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Chair

Mr. Leon Benoit

Standing Committee on Natural Resources

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● (0900)

[*English*]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)): I call the meeting to order. Good morning, everyone.

We're here to continue our study of the regulations and status of the emergency response to offshore oil and gas drilling accidents. We had two meetings on this a few weeks ago and we're continuing this four-meeting study.

I think we'll get right to the witnesses. We have five presentations today. I will do them, as usual, in the order in which they appear on the agenda, starting with Ron Bowden, manager of international sales at Aqua-Guard Spill Response Inc.

Go ahead, please.

Mr. Ron Bowden (Manager, International Sales, Aqua-Guard Spill Response Inc.): Thank you, and good morning to everyone.

[*Translation*]

I gather that I have the honour of being the first one to speak. My last stay in this city, our capital, dates back to when I was three years old.

[*English*]

I believe I have seven minutes, so it's a bit difficult to cover the areas I'd like to today. In general, we are active in the oil spill response industry. We're designers and manufacturers of oil spill response equipment and services. In the past we have also provided services for offshore contingency planning for oil spill response from the Bohai in China to the state of Alaska after the *Exxon Valdez* oil spill, etc. Actually, worldwide wherever there's water and there's oil, Aqua-Guard is present.

Generally, I think today I'd just like to say that we're here to see the procedures. I suppose it will be important for our country, as well as others, to actually legislate. Basically, we're responsible for our actions, so first we have to look at what our activity is, and that will determine what we need to have in place. We notice a lot in our work that we have the most difficulty where there is no legislation and everybody does whatever they want. It's important, therefore, in the context of Ottawa to actually understand what's going on in the gulf today. We have a great opportunity to learn now how we can actually hopefully avoid that in our waters.

I remember telling my children, when they were young and they'd go out, to make good choices. I think if we can make good choices, we'll stay on the right road.

We can take what's happening in the gulf today as an example. If the water pipe here breaks when we're turning on the faucet, we go up and shut off the main valve. Basically, that's what happened. It's very simple. What's happening today is happening because there wasn't a good choice made to have the necessary precautions in place. What can we learn from that? We're very busy ourselves with the oil spill. We're supplying equipment and sending a lot down. We can't supply enough, and I think most companies can't either now. That's the situation we're in.

I think what's important is that the governments and the oil spill response companies work together internationally to put together as many members as possible to try to combat the situation, which is actually overwhelming. Before we get there, I think we'd like you to know that we as oil spill response providers of equipment and services can actually offer the expertise, and we hope you will take the next step to actually put that into legislation, which we do have in this country in fact. Canada is very fortunate that we're very well equipped and organized.

We work with the coast guard on the west coast. We're actually not very present in Canada. We started out as a small family business in 1968, and we're still run by the same family. We're everywhere else in the world. It seemed easier for us to have access worldwide, but we're becoming more and more involved in Canada. Of course on the west coast we don't have offshore activity, so we've been more present in other arenas. We are involved in supplying our colleagues on the east coast, but I think there is a wonderful forum now in which we can actually see how we can better act and then react when it's time to react to these kinds of situations.

Those from BP, the entity involved in this spill, are the industrials. I began in 1974 with Gulf Oil and Petro-Canada, and I've spent my whole career in the oil business. It's very difficult for industrials—it seems funny to say—to get what they need, because often the legislation isn't there to help them. They're providing their services. They're specialists in what they do. They're doing the best they can, but obviously they're in over their feet. What I'm saying is we need the industrials to be there. They should be here today. The people in the oil business should be here today with us. They could help us with their expertise. Then, of course, they could give it to you people who could turn that into legislation, regulations, and so on, so we'd all be protected.

● (0905)

I think I have one more minute left. What I want to sum up in this brief talk is that we in the industry are very frustrated only because we've been waiting, since this situation began, for BP to call us with their needs so that we could help. Last week it began with BP—last week.

If BP had had a plan that was a little more developed and very clear in these kinds of cases of worst scenario... Many years ago, when I was head of safety and environment with an oil company in Europe—I spent 20 years in Europe—it was amazing. My boss said to me, “What do we have as far as our precautions? Next meeting, we're going to look at our worst-case scenario.” So we looked at our worst-case scenario and had a report: we weren't prepared. It looked real good, but we weren't prepared.

I think the worst-case scenario is what's happening today in the gulf. If they had been prepared, I think they would be in a much different situation today.

I'm sorry I don't have more time. I think we could go on for a long time here, trying to iron out the wrinkles, but I look forward to any questions when it comes to that time.

Thank you very much for your time.

The Chair: Thank you, Mr. Bowden, for your presentation.

We go now to the second presenter today, Carl E. Brown, manager of the emergencies science and technology section of the Department of the Environment.

Go ahead, please, Mr. Brown.

Dr. Carl Brown (Manager, Emergencies Science and Technology Section, Department of the Environment): Thank you, Mr. Chairman.

Mr. Chairman, members of the committee, as a research manager with Environment Canada's emergencies science and technology section of the science and technology branch, I oversee a research and development program to study the fate, effects, and behaviour of spilled chemicals on the environment. A major focus of this program is the study of oil and related petroleum products.

Before I provide details on the oil spill research and development program, I would like to describe to you Environment Canada's role in responding to an oil spill.

As the committee will be aware, responses to oil spills in Canada are always a combined effort of industry, non-governmental organizations, and federal, provincial, and municipal governments, depending on the location and scale of the event.

Environment Canada's role in the event of an oil spill is to provide scientific and environmental advice to the lead federal agency managing the spill. As the committee will be aware, in the case of an offshore oil and gas development in the Arctic, the lead agency would be the National Energy Board. In Atlantic Canada the lead agency would be either the Canada-Newfoundland and Labrador Offshore Petroleum Board or the Canada-Nova Scotia Offshore Petroleum Board.

Regional environmental emergencies teams, or REETs, chaired or co-chaired by Environment Canada, exist in every part of the country to provide consolidated scientific and environmental information from federal, provincial, or municipal agencies, universities, and industry representatives with expertise in emergency matters. During the management of a particular spill, the REET is always convened to provide advice at the request of the lead federal agency. Much of the advice provided to the REETs originates from the emergencies science and technology section, which I manage.

Environment Canada's environmental emergencies program and the research component were established under a 1973 cabinet directive on environmental emergency activities. Under this directive, the R and D component of the program undertakes to "develop, evaluate, or test new equipment and techniques, and develop an integrated technology program to improve preventative measures and ensure that field operators are trained in new techniques".

The program, through the emergencies science and technology section, carries out R and D on the fate and effects of chemicals on the environment resulting from emergency spill situations. The scientific knowledge generated is disseminated through published documents such as guidelines, technical seminars, and training courses for responders and partner agencies.

Environment Canada collaborates widely with Canadian and international government, industry, and academic partners on oil spill response research and development projects. Many of these collaborations have existed since the early 1970s. Some of the early research activities related to the Beaufort Sea project have already been reported to this committee by Dr. William Adams.

In 1976 the Government of Canada funded the five-year Arctic marine oil spill program, or AMOP, which was administered by Environment Canada. The objective of AMOP was "to develop oil spill countermeasures for use in offshore Arctic waters". The targeted result of the program was to be greater knowledge for operational agencies such as the Canadian Coast Guard and oil company cooperatives to acquire skills and equipment to deal successfully with a spill in Arctic waters. AMOP carried out feasibility studies, equipment design work, and in some cases the development of prototype systems.

As a way to communicate the findings of AMOP, a technical seminar was organized in 1977. The AMOP technical seminar has been held on an annual basis since that time, and is unique in that it is the only peer-reviewed international scientific forum focusing on research activities related to oil spills in all environments.

Since 1983 the emergencies science and technology section has also hosted the technical seminar on chemical spills, or TSOCS, which focuses on research activities related to spills of chemical materials.

Beginning in 2002, AMOP and TSOCS were combined into one peer-review process, and in the ensuing years the separate AMOP and TSOCS proceedings were published under the AMOP banner. To reflect the combined nature of these technical seminars, AMOP and TSOCS are now known as the AMOP technical seminar on environmental contamination and response. The 33rd annual AMOP was held last week in Halifax, Nova Scotia, June 7 to 9. Most of the significant oil spill research studies conducted around the globe are presented and discussed by international researchers and spill responders annually at AMOP.

● (0910)

Since AMOP was established, in 1976, Environment Canada has continued to fund an oil spill research program that has focused on the following areas.

One: the physical and chemical properties of oil and related petroleum products. We have a database that includes hundreds of Canadian and international oils, including Gulf of Mexico oils.

Two: the forensic analysis of fresh and weathered crude oils to determine the source of the spilled oil, which is important for the enforcement of Canada's environmental laws.

Three: the fate, effects, and behaviour of spilled oil, including trajectory modelling.

Four: oil spill countermeasures, including mechanical recovery, chemical treating agents, in situ burning, and natural attenuation.

Five: evaluation of the effectiveness and toxicity of spill treating agents, such as dispersants, solidifiers, and shoreline treating agents.

Six: oil-sediment interactions.

Seven: the study of water-in-oil emulsion formation and stability.

Eight: the development and evaluation of oil spill remote sensors, including a system that provided the world's first absolute measurement of oil slick thickness on water. This knowledge is important for the effective direction of spill countermeasure resources.

Nine: the development and evaluation of oil-under-ice detectors.

Ten: the evaluation and modification of mechanical recovery equipment, such as booms, skimmers, and heavy oil pumps.

Eleven: extensive laboratory studies, meso-scale and full-scale, on ocean in situ oil burning to measure related burn emissions, residue compositions, and dissolution into the water column. Environment Canada has developed significant expertise in the field of in situ burning, with over ten years of laboratory and field experience, including the 1993 Newfoundland offshore burn experiment. Scientists from a number of U.S. federal agencies recently contacted Environment Canada so that we could provide scientific advice on in situ burn air emissions associated with the Deepwater Horizon oil spill incident.

Twelve: shoreline cleanup and assessment of oil contamination, including fate and effects on shorelines—the shoreline cleanup assessment technique, or SCAT, which characterizes shorelines prior to and following an oil spill—cleanup techniques, ecological effects and recovery, and the development of decision-making aids and protocols.

Thirteen: oil spill sorbent evaluation.

And fourteen: the development of oil spill countermeasure standards, such as ASTM standards, which evaluate the effectiveness of commercially available countermeasures, allowing for informed decisions by spill responders.

In summary, my role as research manager is to communicate with domestic and international government organizations, academia, industry, oil spill responders, non-governmental organizations, and the public to identify oil spill research needs and establish priorities for future activities. These priorities are then used to direct oil spill research and development activities at Environment Canada, disseminate these findings, and provide advice to the lead federal agency managing a spill.

Members of the committee, I would like to thank you for your attention. I'm available to answer any questions you may have.

