Upstream Oil and Gas

Spill Prevention, Preparedness, Response, and Recovery

March 2013



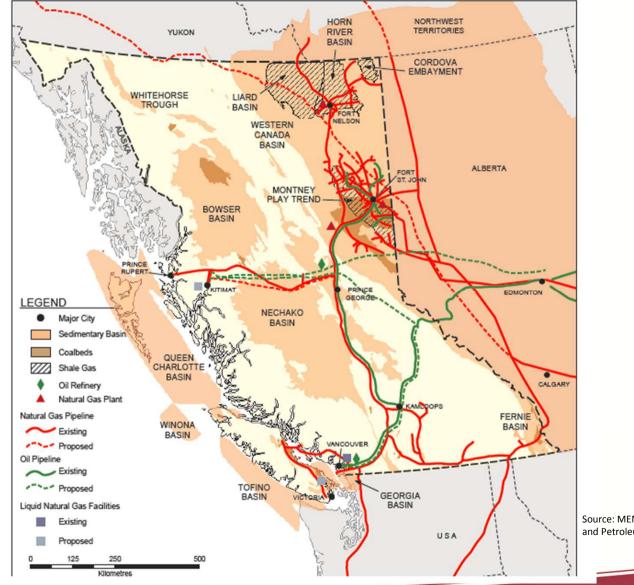
CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS



Canadian Association of Petroleum Producers (CAPP)

- Members explore for, develop and produce natural gas, natural gas liquids, and crude oil throughout Canada
- Produce about 90 per cent of Canada's natural gas and crude oil
- Part of a national industry with revenues of about \$100 billion per year
- Producers pay royalties to government on any volumes produced
 - Royalties paid to the Government of BC is approximately 700 \$Million/year (Source: BC Provincial Budget- average from 2007 to 2012)
- Associate members provide a wide range of services that support the upstream crude oil and natural gas industry

Upstream Oil and Gas Industry in B.C.

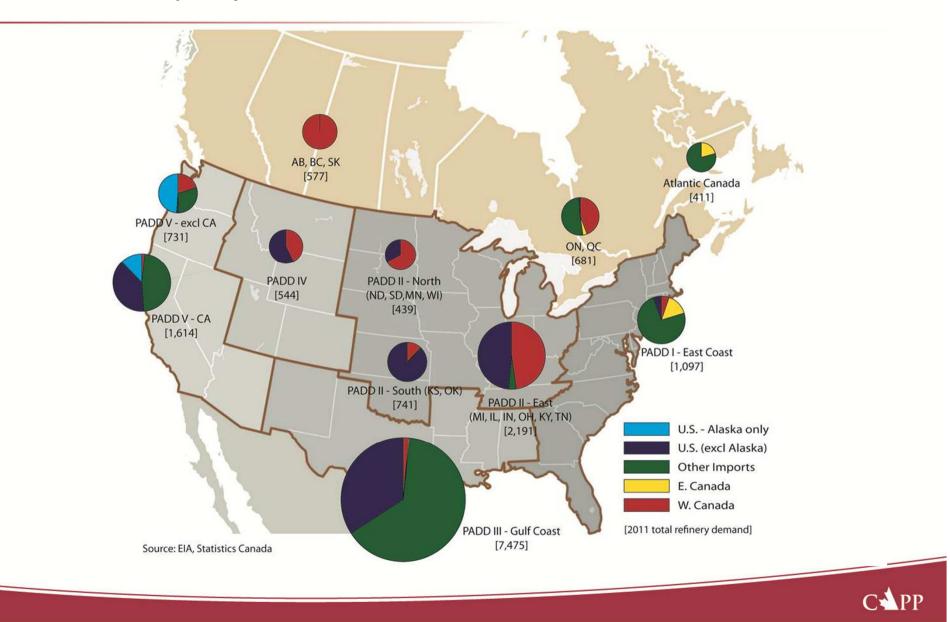


Source: MEMNG British Columbia Natural Gas and Petroleum - Yours to Explore 2010

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2011 Canada and U.S. Demand for Crude Oil by Source

Thousand Barrels per Day



CAPP's Responsible Canadian Energy™ (RCE) Program

The RCE Program represents a collective commitment by CAPP's member companies to continuously improve, measure and report performance in the areas of people, air, water and land, and engage collaboratively with the communities in which industry works.

