

Presentation to the Select Committee on the Risks and Benefits of Hydraulic Fracturing

Overview of the Regulation of Oil and Gas Activities in Yukon Territory

Department of Justice, September 26, 2013





Introduction – Objectives

- Overview of key Yukon statutes
- Outline regulatory landscape:
 - purpose and scheme
 - set in context of oil and gas activities
- Discuss to what degree they contemplate hydraulic fracturing activities
- Regulation of Hydraulic Fracturing in leading Canadian jurisdictions



Introduction – Limitations

- No legal advice
- No details regarding administration of the enactments or detailed application to any given fact scenario
- No consideration to current government policy or adopted practice or procedures
- No consideration of federal statutes that may apply to oil and gas activities in Yukon (e.g. *Fisheries Act*, *Canadian Environmental Protection Act*)



Introduction – The Key Statutes

- Any number of enactments may apply in any given case
- Key Statutes:
 - *Yukon Environmental and Socio-economic Assessment Act (YESAA)*
 - *Waters Act*
 - *Oil and Gas Act (YOGA)*
 - *Environment Act*
- Not covered, but important:
 - *Lands Act*
 - *Occupational Health and Safety Act*



Overview – Legislative History

- Most key statutes are not result of “normal” legislative process
 - Exception: *Environment Act*
- Many have connections to devolution or land claims
- Why Important? May constrain legislative options.



Overview – Legislative History

YESAA

- Federal statute enacted in 2003
- Fulfills obligations set out in c. 12 of Umbrella Final Agreement (UFA),
Development Assessment:
 - “12.3.1 Government shall implement a development assessment process consistent with this chapter by Legislation.”



Overview – Legislative History

YESAA (cont'd)

- Product of negotiation among Canada, Yukon and First Nations, within the parameters set under chapter 12 of UFA
 - “12.3.2 The parties to the Umbrella Final Agreement shall negotiate guidelines for drafting Development Assessment Legislation and these drafting guidelines shall be consistent with the provisions of this chapter.”
- Periodic reviews involve Yukon, but no direct legislative control
- Amendments few and far between, given UFA underpinnings and review/consultation process required



Overview – Legislative History

Waters Act

- Water under federal jurisdiction until devolved to Yukon in 2003
- UFA (1994) – Chapter 14, Water Management
 - provides for establishment of the Water Board and some of its jurisdiction
- Devolution (2003) - Devolution Transfer Agreement (DTA)
- DTA required that territorial legislation mirrored federal *Yukon Waters Act*:
 - “2.3 Prior to the Effective Date, the YTG shall introduce into the Legislature and support, as a government measure, legislation that: (a) **mirrors, to the extent practicable, ... the Yukon Waters Act (Canada)**...



Overview – Legislative History

YOGA

- Oil and gas under federal jurisdiction until devolved to Yukon in 1998
 - *Canada Petroleum Resources Act*
 - *Canada Oil and Gas Operations Act*
- Federal *Canada – Yukon Oil and Gas Accord Implementation Act (1998)* required Yukon legislation to enact legislation:
 - Respecting “regulation of activities and works... in a manner that is generally consistent with standards established under Federal Oil and Gas Legislation”
 - To “provide for an Oil and Gas legislative regime modeled after existing regimes in Canada”
- Memorandum of Agreement in respect of Oil and Gas in Yukon
 - Among Yukon and Yukon First Nation representatives
 - Establishes working group – convenes to review



Overview - Purpose and Scheme



Overview - Purpose and Scheme

YESAA & *Assessable Activities Regulation*

- High level planning tool
- Provides for neutral assessments of socio-economic and environmental effects of proposed projects
- Assessments consider scientific & traditional knowledge, and public views
- S. 42 of YESAA: factors that must be considered in assessment include:
 - purpose of the project, all stages of the project, cumulative effects, the significance of effects, alternatives to the project, mitigative measures, protection of FN rights, the interests of Yukon and Canadian residents, AND any other matter that it considers relevant to the assessment



Overview - Purpose and Scheme

YESAA & *Assessable Activities Regulation* (cont'd)

- Assessment required before licencing if:
 - 1) proposed activity would exceed any prescribed threshold,
 - 2) activity requires authorization, and
 - 3) is not excepted
- Steps: application for assessment → determination of adequacy → seeking views and information → assessment report → consideration by Decision Body → issuance of Decision Document



Overview - Purpose and Scheme

YESAA & *Assessable Activities Regulation* (cont'd)