● (0915)

The Chair: Thank you very much, Mr. Brown.

Our third presenter, from the Department of Fisheries and Oceans, is René Grenier, Deputy Commissioner of the Canadian Coast Guard. With him is Chantal Guenette, manager, environmental response, Canadian Coast Guard.

Go ahead with your presentation. You have up to seven minutes.

D/Commr René Grenier (Deputy Commissioner, Canadian Coast Guard, Department of Fisheries and Oceans): Thank you, Mr. Chair.

Thank you for inviting me to discuss the Canadian Coast Guard's readiness to assist in marine pollution incidents related to offshore oil and gas drilling.

Legislative changes to the Canada Shipping Act in 1993 resulted in the establishment of Canada's marine oil spill preparedness and response regime in 1995. The regime was established to respond to ship-source spills; however, other governments and agencies have benefited, and can benefit, from this preparedness capacity. This includes offshore platforms.

The regime, still in place today, is under the responsibility of Transport Canada, and governs oil spill response in Canadian waters. The regime was created through legislation to ensure that the potential polluters pay for industry's preparedness capacity. It is built on a partnership between government and industry.

The industry, through a bulk oil cargo fee, funds preparedness capacity of private companies called “response organizations”. There are four response organizations in Canada. Together, the industry provides the capacity to respond to its own oil spills.

The geographic area of response covered by the four Canadian certified response organizations include all waters as defined in the Canada Shipping Act—in the Great Lakes and Hudson Bay, and on the east and west coasts. It does not, however, include those waters located north of 60 degrees.

On the government side, the Canadian Coast Guard is the lead federal response agency for ship-source and mystery-source pollution spills into the marine environment. This specifically includes spills on or into water by ships, or spills on water in connection with the loading or unloading of pollutants from ships at oil handling facilities.

[*Translation*]

As for the waters located north of 60, the coast guard is the main respondent in the event of spills caused by ships. Although its mandate includes being in a state of preparedness and having a response capability in the event of ship-source pollution incidents, but not of those caused by offshore oil companies, the coast guard must be ready to intervene in case there is a marine pollution incident in Canadian waters.

We work in collaboration with our industry partners and certified response agencies in order to ensure a state of readiness in the event of an oil spill. As such, we conduct regular exercises and training activities.

● (0920)

[*English*]

Specifically, the coast guard maintains more than 80 response equipment depot sites across the country, of which 19 are in the Arctic. That includes containment, recovery, and storage capabilities as well as a cadre of 80 dedicated trained responders. Other coast guard assets, such as fleet vessels with trained fleet personnel, could also be tasked to assist. In addition, other government departments, including the Department of National Defence, Transport Canada, Environment Canada, and Public Safety Canada, would have a specific role to play in accordance with their mandates and would therefore be engaged as required.

Obviously response must be commensurate with risks. Therefore the coast guard's response capability is based on the principle of escalation. A response begins at the regional level and involves local coast guard and industry resources. Should the required response effort exceed regional capabilities, additional resources from other coast guard regions would be brought to the spill site. Similarly, industry resources—mainly response organization resources—can also be cascaded to the affected region.

In addition, should national resources prove insufficient, agreements are in place to obtain international assistance. In ratifying international treaties addressing marine pollution, Canada supports a principle of mutual aid to respond to marine pollution emergencies. Similar to the Canadian Coast Guard, response organizations have strategically placed equipment depot sites across the country, as well as a cadre of trained responders that could be deployed to the incident scene. Response organizations are part of the global response network, an international group of responders who have agreed to offer mutual aid when available.

Let me assure this committee and all Canadians that when facing a major spill from an offshore platform, the coast guard would provide all available resources to assist our federal partners, industry partners, and international partners to minimize the damage caused by the spill.

Thank you.

The Chair: Thank you very much, Mr. Grenier and Ms. Guenette.

We go now to the Department of Indian Affairs and Northern Development. We have from the department Mimi Fortier, director general, northern oil and gas—welcome—and Kerry Newkirk, director, oil and gas management directorate.

Go ahead with the presentation for up to seven minutes.

Ms. Mimi Fortier (Director General, Northern Oil and Gas, Department of Indian Affairs and Northern Development): Thank you very much, Chair. Thank you very much for inviting us to be part of your meeting this morning.

Managing the exploration and development of Canada’s oil and gas resources on federal lands in the Northwest Territories, Nunavut, and northern offshore is a federal responsibility. The Minister of Indian Affairs and Northern Development is charged with this responsibility.

The department works in partnership with northern governments and aboriginal people to govern the allocation of crown lands to the private sector for oil and gas exploration and development; set, assess, and collect royalties; coordinate related scientific research to inform oil and gas management; and approve benefit plans before each oil and gas activity and development takes place.

Collaborating with other government departments and stakeholders, the northern oil and gas program ensures the existence of a transparent and robust regulatory regime characterized by the application of a market-based approach where the private sector explores and develops crown lands, and in return a fair return on development revenues accrues to the crown, and there are significant economic opportunities for communities.

Specifically for the Beaufort Sea, the department has been working with the Inuvialuit institutions and communities every step of the way since the signing of the Inuvialuit Final Agreement in 1984. The department's oil and gas program also involves activities associated with the preparedness for dealing with pending and emerging oil and gas development opportunities that are currently in the planning stages in the north. Among those activities has been the emergence of a coordination and promotion role for greater science in support of the knowledge base necessary for sound decision-making.

Between 2002 and 2010, INAC led the development and implementation of a science program in support of northern energy development. INAC is also actively involved in the environmental studies research fund mandated by the Canada Petroleum Resources Act, which finances environmental and social studies pertaining to exploration, development, and production activities on Canada's frontier lands through levies on oil and gas licences. The program is also involved in shaping research conducted through Natural Resources Canada's program of energy research and development, and specifically its frontier oil and gas portfolio.

● (0925)

[*Translation*]

Management responsibilities pursuant to the Canada Petroleum Resources Act rest with the Minister of Indian Affairs and Northern Development Canada, while the National Energy Board administers the Canada Oil and Gas Operations Act. Other legislation concerning land use and environmental protection are fundamental to the sustainable development of oil and gas resources in the north. These aspects are managed by independent boards set up pursuant to land claim agreements, and where these authorities are maintained, by the regional divisions of INAC in the Northwest Territories and Nunavut.

The Canadian Environmental Assessment Act applies offshore in the Beaufort, and an environmental assessment under this act is triggered when an application is made to the National Energy Board, as federal regulator, to undertake an offshore project. The minister reports to Parliament on the administration of oil and gas lands in the Northwest Territories, Nunavut, and the northern offshore on a yearly basis.

[*English*]

The issuance of licences to explore for oil and gas is governed by the Canada Petroleum Resources Act. The rights issuance cycle is composed of four stages. In the first phase, preliminary consultation with aboriginal organizations, communities, territorial governments, and expert authorities, particularly in renewable resources, are used to assess and support rights issuance within a particular region, identify exclusion zones, and confirm the terms and conditions of the licences.

In the second phase, a call for nominations allows industry to specify lands of interest for inclusion in a subsequent call for bids. The third formal phase is a call for bids, open for the statutory minimum of 120 days. And finally, of course, there is the issuance of an exploration licence following acceptance of a winning bid by the Minister of Indian Affairs and Northern Development.

Exploration rights issued pursuant to an open, competitive bidding process confer an exclusive right to apply to drill for petroleum and to apply for a production licence to produce discovered oil and gas. The successful bidder is expected to spend the dollar value of the proposed work during the first period of the licence and is required to drill one well during this first period to continue the licence into the second period. It should be noted, though, that the approval of these activities and specifically the drilling of a well is subject to National Energy Board regulatory approvals. The licence only confers the right, not the authorization to drill. The National Energy Board assesses drilling plans when they are filed for review, and drilling will not occur unless the National Energy Board is satisfied that drilling plans are safe for workers and the environment.

Calls for nominations have been held annually in the Beaufort-Mackenzie region since 1989, with the support of the Inuvialuit and informed by their concerns. Emphasis is placed on the protection of the environmentally or culturally sensitive areas in the decision-making process. To this end, Indian and Northern Affairs Canada relies upon scientific and traditional knowledge to make informed decisions regarding rights issuance.

The ecosystem of the Beaufort Sea is well studied. One consequence of the long history of oil and gas exploration extending over several decades has been the growth of scientific knowledge about the Beaufort Sea ecosystem, geology, and physical operating environment. Programs such as the Beaufort Sea project of the 1970s, the Beaufort environmental monitoring project of the 1980s, and the recent research program from 2002 to 2010 and currently researched under ArcticNet all provide a scientific foundation upon which decision-making is undertaken to issue rights.

A pragmatic understanding has also developed in local communities based on direct experience of oil and gas activities fused with traditional knowledge. This experience and the research initiatives have yielded critical information used in INAC's day-to-day activities. One consequence has been that large areas of the Beaufort Sea have been excluded from nomination, including all areas proposed as marine protected areas and all nearshore waters along the Yukon coast.

To synthesize Beaufort Sea information, INAC's northern oil and gas program launched an online information system called the petroleum and environmental management tool. This web-based tool integrates key information on environmental and socio-economic factors to help make informed decisions regarding oil and gas management.

● (0930)

[*Translation*]

Current interest in the north dates from the mid-1990s, and renewed interest in the offshore Beaufort sea from 1999. Recently, this interest extended to deeper-water areas of the outer continental shelf in the central Beaufort sea.

In 2007 and 2008, the Minister of Indian and Northern Affairs issued rights extending to deeper-water areas of the Beaufort sea: a total of six parcels are currently subject to a total work commitment of close to $2 billion.

[*English*]

The Chair: Ms. Fortier, you're over your seven minutes. Everyone has your presentation in front of them. If you could, please wrap it up with a very quick summary so we can get on to the next presentation. I want to ensure we have ample time for questions, and there are five groups to question.

Ms. Mimi Fortier: In closing, I want to reassure the members that oil and gas management decisions are considered very carefully, and a significant level of assessment and consultation occur prior to any recommendation being provided to the minister regarding rights issuance.

We acknowledge that the events of the Gulf of Mexico are tragic, and they will have implications for Canada's Arctic. The lessons learned will help shape the oil and gas program, but it is too early to speculate on the impacts. INAC is working closely with these other federal departments represented here today, as well as aboriginal communities and stakeholders, to incorporate the learnings from the event unfolding in the United States.

Thank you.

The Chair: Thank you very much, Ms. Fortier and Mr. Newkirk.

We will have a final presentation now from the Department of Natural Resources. We have Mark Corey, assistant deputy minister, energy sector; and Eric Landry, director of the frontier lands management division, petroleum resources branch.

Please go ahead with a presentation up to seven minutes.

Mr. Mark Corey (Assistant Deputy Minister, Energy Sector, Department of Natural Resources): Thank you, Mr. Chair.

