Committee replied that they will not be making such a specific recommendations, and these type of specifics are covered in the Operator's Spill Impact Mitigation Assessment that form part of the submission requirements for an Operations Authorization issued by the C-NLOPB.
- 9. By regulation, ECCC approves the dispersants used. There is a long history of study and prior use for the approved STAs: Corexit 9500A and 9580A. Both the dispersant (9500A) and the surface washing agent (9580A) have had a number of studies completed on their effectiveness and toxicity before they were approved for use. There are potentially more STAs to be approved if ECCC can assess relative effectiveness and toxicity. There are a few other dispersants on the list of potential candidates, but there isn't a wealth of information available.

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- 10. The industry is developing and needs to leverage work that has been done elsewhere globally (e.g., on dispersants, source control, etc.), perhaps even bring in some global experts. There is a tremendous amount of information available. The American Petroleum Institute (API), the International Association of Oil and Gas Producers (IOGP) and International Petroleum Industry Environmental Conservation Association were cited as good sources of information.
- 11. CAPP invited participants to consult their website for information on spill response and contact them with questions.
- 12. There was discussion on the importance of the speed of enacting response measures to the overall response effort and that where possible pre-approvals be in place. There was agreement that while expedience is beneficial must continue to work within the legal framework provided.

Monitoring

- Some participants feel the concerns expressed regarding effectiveness of
 mitigation measures and the need for greater transparency provide rationale for
 having Independent Observers on drilling platforms (providing independent
 oversight similar to Independent Observers in the fishing industry). It would go a
 long way in improving public trust in the regulation of the offshore. Others
 questioned the effectiveness of having these observers onboard when there is
 already a multi-person, multi-platform, multi-event approach (e.g., flyovers,
 satellite, radar, etc.) in place.
- 2. It was recommended that a continuous monitoring program be developed and implemented following a spill event to better understand effects.

Impact on human health

- The effects of spills on human health is lacking. Bio-accumulation in species consumed by humans and risk to human health need to be better understood to determine impact. This may require on-going monitoring and consumption advisories in the event of a spill.
- 2. The psychological impacts of a spill is an important consideration for Indigenous communities for health and well-being.

Access to information

1. A participant noted that they had requested spill trajectory information on the last Hibernia spill from the C-NLOPB, and had not yet received the data (for which C-NLOPB charges a fee through the Access to Information Process [ATIP]). The participant asked why the data isn't publicly available and why it has to be requested. A staff member from the C-NLOPB replied that they do receive spill trajectory modelling information from ECCC, and that bird and marine mammal survey data is received as well during a spill response. While that information is shared among the agencies managing and/or responding to a spill under the auspices of various MOUs, public requests for that data have to be made under

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ATIP as the information is subject to restrictions laid out in Section 1-19 (Disclosure of Information) of the Accord Acts.

Communications with Indigenous communities

1. There needs to be improvement on current communications around spill events and response. There needs to be full transparency, including clearly laying out the response plan and sharing of monitoring information. Additionally, there needs to be clarity on what information/data is shareable and what is not, and if shareable, an understanding on when and how that information will be shared.

Compensation

1. It was noted that small-medium fishing enterprises are central to the economy of rural Newfoundland and Labrador. Perceived tainting will have impacts on all harvesters in the province. An appropriate approach to compensation must be considered —how can you compensate all those affected in the event of a spill (e.g., all those employed by the fishing industry, including those who service the industry)?

Timeline

- 1. It was observed that a 3-hour discussion was inadequate for such a serious, complex issue as oil spills.
- 2. There are concerns regarding the short timeline and how that may affect the quality/effectiveness/outcomes of the Regional Assessment. An example was provided of regional planning initiatives happening in the North that are 2-3 years in duration. The Committee replied that doing it right was more important to them than timeline.

Regulatory framework

- 1. If the Regional Assessment removes the need for project-specific environmental assessments, some participants feel that this gives operators "a free pass" and reduces public confidence in the regulator if there is no opportunity for public input. The Regional Assessment is covering a large region and shouldn't be used to give "blanket approval" to site-specific exploration drilling projects or to "fast-track" approvals.
- A question was raised regarding the need for authorization under the Fisheries
 Act if project-specific environmental assessment of exploratory drilling projects is
 no longer required. DFO confirmed that exploratory drilling projects still would
 have to be submitted to DFO for review, and there would potentially be an
 authorization needed from DFO.

Regulation of the offshore

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- 1. There needs to be independent oversight of the offshore oil and gas industry, especially when it comes to dealing with oil spills. Public trust should be a top priority.
- 2. There is a lack of transparency in the offshore. Industry should not be self reporting.
- 3. Suggestions that the current level of penalties and fines in the Accord Acts are insufficient and should be increased. In addition, the "ladder" approach to noncompliance should be considered where previous behavior influences current situation.

GIS Platform

1. It was suggested that historical oil spill data and modeling data be incorporated into the GIS system.

Follow	/-up /
Action	Items

Prepared By: Erin Stapleton, Virginia Crawford