

Northern Lights 2018

/ Oil and Gas Activities Offshore Labrador: The Regulator's Perspective

Slide 1 – Introduction

Thank you for the opportunity to speak today. I'll provide a brief overview of our organization and its role, talk a bit about what's happening offshore Newfoundland and Labrador in general and then zero in on Labrador.

Slide 2 – Safety Moment

It's customary in the petroleum industry, and for us as regulators, to begin meetings and presentations with a safety moment, just to reinforce safety as our top priority.

I'll share with you information about an incident that took place last year and resulted in recent enforcement action by our organization. It also involves an iceberg, so it's topical for this conference.

On March 29, 2017, an iceberg entered the 0.25 nautical mile Ice Exclusion Area of the *SeaRose* FPSO, which is operated by Husky Energy.

There were 84 personnel and upwards of 340,000 barrels of crude onboard at that time.

In accordance with Husky's Ice Management Plan, filed as a requirement of their operations authorization, which is issued by the C-NLOPB, the *SeaRose* should have disconnected and sailed away from the threatening iceberg. That action was not taken and personnel were at one point instructed to muster and 'brace for impact'.

Ultimately, the iceberg did not make contact with the *SeaRose* FPSO or subsea infrastructure. There were no injuries, no environmental damage and no damage to the facility.

A public C-NLOPB Incident Bulletin was issued on March 30, 2017, followed later by a Notice of Non-Compliance to Husky for failing to comply with its ice management plan, along with an Order to Comply. Those were our initial enforcement measures while we followed up with the Operator to ensure the safety of offshore workers.

Husky submitted its Final Investigation Report into the incident about a month later and the Board then decided to launch its own formal enquiry last May, which was conducted by our Safety and Environmental Compliance Officers.

In response to the findings of the preliminary Enquiry report, the C-NLOPB suspended petroleum-related operations conducted by the *SeaRose* FPSO on January 17. The Enquiry included gathering and assessing of significant volumes of information along with interviews with all of the relevant parties. This takes considerable time to do properly and thoroughly as would be the case with any investigation in any sector with potential enforcement implications.

Those findings were: that Husky did not follow its ice management plan; that onshore senior management did not ensure the plan was followed; and that the Offshore Installation Manager failed to disconnect in accordance with the plan, as was his responsibility. These findings were shared with Husky and speak to the C-NLOPB's concerns with the Operator's adherence to its emergency response plans. Husky has publicly acknowledged it could and should have reacted differently that night, and has taken a number of measures to address the report's findings.

Once we were satisfied with Husky's response, we withdrew the suspension of petroleum-related operations conducted by the *SeaRose*. Husky has now taken appropriate actions and made appropriate commitments to address the deficiencies that we had identified. In all, production was shut in for nine days. This was first time in 14 years the Board has been given cause to shut in an operator.

The matter is still ongoing and subject to further enforcement action.

Slide 3 – C-NLOPB at a Glance

So what gave us the authority to take such action? We are the independent regulatory agency created in 1986 under the *Atlantic Accord Implementation Acts*. Our mandate includes safety, environmental protection, resource management and local industrial benefits. Safety and environmental protection are paramount in all Board decisions.

Headquartered in St. John's, we have approximately 85 permanent staff. With more than 30 years experience, we are a respected, world-class offshore regulator that has served as an effective means of joint management under the *Atlantic Accord*, and as per one of the recommendations from the Royal Commission on the Ocean Ranger Marine Disaster.

We are also members of several international organizations including: the International Regulators Forum; International Offshore Petroleum Environmental Regulators; the International Upstream Forum; and the North Sea Offshore Authorities Forum.

Our engagement in those international organizations and our track record as regulators are really what give me the confidence to declare that we are world-class in all elements of our relatively broad mandate.

Slide 4 – Canada-Newfoundland and Labrador Offshore Area

The Canada-Newfoundland and Labrador Offshore Area is relatively vast and has over 20 underexplored sedimentary basins. Under the *Atlantic Accord Acts*, our jurisdiction extends to the outer edge of the continental shelf, which of course Canada is currently working hard to formally delineate through international channels. This is why you see C-NLOPB licences outside the 200 mile limit represented on the map by the red line.

The area we regulate is 1.8 million square kilometers. That's bigger than the US Gulf of Mexico Offshore Area and bigger as well than the Norwegian Shelf Offshore Area.

Slide 5 – Offshore Activities

The industry downturn that resulted from low oil prices has had a negative effect on activity and economies globally, including Newfoundland and Labrador. Yet, from a regulatory perspective, we have remained relatively busy and the region continues to attract significant investment and interest.

We currently have 28 active exploration licences, 56 significant discovery licences and 12 production licences.

Since 1966, there have been 450 wells drilled in our offshore area, including 225 development wells, 57 delineation wells and 170 exploration wells.