I'm just going to go quickly through this deck. This is the same deck that we presented to the Senate standing committee last Tuesday night. We just wanted to provide them and you with a brief overview. You may know all of these things already, but we thought that providing an overview of the legal and regulatory frame would be useful. This deck provides a summary of the legislative framework, safety and liability provisions, the environmental assessment processes, and a lot of our emergency response plans.

If you go to slide 3, two key acts govern petroleum activity on Canada's frontier lands. First is the Canada Petroleum Resources Act, the CPRA, which deals primarily with rights issuance and royalties. Under the CPRA the Minister of Northern Affairs, in northern Canada, and the Minister of Natural Resources, in southern Canada, may issue expiration licences, significant discovery licences, and production licences. The second piece of legislation is the Canada Oil and Gas Operations Act, CAGOA. It promotes safety and the protection of the environment. It's basically the legislation that's used for governing the safety and protection of the environment and the operations. Those are the two key pieces of legislation that underline the federal system.

If you go to slide 4, you will see that in Newfoundland and Labrador and in Nova Scotia, we set aside in the 1980s the issue of jurisdiction in favour of joint management regimes. We set up boards in both of those areas. The rights and resources are administered and managed by the offshore petroleum resource boards, which report both to our minister and the respective provincial ministers. Certain decisions, such as issuing a licence and other things, require joint ministerial approval and are called fundamental decisions. So we have a separate system set up, administered jointly with the provinces, in these two areas; but again, the principles go back to those two key pieces of legislation.

In the non-accord areas, the regulator is the National Energy Board. It is responsible for administering CAGOA, meaning that it regulates petroleum activity in all of Canada's frontier areas that are subject to the act, including Canada's Arctic offshore in the non-accord areas. The NEB is the lead agency in the event of an emergency, for example, in the Arctic, or any other frontier lands subject to CAGOA that are outside of the accord areas.

In those areas NRCan is responsible, as is INAC in the north, for collecting, managing, and administering royalties and land tenure management. As we mentioned, the NEB is the regulator in these areas.

[*Translation*]

You can now turn to slide 6.

Before carrying out work or activities related to oil operations, operators must obtain appropriate authorizations and approvals from the appropriate regulatory board. In order to obtain an authorization, an operator must ensure that it has satisfied all legal and regulatory requirements concerning the work or activity. The authorization can include the approval of certain documents, plans or other issues, as specified in regulatory requirements, or the approval of specific activities carried out pursuant to an authorization.

We can now move on to the next slide.

● (0935)

[*English*]

Here we are underlining that we have two different areas, the accord and non-accord areas.

Prior to an area for exploration in the north being opened up, as Mimi mentioned, aboriginal groups are notified and provided the opportunity to identify areas of environmental sensitivity and those of special interest for cultural reasons. The dialogue explores the concerns that may be raised about oil and gas activities initiated by the issuance of licences. In the Atlantic areas, prior to an area being opened up the boards will carry out what's called a strategic environmental assessment, an SEA. These perform largely the same function: they help to identify environmental issues at early stages, which can assist the boards in determining whether or not to open an area to exploration.

The next slide is there just to underline that environmental assessments are then required prior to any drilling. They are required at various other stages. Project-specific environmental assessments are required prior to the regulatory boards' authorization of offshore petroleum-related work or activities, and every project requires an environmental assessment.

Slide 9 just outlines the ladder of responsibility. The primary responsibility is with the operator. As René mentioned, the operator is responsible for preventing, mitigating, and managing oil spills, and they are liable for the costs of cleaning up a spill and paying for losses or damages. An operator is legally required to demonstrate a certain amount of financial capability before undertaking activity, which is referred to as financial activity. It's the minimum required by the boards. It can vary, depending on the project. The general practice has been overall responsibility of about $350 million in tiers. The operators have unlimited liability if they are sued by others and are found negligent. So these are basic minimums the boards insist on. The financial responsibility is not a limit or a cap on the operator's liability, which is unlimited. Again, the liability provisions are basically just to establish certain minimums.

Slide 10 outlines that emergency management systems are in place at various levels. At the operational level, operators must submit a detailed emergency response and an oil spill response plan as part of their application to drill a well. Operators must be members of a Transport Canada certified response organization. Membership in these organizations allows caches of spill-response equipment and expertise and manpower to be brought in to assist. The regulator's role can range from monitoring activities to the authority, in a very extreme case, to actually stepping in and taking over if they feel a spill is not being properly managed.

[*Translation*]

We now turn to slide 9. The Department of Natural Resources manages 10 emergency response plans, each of which is adapted to a specific type of incident. The department conducts regular simulation exercises, which are intended to assess various emergency scenarios. The latest offshore emergency simulation exercise was conducted by our department on March 25, 2010, together with the Canada - Newfoundland-and-Labrador offshore petroleum board. All that to say that we have plans in place and are conducting exercises quite regularly.

Slide 12 gives you an overview of the rules and responsibilities of various federal agencies in order to respond to oil spills. As you have seen, four of these agencies are here today in order to give you an overview of our responsibilities.

[*English*]

The last slide says that the Government of Canada is watching events in the Gulf of Mexico for lessons learned. We've taken a number of steps. On May 11 the NEB announced it would be conducting a comprehensive review of Arctic safety. On May 12 the Province of Newfoundland and Labrador announced an independent assessment of offshore spill prevention and response. On May 13 a joint decision was issued between the Department of Natural Resources and Nova Scotia extending the moratorium on oil and gas exploration in the Georges Bank area. On May 20 the Canada-Newfoundland and Labrador Offshore Petroleum Board announced a number of additional measures on Chevron's drilling project in the Orphan Basin. On June 10 the NEB announced its preliminary scope for the review it's now undertaking of the activities it regulates in the north.

The bottom line is that we have a strong regulatory system in place. We have independent regulators who are very experienced. We've taken a number of steps since the incidents in the gulf to further heighten our vigilance on it, and we will be watching very closely, because we know there are lessons we can and will learn from that tragedy.

● (0940)

The Chair: Thank you very much, Mr. Corey and Mr. Landry, for being here.

Thank you all for your presentations. It's very helpful information for the committee. And thank you for the role you play in regulating and accommodating the process of offshore drilling, training, and preparing for cleanup in case that should be necessary.

We'll start the questioning with Mr. Regan, for up to seven minutes. Go ahead, please.

Hon. Geoff Regan (Halifax West, Lib.): Mr. Chairman, on a point of order, I have two quick points.

First of all, I notice we have officials from NRCan here today, and that's good, but I'd like to know if that means the minister will not be appearing. He was invited. I note he has appeared at committees where he wasn't invited, and now he's not appearing at this meeting where he is invited. I wonder if this means we have to invite his senior policy advisory, Bruce Winchester, in order to get him to appear. Is he in fact going to come, or not? That's what I'd like to know first.

On the second point, Mr. Bowden mentioned he wasn't called by BP until last week. Obviously that's alarming and disconcerting. We have also asked certain oil companies, like Chevron, to come before us. As a point of order, I'd like to know if they're coming. My understanding is that Chevron has refused. Have any other oil companies agreed to come?

First, the minister has refused to come, I gather, and secondly, are any of the oil companies coming?

The Chair: In terms of the minister, I'll let Mr. Anderson answer that.

In terms of the other witnesses, I don't believe we've had another oil company. We had BP in the first round and they had a representative here. I don't think we've had our invitations accepted by any other oil company

Mr. Anderson, do you know about the minister?

Of course on short notice it's always difficult to get a minister. You would know that. It was like that when you were there.

Go ahead.

Mr. David Anderson (Cypress Hills—Grasslands, CPC): Mr. Chair, obviously the minister is a busy guy, and on short notice... As you said, the invitation has been extended. He takes all these invitations seriously and he has been very happy to provide senior officials to the committee for information. We're certainly working with the committee on this.

The Chair: Thank you very much, Mr. Anderson.

So we have the answers. If you have any more questions about the other witnesses who have been invited—we have invited the witnesses in the order they have appeared on the priority list from each party—you can discuss that with the clerk if you'd like, or with me.

Hon. Geoff Regan: Thank you, Mr. Chairman. I'll go on, but I will note—

The Chair: Go ahead with the questioning. We will start the clock now.

Hon. Geoff Regan: I'll note that clearly the minister was able to find the time to attend a committee where he wasn't actually invited, so it's interesting that he couldn't make it here. However, I know he's very busy.

Let me ask if any of the witnesses today can provide us with insight into what caused the Deepwater Horizon explosion in the Gulf of Mexico that led to this enormous disaster. Do you know what actually caused this?

The Chair: Does anyone want to tackle that?

Yes, go ahead.

Mr. Ron Bowden: We in the industry who are supplying BP and others in their response have the same question. And I think all of us know that probably we have access to the same information. It was very censored, especially in the beginning. We know the American government had requested, and then ordered, that more information be released. So it's very censored. We don't really know why—and I'm sure the reports will come out later. But I don't think there is any information that I would have, or any of my colleagues would have, that we are in possession of. And I think that's the reality we've all discussed in the industry.

Hon. Geoff Regan: Mr. Bowden, have you had any calls in Canada since this started, from any of the departments in relation to preparing for the possibility of a major spill here?

Mr. Ron Bowden: We have our business as usual, so we do have calls coming from our domestic customers, but not in relation to the situation in the gulf.

When I mentioned earlier that we were contacted last week by BP, that was to supply them with the equipment that we manufacture and supply in our services. Initially we were contacted by a horde of service companies in the United States, which were told to go out and accumulate, acquire, and procure equipment. Then they realized that we were specialized in response activity and equipment. We design and manufacture basically skimmers, from very small to 30,000-pound units we put on offshore ships.

Hon. Geoff Regan: I'm sorry, Mr. Bowden, but I only have a very few minutes and I've got a thousand more questions than I have time for. So I'm sorry to move on, but what I was looking for was on the narrow question of whether you had been called—and you indicated that you haven't been—in relation to any response to what's happened in the gulf, or a major spill here.

● (0945)

Mr. Ron Bowden: We've been discussing with the coast guard for—

Hon. Geoff Regan: You have ongoing—

Mr. Ron Bowden: —what kind of cooperation we can actually send down to the gulf.

Hon. Geoff Regan: Thank you.

So let me ask this of the officials. None of the officials here could answer the question of what caused the Deepwater Horizon explosion and disaster, so can you say with 100% certainty that a blowout will not happen in Canadian waters?

The Chair: Mr. Corey, go ahead.

Mr. Mark Corey: Thank you, Mr. Chair.

If I could come back to the first question, I think the definitive answer will come with the report of the national commission on the BP Deepwater Horizon oil spill and offshore drilling, which was commissioned on May 22 by President Obama. It's being chaired by Senator Bob Graham and the former EPA adminstrator, William Reilly. We expect that report will be issued in about six months.