Website link: <u>http://www.capp.ca/rce/</u>

Vision & Principles:

- We will conduct our business activities in a safe and sustainable manner, balancing social, economic and environmental considerations.
- We will hold each other accountable and measure ourselves against the following principles:
 - Provide a safe and healthy workplace for our employees, contractors and for the communities in which we work, with a goal to do no harm;
 - Conduct our activities in an environmentally responsible manner;
 - Engage our stakeholders in open and responsive communications;
 - Create opportunities for economic and social benefits in the communities in which we operate, at a local and national level; and
 - Conduct our business activities with integrity, ensuring all people are treated with dignity, fairness and respect.

Upstream Oil and Gas Industry

- The upstream oil and gas industry is well regulated and is prepared to respond to spill incidents in a timely and comprehensive manner. Companies maintain in-house expertise, equipment, and capacity to respond to incidents.
- In BC, the primary focus is on upstream production of gas with some oil in the NE corner of the province. These activities are regulated by the British Columbia Oil and Gas Commission (OGC).
- The midstream transmission of oil from neighboring provinces is an integrated part of the industry. This pipeline transportation system is regulated by the National Energy Board (NEB).
- Western Canadian Spill Services (WCSS) is a spill preparedness company that provides support to a company's in-house response capability. WCSS is funded through industry levies, has established equipment caches in where in dusty operates. WCSS often assists the companies get equipment to the site. The responsible company will ensure the availability of properly trained personnel.

Spill Preparedness and Response

Spill preparedness and response is integrated within the functions of emergency management:

- Prevention
- Preparedness
- Response
- Recovery/Remediation

Emergency management is a shared responsibility.





Spill Prevention

- Spill prevention starts with a clear set of operating rules from the designated regulator, a role that for us has historically been filled by the OGC and the NEB.
- Planning, sound engineering practices, and personnel training underpin prevention measures.
- Under regulation, industry must take measures to prevent spillage or, in the case of a release, must remedy the cause and remediate the land.
- The OGC and NEB require all BC operators to have an Emergency Management program/system and Emergency Response Plans, with specifics on spills.
- It is important to demonstrate to governments, local stakeholders, First Nations, and the public that the upstream oil and gas industry, and the province, is adequately prepared for a spill of any nature.
- A review of the current spill response system is welcome to ensure its ongoing effectiveness.

Spill Preparedness

- Government's role is to ensure that industry has spill preparedness and response plans in place.
 - OGC fulfills this role for the oil and gas industry in BC, and already has industry levies to fund its operations.
 - NEB fulfills this role for pipelines which transport oil and gas produced across provincial boundaries.
- The upstream oil and gas industry's spill preparedness system is well-designed, with both training and audit components.
- The current system is augmented by the participation and funding of area spill co-operatives (co-ops) under WCSS. These co-ops include the purchase and storage of equipment as well as training exercises that are inclusive of first responders and local authorities.
- These co-ops are funded based upon identified needs which are regularly reviewed.

Spill Preparedness and Response

- The upstream oil and gas industry is capable, today, to respond to a spill in northeastern BC. The existing process for handling spills is robust and effective and is augmented by Western Canadian Spill Services (WCSS):
 - was founded in 1972 as an industry funded, not-for-profit, spill response cooperative that operates interprovincially in Western Canada.
 - performs annual training exercises, provides and requires training courses, sets minimum equipment standards, provides centralized ownership of oil spill response equipment, and provides subject matter expertise during a response.
 - regularly reviews training courses, equipment use, world events, and input from members and regulators to ensure its policies, procedures and practices are world class.
 - membership fees have 2 components: fixed and variable based on wells and/or kilometer of pipeline for which a company is responsible.
 - also provides assistance to non-members under a separate fee structure.

Spill Response

- The petroleum industry has a robust system that is working to minimize spill incidents. If spills do occur, they are managed to:
 - Control and contain the incident,
 - Assure worker and public safety,
 - Meet regulatory requirements, and,
 - Position to undertake recovery work.
- The vast majority of spills from the upstream oil and gas sector are minor.
 - In 2010 93% of the upstream spills in BC were minor and determined by the regulator to have no potential impact to people, property or the environment (OGC Public Safety Report 2010).
 - Industry believes government should design the system to enable scalable response commensurate with the incident.
- The current upstream spill management system can be used as a benchmark for a broader BC regime.
- There is an opportunity to build on current industry experience.