1.7 billion barrels of oil have been produced from five projects – Hibernia, Terra Nova, White Rose, North Amethyst, and as of late last year, Hebron, which produced first oil in November. Over one billion barrels have been produced from the Hibernia Field alone.

In addition to regulating production, the C-NLOPB oversees activities such as seismic data acquisition, exploration drilling and sub-sea developments.

Slide 6 – Some of the Newest Activities in the Canada-NL Offshore Area

In mid-2017, ExxonMobil and its co-venturers completed construction and tow to field of the Hebron Gravity Based Platform. It has already produced more than a million barrels.

At the end of May, Husky Energy and its partners announced their decision to proceed with the West White Rose Expansion using a gravity based wellhead platform. The wellhead platform will tie back to the *SeaRose* FPSO and will eventually produce approximately 75,000 barrels of oil per day at peak. First oil is expected in 2022, pending regulatory approvals.

Two other specialized facilities began operations last year. The *Transocean Barents* is a harsh environment drilling rig built in 2009. It was contracted by Suncor to work in the Terra Nova Field.

The *Ramform Thethys* is one of a number of modern, 3D Seismic vessels used by Multi Klient Invest AS to conduct seismic programs, in this case the Eastern and Southern Newfoundland regions.

Slide 7 – Labrador Strategic Environmental Assessment

The Board's responsibility for environmental protection includes ensuring Environmental Assessments, or EAs, are conducted for projects for which an EA is not required under CEAA 2012. An EA must be submitted as part of, or in advance of, its application for authorization. No authorization shall be issued unless a CEAA 2012 EA or an *Accord Act* EA has been completed. You're all likely aware of the federal EA review that is underway.

The Board has conducted Strategic Environmental Assessments (SEAs) since 2002 in portions of the Canada-NL Offshore Area that may have the potential for offshore oil and gas exploration activity. An SEA incorporates a broad-based approach that examines the environmental effects that may be associated with a plan, program or policy proposal and allows for the incorporation of environmental considerations at the earliest stages of program planning. SEA considers a relatively large ecological setting and includes consultation with a wide array of stakeholders. A project-specific EA later focuses on site-specific issues within a defined boundary.

There is an SEA completed for each of the areas highlighted on this map. Over the past few years we have focused on reviewing and updating an SEA after a period of time, typically in the order of seven to eight years, to incorporate new information and update existing information.

The Labrador SEA was completed in 2008 and we are currently in the process of updating it with a multi-stakeholder Working Group, which includes representation from federal and provincial government agencies, Nunatsiavut Government, fishing

interest groups, Indigenous organizations, academia, industry, and non-governmental organizations. The Working Group is co-chaired by the C-NLOPB and the Nunatsiavut Government. Our commitment is that an SEA Update must be completed a minimum of 120 days prior to the close of a Call for Bids.

We have issued the RFP for the Update to the Labrador SEA. We are in the process of evaluating proposals received as a result of this RFP to choose an environmental consulting firm to assist in the preparation of the SEA Update. The gathering and documenting of traditional knowledge from the region's Indigenous Groups will be an important component of the SEA Update.

Based on feedback from stakeholders on our project-specific EAs, we recently decided to review the temporal and spatial scopes of *Accord Act* EAs. The decision was made to shorten the temporal scope of geophysical/geological EAs to six years to become more aligned with Period 1 of an EL. Also, the southern boundary of the spatial (geographic) scope of those EAs in the Labrador Shelf offshore area can only extend as far SOUTH as 52 degrees north and for EAs NOT offshore Labrador, as for NORTH as 52 degrees. Therefore, an EA boundary does not extend past the boundary of an existing Strategic Environmental Assessment.

We are also considering, along with governments, a new approach that would see regional environmental assessments on a smaller scale than our current approach to SEAs.

Slide 8 –Exploration Potential

An important, but sometimes misinterpreted role of the C-NLOPB, as defined in the *Atlantic Accord Acts*, is to facilitate exploration and offshore development while also overseeing compliance with safety and environmental regulations. But we do not “promote” the industry. Promotion is a role for industry, along with governments and Nalcor, and they have a lot to work with in that regard as the resource potential is significant. There are other favourable factors in Canada and specifically in Newfoundland and Labrador making this a good place to invest.

The C-NLOPB does its part through the administration of the land tenure process and through the authorization of exploration activities. Our expert geologists and geophysicists research the prospectivity of land and with input from industry through the nomination process make parcels of land available in a Call for Bids. But again, we are not involved in the marketing of the resource.

The C-NLOPB facilitates offshore exploration by authorizing geoscientific and exploratory drilling programs. We will not authorize any activity unless the operator meets legislative and regulatory requirements and has undertaken measures to reduce any risks to levels that are as low as reasonably practicable.

Slide 9 – Past Seismic Activity in Labrador

Seismic data acquisition off Labrador began in the mid-1960s and halted in the mid-1980s. With the exception of a couple of seismic programs, interest in area did not ramp up again until 2002.