We've seen a lot of reports in the media, but they seem to change from time to time. What we need is the definitive report before we actually decide what the actual cause was and what the lessons learned will be. But we are watching very carefully as it unfolds.

Hon. Geoff Regan: How many extremely large spills of 150,000 barrels or greater have there been before the Deepwater Horizon in the history of offshore drilling, and were there lessons learned from each one?

The Chair: Mr. Corey, when you find that answer you can give it.

Mr. Mark Corey: I do have it here, actually. We've had one major oil spill in Canada. It was in November 2004. There was an oil spill at the Terra Nova site in Newfoundland and Labrador. Approximately 1,000 barrels of oil were spilled. It was due to a mechanical failure in an oil and water separator and a faulty chemical injection system. Production was halted for 21 days. There was an investigation and a cleanup.

That's the only major oil spill we've had to date in Canada in the offshore.

Hon. Geoff Regan: Okay. I was looking internationally, but that will do for now.

Monsieur Grenier, it's nice to see you again. Let me ask you, how many spills do you deal with on an annual basis in Canada? Approximately how many spills are there a year in Canada?

D/Commr René Grenier: I think we have over 1,500 spills that we respond to yearly. They're not all major. Actually, they're—

Hon. Geoff Regan: Can you give me an idea of how much oil is spilled on average in each case, and how many charges are laid annually as a result?

D/Commr René Grenier: That would be a difficult one to....

Ms. Chantal Guenette (Manager, Environmental Response, Canadian Coast Guard, Department of Fisheries and Oceans): Most of these spills are probably in the order of litres rather than tonnes, and many are from small vessels.

In terms of the charges laid, the coast guard is not the regulatory agency that lays charges with respect to spilled oil.

Hon. Geoff Regan: Mr. Corey, I'm glad that you're raising your hand, because I'd like to know, how strict would you say your regulatory regime is?

Mr. Mark Corey: Our regulatory regime is among the best in the world. It's very strict. We have the three boards. They're independent, arm's-length.

And actually, I think we could provide more information on smaller spills.

Hon. Geoff Regan: Okay, but I guess the point I'm making here is that in spite of that, we have 1,500 small spills a year, and you're telling me we have a strict regulatory regime.

Mr. Mark Corey: We do.

Hon. Geoff Regan: Why don't you reinforce that just to explain how we still have so many spills?

Mr. Eric Landry (Director, Frontier Lands Management Division, Petroleum Resources Branch, Department of Natural Resources): In terms of the number of spills, under the legislation each spill needs to be reported to the regulators, the three boards: the National Energy Board and the two offshore boards. These spills have to be tracked, and the offshore boards could provide the details in terms of the number of spills and the frequency of spills as they pertain to oil and gas operations.

Hon. Geoff Regan: How's my time, Mr. Chairman?

The Chair: You have a minute, Mr. Regan.

Hon. Geoff Regan: Good.

Mr. Corey, in your view, how prepared was the U.S. for the disaster in the gulf, and does the fact that we're now in the 58th day of this disaster cause you concern?

Secondly, what major steps have been taken in the last two months as a result of what happened in the gulf? We've seen your deck, but I'm talking about actual steps, as opposed to study or review or reconsideration of things.

Mr. Mark Corey: Mr. Chair, we would be hesitant, really, to comment on the situation in the U.S. right now until we know more about it and see the study.

In terms of steps, though, as I mentioned, there are a number of specific things. On May 11 the NEB announced that they were starting a comprehensive review of Arctic safety and environmental offshore drilling requirements; on May 12 Newfoundland and Labrador appointed Captain Mark Turner to do an independent assessment of offshore oil spill prevention and response in Newfoundland and Labrador; on May 13 NRCan and the Nova Scotia Department of Energy, the two ministers, confirmed that the moratorium on oil and gas exploration on Georges Bank was extended—

● (0950)

Hon. Geoff Regan: Okay, I've read that. I appreciate that very much.

The point I'm looking for is whether an action or a change in practice and procedure has been taken.

Mr. Mark Corey: I think you could say there's a fairly profound review going on right now so that we can understand what happened in the gulf, to make sure that we learn from it and that we basically make our system even stronger.

The Chair: Thank you, Mr. Regan.

We'll go now to Madame Brunelle for up to seven minutes.

[*Translation*]

Ms. Paule Brunelle (Trois-Rivières, BQ): Good morning, ladies and gentlemen. I would like to thank you for being here.

Mr. Brown, you talked lot about research and development. It seems you are stepping up your activities in trying to find solutions following the ongoing disaster in the Gulf of Mexico.

Furthermore, I would like to briefly touch upon the regulatory side of things. According to information that I have read, it would seem that there has been a change to the drilling regulations. In-depth studies are no longer required. You can tell me whether that is true or not.

Previous witnesses have compared the offshore drilling regulatory requirements in Canada, the United States, Greenland and Norway. Canada is the only country that does not regulate the opening of new oil drilling areas. There is no documented environmental assessment or analysis.

Do you find that normal? Do you think those standards and regulations should be reviewed in light of what is going on in the Gulf of Mexico?

[*English*]

Dr. Carl Brown: Thank you for your question.

As a research manager, the regulations related to offshore drilling are outside my area of expertise, so that's not something I can comment on.

[*Translation*]

Ms. Paule Brunelle: Why can you not comment on that? Is the National Energy Board the sole agency responsible for the environmental assessment of drill sites?

[*English*]

The Chair: Actually, Mr. Corey was indicating that he would like to answer that question.

[*Translation*]

Mr. Mark Corey: Mr. Landry can talk about responsibilities and environmental assessments.

Mr. Eric Landry: I will give you a brief description of how things are done in areas where there are agreements with the provinces. I would ask my colleague from Indian Affairs to describe the process in the north.

In his presentation, Mr. Corey indicated that the offshore boards will conduct strategic environmental assessments before rights are issued. Therefore, environmental assessments are done prior to the issuing of exploration licences. The process is somewhat different in the north. I would ask my colleague to respond.

Ms. Mimi Fortier: A lot of research and experiments are conducted in the Beaufort Sea.

I will answer in English, I apologize.

[*English*]

We synthesize all of that information for our consultations and assessments with Environment Canada, with the Department of Fisheries and Oceans, with renewable resource departments of the territorial governments, and by and large there are a lot of institutions with Inuvialuit that look at joint fisheries and joint responses to oil and gas activities. These are synthesized on our web-based tool, the petroleum environmental management tool that describes the sensitivities of the ecosystem, and we're adding into that the socio-economic indicators as well.

The Inuvialuit have been extremely involved and very engaged in informing themselves on oil and gas activity for decades. They themselves provide us with a lot of the basis for the terms and conditions in which we issue oil and gas rights.

[*Translation*]

Ms. Paule Brunelle: I am surprised that no one can talk to me about the fact that today's environmental standards are weaker than those in 2005. I will have to do some more research.

Ms. Fortier, during a previous hearing with a BP company official, I asked the question... The company had asked the government to change the standards so that it not be required to drill relief wells. It had submitted that request to the National Energy Board. I asked the BP officials whether they were maintaining their request, given the current disaster. Needless to say, I did not get an answer to my question.

However, there is one thing that troubled me. BP insisted on saying that it was difficult for the company to drill relief wells in the north.

As a northern representative, what do you think of the company's statement? Is it mandatory in Canada for companies to drill relief wells as part of offshore projects? What do you think about BPs excuses? Despite the disaster, the committee seems to want to weaken regulations.

● (0955)

Ms. Mimi Fortier: The National Energy Board requires that plans be submitted.

[*English*]

These contingency plans are supposed to address all of the response measures in case of an oil spill. Traditionally, in the Beaufort we have had a requirement for a relief well. This is a policy of the Government of Canada. The National Energy Board has assured recently in a letter to the media that they will look for plans for a relief well in those contingency plans.

We see a variety of situations in the Beaufort Sea. There is a variety of drilling situations. In the landfast ice, for instance, where we see most of the drilling, it's a shallow sea, and there is a long period of landfast ice, where drilling takes place on ice. It is quite easy to build up an ice pad and put a second relief well rig on that ice pad adjoining the original drilling platform.

What BP and some of the current interest holders are looking at now is drilling in deeper waters. We've seen drilling in up to 200 metres of water in the Beaufort Sea, historically. We may be seeing some of these licences in deeper water depths. What they're thinking of is purpose-built ships that are ice-class ships designed specifically for the Canadian Beaufort Sea.

What we're also looking at is having technology that is a more rapid response to contain a spill in the worst-case scenario than having to drill a second well into the lower horizons to contain the pressures that would mount from a blowout.

[*Translation*]

Ms. Paule Brunelle: Thank you.

Mr. Corey, current regulations limit compensation as a result of corporate liability in the event of an oil spill to $40 million. In what year did the government set that amount, which seems very low?

My colleague asked a question about costs—we shall see. A maximum of $40 million in our view seems too little. Are you considering a review of that regulation in order to better adapt it to reality?

[*English*]

The Chair: Mr. Landry.

[*Translation*]

Mr. Eric Landry: The amounts were set in the 1980s.

I will talk about the offshore boards and then ask my colleague from the Department of Indian Affairs and Northern Development to describe the process in the north.

Financial responsibility is set out in the guidelines established by the offshore boards. Those are joint guidelines that were set in the 1990s. The amount of financial responsibility or liability is set at approximately $350 million, in the case of the offshore boards. That would apply to both Newfoundland and Labrador and Nova Scotia.

In the case of the National Energy Board, I will ask my colleague to talk about the amount.

Ms. Mimi Fortier: There are three statutes that affect the north, particularly the Beaufort Sea. There is the Canada Oil and Gas Operations Act, which sets liability at $40 million. There is also the Arctic Waters Pollution Prevention Act , which imposes an additional $40 million in compensation. The department manages those two regimes through the National Energy Board. In addition to that,

[*English*]

the National Energy Board requires the operator to show financial capability for assuming the severe liability. And on a third regime, the Inuvialuit Final Agreement also provides for an absolute and limitless liability. They turn to the National Energy Board to evaluate the worst-case scenario, along with the oil company's projections of the oil and gas reservoirs that they may encounter in the drilling. Again, they have to show financial capability to meet that liability of the worst-case scenario. Recently, in the Beaufort Sea, the last well had to show its financial capability to meet a liability up to $1 billion.

The Chair: Thank you very much, Madame Brunelle.

I will be giving your party a little less time in the second round. We went well over time, but those are questions that have been asked an awful lot, and I think the committee wanted to hear the answers.

We'll go now to Mr. Cullen, for up to seven minutes.

● (1000)

Mr. Nathan Cullen (Skeena—Bulkley Valley, NDP): Thank you, Mr. Chair.

Thank you, everyone, for being here.

Monsieur Grenier, how many kilometres of boom does Canada currently have in stock?