Spill Response/Recovery

- Multi-jurisdictional response requires coordination through unified incident command structures.
- If a spill occurs on a lease site or right-of-way, response and recovery efforts are coordinated by industry working with the OGC.
- If a spill occurs off or leaves the lease site or right-of-way, response and recovery efforts must be coordinated with industry, the OGC, the Ministry of Environment, and other applicable regulatory bodies (e.g. municipal services (police/fire), NEB).
 - In this situation, the MOE has the ultimate responsibility for establishing standards and oversight of the long term recovery and remediation efforts, however the OGC has the technical expertise to provide appropriate and industry specific oversight.
- CAPP supports an agreement between the Ministry of Environment and the OGC with regards to response and recovery for spills that may occur or leave the lease site or right-of-way.

Spill Recovery/Remediation

- The federal and provincial goal of spill risk management is the protection of human health and the environment.
- Current regulations provide for a risk based approach for site closure to ensure risks to the environment and public safety are managed.
- Federal legislation applies the polluter pay principle post-incident for clean-up and restoration. CAPP supports this principle.
- Regulatory monitoring and reporting post-incident ensures completion.

MOE Policy Intentions

Key Objective: Establish a world-leading regime in BC for land-based spill preparedness and response

CAPP Comments:

- CAPP supports the objective of "world-class outcomes" for land based spill prevention, preparedness, response and recovery.
- CAPP supports the development of national standards for Emergency Management (e.g. CSA).
- CAPP believes that the current spill prevention, preparedness, response and recovery standards under the purview of the OGC is aligned with the legislated requirements and meets the needs of the regulators, producers, and people of BC.
- WCSS meets the objective of the MOE's policy intentions and is a model to build upon.
- British Columbia's regime must avoid duplication, seek harmonization with other jurisdictions and levels of government, build upon existing models of success, and be cost-effective.

MOE Policy Intentions

Key Objective: Develop effective and efficient rules for restoration of the environment following a spill

CAPP Comments:

- CAPP supports the objective of restoring the overall environment to its condition prior to the spill. In other words, an approach that seeks a return to a productive environment is an appropriate objective.
- In Canada, the Canadian Council of Ministers of the Environment (CCME) has established environmental standards which have been customized and implemented within current provincial regulations, including B.C. These standards are suitable to define spill remediation standards.
- Compliance to the regulatory standards achieve the desired outcome. A "natural resource damage assessment" type of mechanism is unnecessary and leads to an extensive and unproductive litigation process.

MOE Policy Intentions

Key Objective: Ensure effective government oversight and co-ordination of industry spill response

CAPP Comments:

- Effective government oversight is necessary to ensure public confidence in BC's spill response regime.
- British Columbia needs an overarching governance model to ensure coordination of spill preparedness and response for all regions and industries of British Columbia.
 - Avoid extensive bureaucracy and build on existing processes and resources.
 - Rely on emergency management systems which proactively describe and allocate prevention, preparedness, response, and recovery roles and responsibilities.
- The primary role of a government is to demonstrate and apply governance through an appropriate regulatory framework. Application of the best placed regulator should be considered within this framework.
- If additional resources are needed, funding mechanisms should be fair and equitable to all, recognize existing spill response capabilities, and be risk-based.

Summary

CAPP believes that the upstream oil and gas industry has a world-class emergency management system already in place that supports all functions of spill prevention, preparedness, response, and recovery.

The upstream oil and gas industry has an effective model by providing:

- A comprehensive and effective set of standards developed over decades of industry experience and regulatory oversight.
- A robust funding model already in place through industry funded spill cooperatives.
- A strong understanding of the industry risk profile due to decades of quantitative analysis of operations across multiple geographic regions.
- A commitment to recovery and remediation of any damages through adherence to the polluter-pays principle.

Path Forward – CAPP Recommendations

- There is a need to better understand the perceived "gap" and the potential opportunities for improvement in performance, both within and across sectors and in different regions of the province.
- Based upon the established CCME environmental standards which have been customized and implemented within current provincial regulations, spill remediation standards can be further defined, where needed.
- To ensure coordination of spill prevention, preparedness, response, and recovery for all regions and industries of British Columbia, an overarching governance model is needed. It is important for government to define roles and responsibilities for all functions of spill management and to ensure such a model is efficient, nimble and cost-effective.
- There is a need to recognize existing spill response capability provided by industries and other agencies. Any modification or enhancements should be fair and equitable to all stakeholders.