There are several possible explanations for the renewed increase in exploration including renewed interest in natural gas, greater knowledge of ice conditions and ice management, changes in technology and interpretation of subsurface geology, and increased interest from exploration companies that sell speculative seismic data.

In recent years, the scheduled land tenure process and the resource potential have been successful in generating interest from several companies new to our offshore area.

Slide 10 – Significant Discovery Licences off Labrador

In the 1970s and 80s, there were 27 wells drilled in the Labrador Offshore Area. Eight were in Labrador North and 19 in Labrador South. This resulted in five significant gas discoveries in 1987 – Snorri, Hopedale, North Bjarni, Bjarni and Gudrid. These licences remain current and you can obtain information about each of them on our website.

The total amount of gas discovered in these five discoveries is over four trillion cubic feet. To put this in perspective, the Sable Gas Project off Nova Scotia is winding down and will have produced about three trillion cubic feet by the time it stops producing.

The economics and infrastructure required for the commercial development of natural gas have been confounding issues, but the Government of Newfoundland and Labrador is committed to working with others in an effort to address them.

Slide 11 – 2017 Call for Bids Labrador South

In December 2013, the Board issued a Call for Nominations for Areas of Interest in the Low Activity Region of Labrador South.

The results were analyzed by the C-NLOPB, which led to the announcement of the first Sector in May 2014.

Industry had several months to acquire information about the Sector and identify prospects.

Then, in January 2016, the Board issued a Call for Nominations for Parcels.

Again, the results were analyzed and the Board issued a Call for Bids in November 2016 following Board and government approval.

There are 10 parcels now available for bidders on the sole criteria of work commitment. The locations of the parcels are illustrated on this map.

Since there remains a significant amount of work to be done on the Labrador Shelf Offshore Area SEA update and because we would not, under Board policy, close this call before a minimum of 120 days after the completion of an update to this SEA, the originally intended November 2017 closing date was no longer attainable.

We'll figure out what the appropriate closing date should be and communicate it to industry and the public once known.

Slide 12 – 2019 Call for Bids Labrador South

A similar process is being followed again for the 2019 Call for Bids for Labrador South.

A Call for Nominations for Areas of Interest was made in February 2015 and a Sector was identified in June 2015.

A Call for Nominations for Parcels may open early in 2018 with the Call for Bids possibly being announced in early 2019, pending Board and Government approval.

Slide 13 - 2017 Geoscientific Programs

This slide illustrates where geoscientific programs took place in our offshore area in 2017 and the companies that undertook the work.

In the Labrador Offshore Area, MKI completed a 2D seismic survey over the active sector. Additionally, MKI acquired a regional 2D seismic survey which extend across the Southern and South Eastern Newfoundland Land Tenure Regions.

The total 2D seismic acquisition for last year was approximately 22,000 line kilometers.

3D seismic work was undertaken by MKI in the Eastern and Southeastern Newfoundland Regions. Four 3D surveys combined for approximately 20,000 square kilometers of seismic data.

In addition to conventional seismic programs, EMGS conducted a controlled source electromagnetic program in the Western Newfoundland and Labrador Region and Fugro operated a geochemical program in Eastern Newfoundland collecting approximately 100 seabed samples. Finally, Husky operated a Geohazard Survey in the Jeanne a'Arc Region.

Slide 14 – Possible 2018 Exploration Activity

It is likely that Newfoundland and Labrador Offshore area will see a similar level of Exploration Activity for this upcoming field season with acquisition of both 2D and 3D seismic survey's expected over active Sectors.

Slide 15 – 2018 and Beyond for Labrador

Large multinational oil companies own interests in many countries and must weigh long-term global investments opportunities carefully. The internal competition for investment dollars can be tough, especially during times when investment is curtailed due to low oil prices. Indications are that the Canada-Newfoundland and Labrador Offshore Area is an attractive place for investment and I am realistically optimistic about future offshore interest and safe and environmentally responsible petroleum related activities.

There will be several geoscientific programs undertaken in our offshore area this year and some will likely include Labrador South.

There may also be licencing opportunities in 2018 and 2019.

Over the next six years, there remain over \$3 billion in work commitments to be met for the entire offshore area.

Many industry analysts are projecting a slow and steady increase in oil prices over the next few years, and we've seen some signs of that of late.

There are also Research and Development and Education and Training obligations and opportunities for organizations in the province in partnership with Operators.

Slide 16 – Thank You

I want to again thank you for this opportunity to talk about offshore exploration in the Labrador region.

If you'd like additional information about the C-NLOPB, please check out our website, follow us on Twitter, view our videos on You Tube or contact us by phone or email. We're trying to be more transparent, accessible, open and accountable than ever before.

Thank you again for your invitation. I'll gladly take questions and comments.