D/Commr René Grenier: I'm just going to check my notes.

The Canadian Coast Guard has over 80 equipment depots across the country—

Mr. Nathan Cullen: I know that—just kilometres of boom.

D/Commr René Grenier: —and we have 6,385 metres of offshore boom, of which we lent 3,000 metres. That's only the offshore boom. We also have all kinds of coastal booms, up to 85,645 metres of boom.

Mr. Nathan Cullen: So about 10 kilometres, give or take, maybe 11 kilometres' worth of boom, all said. So the U.S. has—

D/Commr René Grenier: No, more than that, 90-some kilometres.

Mr. Nathan Cullen: Oh, excuse me, 90. So 90-some kilometres. The U.S. has deployed more than 2,000 kilometres of boom so far, with another 700 kilometres of boom on hand.

Our coast is ten times the length of the U.S. coast. Why do we have so little boom capacity?

D/Commr René Grenier: Well, we identify risks, and we have national, regional, and area plans, and those outline the need for response in the country.

Mr. Nathan Cullen: I understand that you have risk plans, but what concerns me... We've given away a certain portion, but the amount of stock that we have is significantly less than that in the U. S., even though our coastline is significantly longer.

Mr. Brown, has anyone developed a way to either stop or clean up an oil spill in arctic conditions?

Dr. Carl Brown: There are several techniques for cleaning up oil. Some of those will work in the Arctic, some of them are not as effective.

Mr. Nathan Cullen: Can we get oil out of ice? That has been a question this committee has been grappling with.

D/Commr René Grenier: Can you get oil out of ice?

Mr. Nathan Cullen: If we have cleanup techniques for an arctic condition, one would assume that we would be able to extract oil from ice.

Dr. Carl Brown: Right. Certainly things you would use on the open water may not work as efficiently. Skimmers, for example, will plug once you get a certain percentage of oil in the water. In situ burning is a technique that works very well. It works well in arctic conditions, where the cold temperatures will afford you a little more time to use that technique.

Mr. Nathan Cullen: But if the oil were under the ice, how would you burn it under ice?

Dr. Carl Brown: Right. I'm sorry, I'm talking about in the open—

Mr. Nathan Cullen: Yes, I'm talking about ice-covered ocean. Is there any way to get oil out of that situation?

Dr. Carl Brown: The oil itself will naturally come up as the seasons change. It will move through the—

Mr. Nathan Cullen: So you wait for the ice to sort of... That would take some time, I'm assuming. You wouldn't be able to do it the same season, for example.

Dr. Carl Brown: It would be difficult in fast ice, yes.

Mr. Nathan Cullen: That's interesting.

Madam Fortier, was this taken into consideration when you did your environmental screenings before leasing out to British Petroleum?

Ms. Mimi Fortier: Oh, yes. There has been extensive knowledge gained. We've looked at decades of concerns about that kind of spill cleanup, and a lot of the research and a lot of the discourse, including the environmental studies research funds, have focused on oil spill response in ice waters.

Mr. Nathan Cullen: Specifically to the question, can you get oil out of ice? If there's an oil leak under an Arctic drill in winter conditions, other than waiting for the oil to work its way up through the ice, as Mr. Brown said, how would one imagine cleaning that up?

Ms. Mimi Fortier: I'm not the expert on the cleanup, but in terms of the public debate and the public concern, it's certainly acknowledged. Definitely look to the companies, the operators, to develop a spill response. Also, internationally—

Mr. Nathan Cullen: But you've issued leases into these.

The Chair: Mr. Cullen, please give the witness enough time to answer the question a little more fully.

Go ahead, Ms. Fortier.

Ms. Mimi Fortier: We also leverage a lot of international studies. Very shortly, there is going to be an inter-agency report coming out of Norway. There's continual public attention in trying to find means to clean up these spills.

● (1005)

Mr. Nathan Cullen: I'm looking at your map. The issued licences that you've given out in the Beaufort are in blue. The Department of Fisheries and Oceans has identified ecologically significant areas, and those are in pink. For the committee members, these overlap one another. In the U.S. they require a four-volume regional environmental impact statement before any leases are tenured. What do we require before you issue a lease in terms of documentation? What do the regulations require?

Mr. Kerry Newkirk (Director, Oil and Gas Management Directorate, Department of Indian Affairs and Northern Development): To first start with the map, you refer to the overlap of the areas of ecologically and biologically sensitive areas that the Department of Fisheries and Oceans has generated. I want to clarify that those areas are not necessarily inconsistent with oil and gas use in those areas. To have identified an area doesn't necessarily mean that what you're trying to protect within it precludes oil and gas activity.

Mr. Nathan Cullen: What is required? Our understanding is that there's a two-page document required for a strategic environmental assessment prior to you folks issuing a lease. Is that correct?

Mr. Kerry Newkirk: I wouldn't have characterized it like that. In the Beaufort, as Mimi has gone over, there are several decades of experience. If we were to look at a new area there would be a more exhaustive study. Every single year the department goes up and talks to communities and talks to other departments, including Environment Canada, the Department of Fisheries and Oceans, and others. We talk to the experts. We do have a fairly sophisticated GIS-based tool, which generates maps such as that and even in more detail, identifying areas where there are go and no-go zones for oil, areas of higher risk aversion, where you'd want to limit activities.

Mr. Nathan Cullen: You're misunderstanding my question, maybe.

Can you provide us with what British Petroleum provided to INAC before getting its lease? It was $1.2 billion, correct? It was the largest in Arctic history.

Mr. Kerry Newkirk: Yes.

That lease, though... You're bringing together two processes: the decision on whether it's appropriate to open an area to oil and gas, and what they actually provide us in their bid. What they provide in their bid is a guarantee to spend a certain amount of money over a certain period of time. The decisions with respect to whether or not it's appropriate are taken well upstream of that decision and include an exhaustive and annual process. To characterize that as two pages is a bit limiting. It's actually quite a bit more substantive a process.

Mr. Nathan Cullen: When—

The Chair: Mr. Cullen, your time is up.

Thank you, Mr. Newkirk, for your answers.

Mr. Kerry Newkirk: You're welcome.

The Chair: We go to Mr. Anderson now for up to seven minutes.

Mr. David Anderson: Thank you, Mr. Chair.

One of the things we should note is that we've been doing offshore drilling for 40 years in this country and around the world. Certainly these discussions and questions have been asked several times before. I think the legislation and regulations are actually a response to what's been asked in the past.

I'm going to ask a general question, and probably Mr. Corey could answer this best. There's some suggestion and there has been a committee here that the reason the problems happen in the Gulf of Mexico is that BP was cutting safety corners. Given the fact that we've had this long history—you were saying in 40 years of offshore drilling our largest spill has been 1,000 barrels, which was contained—is there a need right now for a radical change of direction, a radical change in regulation, in order to continue to drill safely in Canada?

Mr. Mark Corey: Thank you for the question.

I think we would say that we have a very sound regulatory system in Canada. We have three independent arm's-length regulators. Their primary responsibility is the protection of safety of the people working in the offshore, the protection of the environment, and ensuring that operations are run appropriately. Having said that, we are watching the events in the gulf as they unfold. We've been working with the provinces. Other departments have taken a number of steps to heighten our vigilance to make sure we are learning the lessons.

The last thing is we are watching what's going to happen in the U. S. We're watching for the results of their inquiry. We will learn those lessons and we will make what we consider to be a strong system stronger as a result of that.

Mr. David Anderson: I'd like to talk a little bit about Canada's role. We've heard testimony here before. We've been watching what's happening in the Gulf of Mexico. We've also offered some aid to the Gulf of Mexico.

Mr. Brown, I'm just wondering what Environment Canada has done. Have you participated at all in the Deepwater Horizon challenges down there? Have you sent folks? What's your role there? Do you have one?

● (1010)

Dr. Carl Brown: We've played a fairly substantial role, some of it in the background. Staff from my section were first contacted by science advisers from the National Oceanic and Atmospheric Administration on the morning of April 21, so the day after the incident. For the past few weeks, we've been in discussions with scientific advisers from NOAA, from the U.S. Department of Homeland Security, the U.S. Environmental Protection Agency, and the U.S. Coast Guard, and we've been providing information on the fate and behaviour of the oil that spilled. Environment Canada has analyzed forensically a number of Gulf of Mexico oils over the past number of years through collaborations with U.S. Minerals Management Service, part of the Department of the Interior. We've also measured the effectiveness of chemical dispersants on those oils, so we provided some of that information. We also discussed the appropriateness of some of the countermeasures that could be used, especially in situ burning efficiency and the air emissions. Canada has a lot of experience in this from the Newfoundland offshore burn experiments that I mentioned earlier.

We also have had an inquiry whether our oil spill lab can do some analysis of oil samples in the future, if need be. Environment Canada sent seven staff from the marine aerial reconnaissance team—MART. These are people with the Canadian Ice Service, in partnership with Transport Canada's national aerial surveillance program—NASP. These specialists are able to observe and visually detect and validate marine oil so that cleanup and enforcement activities can take place.

Mr. David Anderson: Thank you. I'll cut you off there.

I do want to take a minute to ask Mr. Bowden this. Can you talk a little bit about the different technologies that are being used in the gulf? I think one of the most tragic things is watching the oil come up onto the shoreline. We've been told that some of the dispersants work and some of them don't seem to. You talk about your company producing skimmers. We've heard about burning as a way of dealing with oil as well. Can you talk about some of the different technologies and how they seem to be working in the gulf?

Mr. Ron Bowden: As I mentioned, the information was quite difficult to obtain from the gulf. The technologies that exist today have been improved through time. Basically, we want to recover the oil and not the water, for one. Secondly, introducing dispersants to oil spills is controversial, because in fact we're adding chemicals, for one. We're adding another product, and this product reacts with the oil, making it less adhesive to recovery operations. So it can hamper recovery operations if there's too much, depending upon the quality of the oil, etc. There are many, many factors.

I think Mr. Cullen had a very good question earlier with respect to the Arctic recovery versus non-Arctic. There does not exist today technology that can recover oil from ice or under ice, in snow. This is very important to think about. If we have a spill like the gulf spill, we're skimming oil from water, or we'll have to separate the oil from the water. It's already an emulsion. That's also very difficult. There are many different environments. The technology... There are different types of machines. In the gulf they're having difficulty. In fact, the *Exxon Valdez*, for example, was a ship that released oil in a bay. The oil in the gulf is being released from one mile below the surface, so by the time it reaches the surface, it's already dispersed. So imagine this, for example, in the Arctic. You can't lay boom around ice; you can't recover oil from the surface because it's hampered by the ice or under the ice. So it's quite a different scenario. There is really no solution or method today that we're aware of that can actually recover oil from the Arctic.

The gulf spill is unique in a way. It's not a rupture that's containable. By the time it got to the surface there was such a volume that it was beyond containment. This is why we see this 40% of the area of the gulf that is already closed for fishing. The surface area is massive. There are many different aspects.

The Chair: Thank you, Mr. Anderson.

We go now to the second round.

From the Liberal Party, we have Mr. Tonks, for up to five minutes.

● (1015)

Mr. Alan Tonks (York South—Weston, Lib.): Thank you, Mr. Chairman, and thank you to all of you for being here.

Mr. Bowden, I'm impressed with your common sense approach: make good choices. You talk about turning off the faucet, and if you can't turn off the faucet, you go to the main. In the case of the Gulf, the main is the natural geological fissure through which the oil is going, and they can't stop it. So there's no main to turn off, except by asking Mother Nature to cooperate. It ain't happening. It's dramatically pointing out that we have to look at our legislation.

My question out of that is probably to Mr. Corey. Mr. Corey, you indicated on your slide that the National Energy Board is conducting a comprehensive review and in the meantime has cancelled its written hearing on the same-season relief well capability. When did the National Energy Board become aware that a relief well would be a very real alternative—and not just a same-season relief well, but in lieu of what's happening, perhaps a regime change that would require, in deep-sea conditions, a relief well at the same time as the main bore would be undertaken? When did the board embark on that kind of question?

Mr. Mark Corey: Mr. Chair, I could start and then I would probably ask Indian and Northern Affairs to fill it in.

In terms of the basic principles, the National Energy Board and the other boards have always required that companies drilling in the offshore have contingency plans in place to drill a relief well. In the Arctic, because of its remoteness, the requirement was that they had to demonstrate that they could do a same-season relief well, because the drilling season is much shorter in the Arctic than it is elsewhere. They were asked to review that.

In view of what's happened in the gulf, they've cancelled their review of that; the requirement is still in place. They're actually launching a much broader review, for which on Thursday, June 10—last week—they announced the scoping exercise, in which they have said what things they're looking into. They're doing a fundamental review of it now.

Mr. Alan Tonks: That's helpful. I need to ask just one more question, because Mr. Bains has questions.

In the meantime, you said , if you look at the same page, there's a moratorium on all gas activities on the Georges Bank. That's on the one hand. In the next stage, there have been several additional measures—not a moratorium, but several additional measures—with respect to Orphan Basin.

In view of the tragic circumstances and the emergent reality that has come out of the gulf, could we be assured that it wouldn't be just different or additional measures, but should there not be a moratorium throughout all of the basins?

And who is responsible to give that direction in cooperation with the offshore agencies that have been mentioned at various times?

Mr. Mark Corey: Mr. Chair, to deal with the issue in the accord area specifically with Newfoundland and Labrador, the oversight is provided by the Canada-Newfoundland and Labrador Offshore Petroleum Board. They issue the licence; they're the ones who make decisions.

We would underline that on May 20 they announced a number of, I would say, very significant steps—greatly heightened vigilance on that Chevron one. They established a team to provide regulatory oversight. They meet with the board's oversight team regularly. In fact, they are required to provide the board's well operations engineer with copies of field reports on things like the blowout preventer stack, the function test of the acoustic control system, the function of the remotely operated vehicle intervention. These are all key things to make sure that a blowout does not occur.

They're monitoring closely. They're also meeting every three weeks with the group. They have staff who are actually on board the rig. I would say the biggest measure is that prior to penetrating any of the drilling targets—those are areas that are the most prospective, where they think they might actually encounter oil or gas—they have a time out. They sit down with the board and go over it again to make sure that everything is in place and is running and that they are prepared. This is an unusual step; it has never been taken before.

They also make sure that representatives of the offshore board are on the Stena Carron at all the key points—when there are cementing operations, and for the casings, and things like that.

They've greatly heightened their vigilance on this project to make sure that all of the safety precautions are rigorously observed.

● (1020)

Mr. Alan Tonks: But the bottom line in those additional measures is that there hasn't been a direction, nor has there been any department taking the initiative to say that even same-season capability has to be there. Isn't that right?

Mr. Mark Corey: Actually, Mr. Chair, one of the things that is in this plan is that the company has had to demonstrate that they have contingency plans to drill a relief well immediately, if there are any problems—for example, if there is a blowout.

So absolutely, they do have contingency plans for drilling a relief well.

The Chair: Thank you, Mr. Tonks.

Thank you, Mr. Corey, for the answer.

We go now to Mr. Harris for up to five minutes.

We never get to the second round, so no one remembers the order.

Go ahead.

Mr. Richard Harris (Cariboo—Prince George, CPC): Thank you, ladies and gentlemen.

I want to ask a couple of questions, if I have time. First of all, we've talked about the liability of a company in the event of a spill. I've seen the numbers of $30 million, $40 million, and then a financial responsibility of $250 million; yet you have said that in fact the liability is unlimited.

I'm wondering what regulations or authority the government has to assess 100% of the cost of the cleanup and the damage to an operator. Where does that regulation exist specifically?

Mr. Eric Landry: If you look at the broader regime, the companies are responsible for preventing, mitigating, and managing the spill. If they cause a spill, they must clean it up and pay for losses and damage under federal legislation.

So in the accord areas, it would be under the accord act, and in non-accord areas it would be under the Canada Oil and Gas Operations Act.

Mr. Richard Harris: I guess my question is, does the government have to take them to court to get them to do that, or can they just impose it because of a regulation or legislation that exists?

Mr. Eric Landry: There is what is termed absolute liability, so without having to prove fault, the offshore boards and the National Energy Board can access those amounts.

In the case of accord areas, that amount is fixed at $30 million, and in the north—I'll turn to Mimi—it is $40 million. With respect to anything above those amounts, you have to demonstrate negligence on the part of the company.

Mr. Richard Harris: So you have to go to court. Okay.

I want to go quickly to an offshore spill resulting from a tanker ship. It's my understanding that there are and have been tanker ships running in and out of Kitimat on the west coast for some time now, under a provision that we have. They are operating under some very strict safety regulations, as far as the ships' hulls and the pilots and everything are concerned. There's another application by Enbridge, for example, and they're promising to put pilots on the ships, and pilot tugs in and out of the inlet from the open water and back from Kitimat, and double hulls on the ships. This appears to me to have covered all of the possible safety precautions that one can take to almost guarantee that a ship would not have an accident in the inlet while going in and out.

Am I pretty close on my assumption of that?

D/Commr René Grenier: Transport Canada is the lead agency responsible for the oil spill preparedness and response regime. It's also responsible for legislation for ships, especially tankers. They would be the authority to answer your question in detail.

We are working with them. We are taking every precaution to make sure that we look at every angle to make sure that a tanker going in and out of a port is secure.

Mr. Richard Harris: Okay.

My last question is just a simple one. Do first nations have a final veto on any oil and gas exploration anywhere in our country?

Ms. Mimi Fortier: I'll address that for the north. It's not a veto per se, but beyond first nations, the aboriginal groups include Inuit in the north. In accordance with their land claim agreements, they co-manage environmental assessment boards. They have members on those boards. They have a large say in what happens in the regulation of oil and gas activities.

Under the Inuvialuit Final Agreement there was a major hearing by the Environmental Impact Review Board, for instance, in the early 1990s, which put up major questions on the operator's plan to drill. In essence, the operator did not go forth with that drilling program.

● (1025)

Mr. Richard Harris: So realistically, at the end of the day, if they say that for cultural or environmental reasons they believe it shouldn't go, it isn't going to go.

Thank you.

Thank you, Mr. Chair. If I have any more time, I'll—

The Chair: Thank you, Mr. Harris. You are out of time.

Now to the Bloc Québécois and Monsieur Guimond.

[*Translation*]

Mr. Claude Guimond (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Thank you, Mr. Chair.

Good morning everyone.

I must say that I am not very reassured by what I am hearing today.

Mr. Corey, you have said a number of times that we have good legislation and regulations. I want to believe you. However, I am convinced that, despite our numerous laws and regulations, we are not immune to disasters such as the Deepwater Horizon spill in Louisiana. Mr. Bowden talked about plans. Mr. Grenier indicated that there were many stakeholders, including the Department of Defence and Transport Canada. I did not have time to note down all the names.

I have a very simple question. If a disaster were to occur—like the one involving BP—which department would assume the leadership role? Who is responsible for contacting everyone? Who will take on the leadership in order to implement all of the disaster mitigation measures? Do you have a response plan? Do you have an emergency plan? Is there a dialogue established between the departments and the private sector in order to develop a comprehensive disaster response plan?

Mr. Mark Corey: Mr. Chair, I would like to answer that first. Afterwards, Mr. Landry may want to add to that.

If a disaster were to occur,

[*English*]

it's the operators who have the primary first responsibility. They have to have equipment in place, and they have to have a plan in place to deal with it. In the first few hours it would be the operator. The board has the oversight. So for example in any of these cases it would be the board that would also step in and provide direction, but it would be the operator who would be responsible.

If the event grew to the extent that the operator was having trouble dealing with it, the offshore board would then call for assistance from a regional response corporation. This would bring in more resources from other operators and would bring in more equipment. So again it's a tiered response. You would find more equipment and more support coming in. You would find the coast guard; Transport Canada would be playing a role; Environment Canada would be playing a role; Fisheries and Oceans would be brought in. We do have emergency plans in place at the federal level. As an example, I would mention one in Natural Resources Canada. We do have a series of environmental management plans. Plan 9, which is the one dealing with offshore, was updated last September. So our plan on dealing with offshore emergencies in Natural Resources Canada was updated last fall.

We did actually have an exercise on March 25 of this year. It was before the gulf incident. It was one we conducted jointly with the Canada-Newfoundland and Labrador Offshore Petroleum Board. We simulated an incident, and it was what we call a tabletop exercise, where there was nothing actually happening out in the ocean, but we had a walk-through, a number of stages where different information was brought in, different developments. It simulated an actual disaster to see how the participants would respond to it.

If it were a major one, you would find that Public Safety Canada would get engaged. They have an emergency operations centre. Their emergency operations centre would swing into action, as would ours. We have an emergency operations centre in our department.

You would find a network across government that is there and is in place, and that's how the activities of the various departments would be coordinated.

The Chair: Merci, Monsieur Guimond. Your time is up.

We go now to Mr. Allen for up to five minutes.

Mr. Mike Allen (Tobique—Mactaquac, CPC): Thank you, Chair, and thank you to the witnesses for being here today.

The first couple of questions I want to ask are directed to the coast guard.

Mr. Grenier, you talked about the principle of escalation as we go up the steps of a ladder, I guess would be the best way to put it. You have the local, then other regions coordinating other resources, then international agreements on mutual aid and those types of things. What are the protocols for timing as to when you execute those steps of going up the ladder from local to regional to calling in mutual aid? Are there certain criteria you have with respect to the size of the spill or other criteria you have before you execute those steps?

● (1030)

D/Commr René Grenier: We're responsible for ship-source pollution. When there are incidents, normally they are dealt with by our regional coast guard people. If they see that they need more equipment, depending on the spill, then they will look for maybe the ROs, the response organizations, to help them out, or contractors. We do have our own equipment, so we would start with our own equipment, and if it were deemed necessary or if they didn't have enough equipment, they would turn immediately to headquarters, and we would make sure that the other regions would provide the equipment that is needed.

There's no timing per se, because it depends on the incident. It would be hard to give a... You know, you have to look at what's going on, but we do have equipment in every region, and some equipment is already prepackaged and ready to be sent by airplane or truck.

Mr. Mike Allen: At the regional level, then, those folks know the capacity of that equipment. For example, the region might have the capacity to deal with a 2,000-barrel oil spill, and that's it. Are they responsible at the local level to make that decision to escalate?

D/Commr René Grenier: Yes, they would be, because they would be there. They would know first, but before we intervene, it would be the polluter who would intervene and kickstart the intervention. We would be the federal monitoring officers. We would make sure that they're doing the right thing. By doing that, we would ensure that we understand what the spill is and what they're doing about it, and we would also prepare ourselves to intervene, if need be.

Mr. Mike Allen: Being from Atlantic Canada, I'll ask a specific question. What is the capacity within the coast guard and others to respond to a large-scale spill in the Atlantic region?

D/Commr René Grenier: In the Atlantic region the response organizations have to be prepared for a spill of a magnitude of 10,000 tonnes. After that, the coast guard would kick in with more equipment. The four response organizations told Transport Canada recently that among themselves, with all their capacity, they have enough equipment to respond to a spill of about 30,000 tonnes. The coast guard does not have as much as all the ROs combined, but almost as much, so we would have that capability.

It's not all in one place. It's across Canada, so we would have to cascade all the equipment from wherever it is to wherever the situation is.

Mr. Mike Allen: Once a decision is made to go to another region, how quickly can that region respond and have equipment there?

D/Commr René Grenier: It depends on the equipment. It's hard to say. It has to be trucked or sent by air, so it really depends on what you're asking for. If it's for booms and so on, I'd say they should be on site within 48 hours.

Mr. Mike Allen: Okay.

The Chair: Thank you, Mr. Allen. Your time is up.

We go now to Mr. Bains. You have up to five minutes.

Hon. Navdeep Bains (Mississauga—Brampton South, Lib.): Thank you very much, Chair.

We hear time and time again that BP cut corners. We just don't know what those corners are right now. One key issue that keeps on coming up is the relief well, and that's considered a viable solution. We're 58 days into this catastrophe.

I would like clarification from you about page 6 in your presentation, Mr. Corey. One of the things that you indicate for the approval is that a relief well is absolutely mandatory. Is that correct?

● (1035)

Mr. Mark Corey: Yes.

Mr. Chair, actually I can give even more specifics on that. I think this has been a subject of some misinterpretation in the past.

On June 10, the chairs of the three boards in an unusual step got together and jointly signed a letter to the *Ottawa Citizen* to correct the record. If I could just quote from their letter, this is the three heads of the boards:

> Relief wells are a proven method of regaining well control and neither the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada-Nova Scotia Offshore Petroleum Board, nor the National Energy Board would authorize companies to conduct any drilling or production activity if the contingency plans did not adequately address the drilling of a relief well.

So the boards have all been very clear, and I think we've tried to set the record straight. They require a contingency plan for drilling a relief well before any permits are issued.

Hon. Navdeep Bains: The second question is with respect to your presentation, Mr. Corey, page 13. The remark from the minister that you have at the bottom, the last line is "If a project does not meet these requests, it won't go through", and it talks about the approval process. Of course, going forward the minister wants to be very vigilant. Is there any reassessment of previous approvals? Is there any direction given to the boards of previous approvals and a retroactive assessment, based on what's happened?

Mr. Mark Corey: I would ask Eric to then fill it out a little bit more.

Governments are very careful not to instruct any of the boards. They are independent—

Hon. Navdeep Bains: I know they're arm's length, but I mean...

Mr. Mark Corey: We're very careful that we do not actually instruct them. There are some things, for example the Atlantic boards, that require the ministers' joint authority. Those are called fundamental decisions. But the regulation is really the responsibility of the boards.

Eric, did you have anything to add?

Hon. Navdeep Bains: The next question is with respect to absolute liability. I know there has been some discussion about it this morning, but I just want a clarification on changing the threshold. If there were a regulation to say we want to increase the threshold in the amounts that you have indicated or in a higher amount in light of the costs associated with the local businesses and local communities with major oil spills, what kind of impact would that have for the approval process? What if we increase the threshold to say billions of dollars or whatever the amount would be determined to be reasonable, in order to recuperate the costs for local businesses and communities?

You say absolute liability, but when people want to pursue this liability they have to go to court and it keeps dragging out for years. Of course a large corporation has means and resources to deal with small business and drag this process out. As you've indicated, you've got certain amounts, but if there's a higher threshold to quickly pay out, that would obviously be beneficial to local businesses and communities. Is that correct?

Mr. Mark Corey: Yes.

Let me be quite specific on this one. There are two different levels for the threshold for absolute liability. In Atlantic Canada and the two port areas it is $30 million and in the north it's $40 million. To be really clear on this thing, it is a form of security. It's a letter of credit, an indemnity bond, a guarantee from a financial institution. The board has direct access to that money and the board can access it and give it out to other parties. There is no requirement for any fault or negligence to be proven and it's sort of—

Hon. Navdeep Bains: Can we increase that? That is my question.

Mr. Mark Corey: Yes. Again, to the extent that there is a cost to the company for carrying that, to the extent that you increase it, it increases the costs to the company.

Hon. Navdeep Bains: And the board is looking into that? Are they looking at re-evaluating it? Those amounts seem to be fairly nominal compared to some of the costs that are being incurred right now in the Gulf of Mexico.

Mr. Mark Corey: Again, that's one of the things that I know there have been a lot of questions in the House recently to our minister about whether or not the government will be reviewing the levels. That really is an issue for ministers to decide. It would be inappropriate for me to address that issue today as an official, but we can tell you what the provisions are.

Hon. Navdeep Bains: Has there been any discussion or direction given by the minister to reassess this?

Mr. Mark Corey: Again, that would violate my oath as a public servant in terms of advice to ministers. As I say, the ministers are responsible for that. We can explain the system, but it is really more appropriate to put questions to the minister in terms of changes. It would be ministers who would basically decide and announce any changes.

● (1040)

The Chair: Thank you, Mr. Bains.

We go now to Mr. Hiebert, for up to five minutes.

Mr. Russ Hiebert (South Surrey—White Rock—Cloverdale, CPC): Thank you, Mr. Chair.

My questions are for Mr. Brown and they deal with the options that are available to the people who are cleaning up the spill. You mentioned in situ burning. You talked about chemical dispersants. You've talked about using boom technology. What other options are available?

Dr. Carl Brown: The options you would use in any particular spill really have to do with that specific situation, including where the spill is, what type of oil it is, and the proximity of sensitive environments. The three things that you mentioned are the primary response countermeasures.

In some situations, natural attenuation, or leaving the environment to take care of the oil, might be the proper choice. That option might be used sometimes in areas like marshlands, where, if you brought in heavy equipment, you might cause more damage than the oil itself. On a beach, for example, where there's a lot of wave energy, nature will take care of a lot of that oil. It will overwash the beach and bring some of that oil back into the water column and naturally disperse it. Bio-remediation would take care of it.

Mr. Russ Hiebert: Okay, that makes a lot of sense.

When you're looking at the three other options—using boom technology, in situ burning, or chemical dispersants—how do you decide? You're providing advice to the Department of Homeland Security and the EPA, so how do you decide which of these methods should be used in the circumstance?

Dr. Carl Brown: In almost all major marine spills, you would use all three of those countermeasures—or the fourth, that of natural attenuation. You need to look at the net environmental benefit of each of those possibilities. Each of those countermeasures is a trade-off. You may have a sensitive environment such as a bird colony or a habitat where there are fish or shellfish, and you would want to protect that. If the spill occurs, such as this one, in deep water, you may choose to use dispersants that would disperse a great amount of the oil into the water column. It would then be further diluted. You're trading off protecting that sensitive shoreline environment, and looking at the possible consequences of the oil and the dispersant on that marine deep-water community.

Mr. Russ Hiebert: My guess is that the boom technology is finite. We talked about the number of meters that are available. Is it not the case that it would be used to its maximum capacity and then beyond that there's really no other alternative but burning or chemical dispersants? Is there any reason the boom technology would not be used?

Dr. Carl Brown: Certainly, again, it depends on the situation. If you're using booms to corral oil so that it can be skimmed off and put into a barge or tanker, you can only skim at certain speeds, and most of these booms only work up to one nautical mile per hour. After that, you lose oil outside the back of the boom. Certainly you're restricted by that. You're restricted by foul weather, which may preclude the—

Mr. Russ Hiebert: It's the natural first line of defence, I would imagine.

Dr. Carl Brown: It certainly is, yes.

Mr. Russ Hiebert: The other question I have relates to the experiment that was done off the coast of Newfoundland and Labrador with an in situ burn. What are the trade-offs there? Is it a good alternative, burning in situ?

Dr. Carl Brown: Yes, it is a good alternative, depending on where it is. Certainly you wouldn't choose to use that if there were a coastal environment or human habitation where the emissions would blow directly onto the community.

But we measured the emissions, and most of the emissions are things like carbon dioxide and water, basically, that go up. There are some aromatic compounds that go up and there's some soot. The levels of those are well within human safety limits half a kilometre or a kilometre downwind.

It will rapidly remove up to 90% of the oil in a short period of time. So, for example, in those Newfoundland offshore burn experiments, there were two major burns where we deployed 50 tonnes of oil—50,000 litres—and over 90% of that oil was removed in just over an hour.

● (1045)

The Chair: Thank you, Mr. Hiebert.

We go now to Mr. Anderson for up to five minutes.

Mr. David Anderson: Thank you, Chair.

Dr. Brown, I'd like to come back to you. You mentioned in your presentation the Arctic and marine oil spill program. I'd like you to talk a little bit more about that. You said you have been meeting for 30 years and had a meeting last week in Halifax. What was covered there? What were the discussions about and what kinds of decisions were made?

Dr. Carl Brown: AMOP, as I've mentioned, is an international forum. We look at several things. We look at spill modelling. That enables response personnel to predict the fate, effects, and behaviour of the oil. Those models have been advanced substantially over the last number of years. They are contingent upon the inputs, though. We need to know what the fate of the oil is and do that by experimentation both in the lab and in the environment.

We look at the efficiency of countermeasures like spill-treating agents, so dispersants. We look at their toxicity, their effectiveness. There are other spill-treating agents in the marketplace, like solidifiers. So we look at how those things respond and increase the ability of a spill responder.

Mr. David Anderson: Who comes to the seminar?

Dr. Carl Brown: This year in Halifax we had about 180 people. Probably 60 of those are Canadian federal researchers and regulators. About 25% of our attendance is from U.S. federal agencies, academia, major spill research organizations: SINTEF in Norway would be there, Cedre from France would be there. The International Tanker Owners Pollution Federation will send people there, because they too want to learn about spill response technologies.

Mr. David Anderson: So you've spent 30 years with oil research and development, and spill technology, in the Arctic. What are the main results that you've found? After 30 years, what are your main conclusions?

Dr. Carl Brown: Our main conclusions are that response in the Arctic is difficult because of the limitations we have on available resources and infrastructure. Some of the technologies we use in the south are effective in the north, and we're learning more about that as time goes on. Certainly some of the techniques we've studied and developed work well in the north. In situ burning does work well in open ice conditions, and it works well if you have a spill on top of the ice.

More recently, we've looked at chemical herding agents. That's a chemical you would apply around the perimeter of a spill, and that would force the oil into thicker portions, which would enable you to have an in situ burn without the need to have a boom around it.

We've looked at the improved pumping of heavy and viscous oils through things like pumps that the coast guard would typically use, but those pumps are not as efficient at pumping heavy oil. We've studied things like annular water injection or steam injection, so that you basically increase the lubrication inside those pumps so you can pump heavy oil. We know these things work because we see they're being picked up by the response community. The response organizations are using these, and we're getting feedback. There was a bunker fuel spill in the winter, and the Eastern Canada Response Corporation used it last January, and it worked very well.

So we're getting feedback from industry to show that what we're doing works as well.

Certainly it's a great forum for people to get together and for researchers to interact. It's expensive to do research. It's good that we work with our international partners and are able to leverage the funding that we can put forward. We all benefit from that interaction.

● (1050)

The Chair: Thank you, Mr. Anderson.

We go now to Mr. Cullen for up to five minutes.

Mr. Nathan Cullen: Thank you, Mr. Chair.

I'll try to keep my questions short, and I'd ask that the answers would be also.

Mr. Corey, has the NEB ever refused the licence once it's gone through the licensing stage? Have they ever come back and said they don't find this up to scratch, and sent the company back?

Ms. Mimi Fortier: I mentioned earlier in answer to a previous question that prior to the National Energy Board taking over the Canada Oil and Gas Operations Act responsibilities, there was a review done by the Environmental Impact Review Board pursuant to the Inuvialuit Final Agreement, whereby they found that the drilling program was insufficient. There were still concerns. That advice was turned over to the regulator, and the drilling program was not approved.

Mr. Nathan Cullen: Mr. Corey, you talk about us having the strongest regulatory environment. The government moved from requiring a comprehensive environmental assessment to a basic screening. Is that true?

Mr. Mark Corey: That's true. That was as a result of the Atlantic Energy Roundtable in 2005. The thing to point out is that the screening is as rigorous as a comprehensive review. The principal difference is in the consultations that are required as part of the process and some other things.

Mr. Nathan Cullen: There are fewer consultations required in a screening.

Mr. Mark Corey: But I would just run through and say the screening is very rigorous. It includes the environmental effects of the process, including cumulative effects, significance of environmental effects technically and economically used in the measures. It's a very rigorous process.

Mr. Nathan Cullen: But it's less than. In the order of environmental assessments, comprehensive is seen as more rigorous than a screening.

On the May 11 announcement from the NEB—

The Chair: Mr. Cullen, I think Mr. Corey wanted to respond to that comment.

Mr. Mark Corey: Again, I don't think you would say it's less rigorous. The two are equally rigorous. One has more consultation built in.

The other thing to underline is that if the Minister of the Environment, after the screening is done, has any concerns at all, the minister has the prerogative to refer it to a panel.

Mr. Nathan Cullen: Interesting. According to the Environmental Assessment Office, one is less rigorous than the other, but according to you it's not.

In regard to the May 11 NEB announcement to have the review, have any of your departments been involved in the NEB review?

Ms. Mimi Fortier: They have just put out, on June 10, an invitation for participation and comments on the scope. So we have yet to decide what the government department's role will be in that review.

Mr. Nathan Cullen: I saw some nodding heads. Are you folks from Environment Canada involved in the NEB review?

Dr. Carl Brown: I'm a researcher, so I can't say—

Mr. Nathan Cullen: So you don't know.

For the coast guard, Monsieur Grenier, you're not sure.

Mr. Corey, are you folks involved?

Mr. Mark Corey: I would say again, the NEB is an independent arm's-length organization. They are undertaking the review. On June 10 they issued a scoping paper. It's out for public consultation right now. So again, everyone is able to see the document, comment on it, and get involved in the review.

Mr. Nathan Cullen: That's very nice, but you folks are all involved in various stages of the oil and gas process. The NEB is reviewing those things right now. I would assume that the coast guard, NEB, INAC, and Environment Canada would all be at the table. I'd be surprised if they're not.

My question—

Mr. Mark Corey: I'd like to respond to that.

Again, to understand the role of the National Energy Board, it's an independent arm's-length organization. It's done that way consciously, and when they undertake the review, I think it would be important that it be undertaken by an independent arm's-length organization.

Mr. Nathan Cullen: So when you say “arm's length”, you also mean arm's length from industry, correct?

Mr. Mark Corey: That's correct.

Mr. Nathan Cullen: How much of the NEB funding comes from industry?

Ms. Mimi Fortier: I don't have the facts before me.

Mr. Nathan Cullen: I have the facts, so it's—

Ms. Mimi Fortier: The NEB has two distinct legislative-based mandates, and the—

Mr. Nathan Cullen: Mr. Chair, I have a specific question—

The Chair: Mr. Cullen, you asked the question; please allow the witness to answer it.

Mr. Nathan Cullen: She said she didn't have the answer to the question.

The Chair: This witness does.

Mr. Nathan Cullen: You do?

Ms. Mimi Fortier: I will tell you that. Under the Canada Oil and Gas Operations Act, it is not cost-shared. The industry does not pay for the NEB's regulation.

Mr. Nathan Cullen: The NEB has received 90% of its funding from industry for operational costs. I'm surprised that folks at this table don't know that.

The second question is—

Mr. Mark Corey: We would like to answer that.

The Chair: Mr. Cullen, we have a couple of people who want to comment on that.

Mr. Eric Landry: It's for its responsibilities under the NEB Act; and Mimi just pointed out that under its responsibilities under COGOA, which applies to offshore oil and gas, the NEB does not recover from the private sector.

Mr. Nathan Cullen: Who's the lead agency on the Beaufort regional environmental assessment?

Ms. Mimi Fortier: INAC is coordinating that.

Mr. Nathan Cullen: Do you have funding for it?

Ms. Mimi Fortier: We had some limited funding. We started a workshop on cumulative effects with the University of Saskatchewan and we've given funding to the Inuvialuit for socio-economic indicators.

Mr. Nathan Cullen: What's strange to me is that all groups—the industry, Inuvialuit, and the federal government—have supported this, yet it was absent in the 2010 federal budget in terms of funding.

It seems strange to me and a bit incongruous that with such limited boom capacity and spill response capacity we've been issuing leases into the Arctic with no knowledge or any ability to actually clean up a spill such as happened in the BP Horizon.

● (1055)

The Chair: Mr. Cullen, your time is actually up.

Point of order, Mr. Anderson.

Mr. David Anderson: It is a point of clarification.

He mentioned limited boom capacity, but I understood earlier that we have 90 kilometres of it in this country.

The Chair: That's really not a point of order, Mr. Anderson, but we will go now for maybe two to three minutes to Mr. Regan.

Hon. Geoff Regan: Thank you, Mr. Chair.

I gather it's six kilometres or 6,300 metres of offshore and 85,000 metres of shoreline boom. That is my understanding. That isn't my question, but you can correct me if I'm wrong or if I'm way off.

There's an interesting report called the Orphan Basin exploration drilling program environmental assessment, which indicates that even if response organizations were perfectly prepared for a major spill and well trained and outfitted, there are still real limitations in terms of how much oil you could actually deal with at sea, particularly in the North Atlantic. Of course we're all aware that the conditions there can be pretty heavy seas.

First of all, do you agree that for any major offshore spill there are certain limitations to response and cleanup?

I guess my questions are for Mr. Bowden and Mr. Brown.

Mr. Ron Bowden: Of course there are limitations. There's a whole chain of logistics, of course. There's containment, which is of course the first priority. Then there is recuperation of your spilled oil and then that must be stored and transported. The logistical chain is quite large. Especially in the event of the BP Deepwater Horizon, as I mentioned, it's quite overwhelming.

Hon. Geoff Regan: I guess I'll go to Mr. Brown on this. My understanding is that in the event of a spill in the Orphan Basin, only a small percentage, estimated at between 2% and 12%, would be likely to be recaptured. In fact, if you're in winter it's more the 2% number, in view of the conditions you have there in winter. Is that accurate? Is that your understanding?

Dr. Carl Brown: I can't comment. I haven't seen the report you're referring to.

Hon. Geoff Regan: Perhaps Mr. Corey is able to comment on this.

Mr. Eric Landry: It's something the Offshore Petroleum Board would be able to comment on.

Hon. Geoff Regan: So you don't have any idea of the answer to that question. Nobody here can tell us the answer to that question.

Mr. Mark Corey: Mr. Chair, could we have the question again? I'm not sure that I followed the whole thing.

The Chair: Yes.

Mr. Regan, could you ask the question again? It will be your last question.

Hon. Geoff Regan: Okay.

Is it true that only a small percentage can be captured at sea in places like the Orphan Basin, off the northeast coast of Newfoundland and Labrador? The estimate is that only a small percentage, between 2% and 12% of oil spilled, could be retrieved under typical wind and wave conditions, the 2% figure being the one in the typical winter conditions.

Mr. Eric Landry: In terms of being able to comment on that, I guess those are based on studies that Chevron has indicated, and if that's the report that it did submit to the offshore board, then yes, it wouldn't be appropriate for me to comment on Chevron's—

The Chair: Okay, we have to cut the answer off at that.

Mr. Cullen, a quick point of order. Please do make it quick. The next committee is waiting.

Mr. Nathan Cullen: I understand.

Through you to the clerk, Chair, there's been a great deal of interest, obviously, in the public for the hearings. I'm wondering if we can see if it's possible to have Thursday's meeting televised, or in a televised room, I suppose.

The Chair: You make that request, Mr. Cullen, which you've done, and the clerk will do her best to accommodate it.

Thank you all very much for your presentations and for answering the questions today. I found it very informative. Thanks again.

I look to see the committee on Thursday at nine o'clock.

The meeting is adjourned.

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