- Assessments and recommendations are independent of government
- Assessment to determine whether will be any significant adverse socio-economic or environmental effects and, if so, whether those effects can be mitigated by specified terms and conditions
- Available recommendations:
 - Project be allowed to proceed
 - Project be allowed to proceed on specified terms and conditions
 - Project not be allowed to proceed



Overview - Purpose and Scheme

YESAA & *Assessable Activities Regulation* (cont'd)

- Decision Body: generally, a government (or its representative) that has authority to issue authorization required to enable the activity to be undertaken
 - There may be more than one
- Must consider evaluation report and information provided with it.
- Decision Document must accept; or, with reasons, vary or reject the recommendation
- Once Decision Document issued, regulators may issue required authorizations, but if issued must do so in accordance with the Decision Document



Overview - Purpose and Scheme

Waters Act & Waters Regulation

- Provides for administration of rights to water in Yukon
- Objects: “The objects of the Board are to provide for the conservation, development, and utilization of waters in a manner that will provide the optimum benefit from them for all Canadians and for the residents of the Yukon in particular.” (WA, s.10)
- Generally, Yukon administers and controls all rights in respect of water in Yukon (s. 3)



Overview - Purpose and Scheme

Waters Act & Waters Regulation (cont'd)

- Establishes the Water Board
- Administration of Act split between Water Board and Yukon Government (Environment/EMR)
 - Board authorizes water use (subject to approval of Minister of ECO in some cases – type A licences and type B, where public hearing held)
 - Environment & EMR – carries out inspections and enforcement



Overview - Purpose and Scheme

Waters Act & Waters Regulation (cont'd)

- A person may obtain rights in and to water in Yukon, including rights to deposit waste into water
- Prohibition on using water (WA, s. 6) or depositing waste into water (WA, s.7) without a licence
 - Water → inland water in Yukon, including water beneath the land
 - Waste → generally, a substance, or water containing a substance, in a sufficient concentration that if added to water “would degrade or alter, or form part of a process of degradation or alteration of, the quality of the water to an extent that is detrimental to its use by people or by any animal, fish, or plant” (also includes some specified substances identified by reference to federal statute and regulation)



Overview - Purpose and Scheme

Waters Act & Waters Regulation (cont'd)

- Despite Prohibition, no licence required if (WR, s.4):
 - No potential for significant adverse environmental effect;
 - Would not interfere with existing rights of other water users; AND
 - Satisfies criteria set out in schedule 5 of WR.
- Water Board may issue licence to allow for use or deposit of waste
 - Application may be made subject to public hearing
 - Broad power to impose terms and conditions (WA, s. 13) or require security (WA, s. 15)
 - May cancel licence where appears to be in public interest (WA, s. 16)



Overview - Purpose and Scheme

YOGA & Drilling and Production Regulations

- Comprehensive regulation of rights and activities specific to oil and gas development – here focus is well drilling and operations.
- Purposes of YOGA include: disposition of rights, economic, orderly, efficient, sustainable development of resource, maintenance of ecological processes and preservation biological diversity, safety, and local benefits. (YOGA, s.2)
- Provides for appointment of Chief Operations Officer
 - Issues most operational authorizations
 - Power to issue directions and orders that are legally binding
 - Ministerial appointment ensures a degree of independence



Overview - Purpose and Scheme

YOGA & Drilling and Production Regulations (cont'd)

- Regulated “upstream” operational phases of typical oil and gas development include:
 - Disposition of rights to oil or gas
 - **Drilling of well**
 - **Evaluation of well**
 - **Completion of well**
 - Production
 - Abandonment



Overview - Purpose and Scheme

YOGA & Drilling and Production Regulation (cont'd)

- YOGA provides framework, gives broad regulation making power (YOGA, s.65)
- Regulations provide detail – six regulations currently in force
- Comprehensive *Drilling and Production Regulation* primary regulation dealing with well drilling and operations
- Authorizations may be made subject to:
 - binding directions issued by COO (DPR, various)
 - any terms and conditions imposed in authorization (YOGA - s.9)
 - prescribed minimum standards



Overview - Purpose and Scheme

YOGA & Drilling and Production Regulation (cont'd)

- General scheme in respect of well-related activities:
 - Well Drilling: No drilling or well operation unless well licence (YOGA, s. 64)
 - Well Operations: Require Well Operation Approval before undertaking following well operations: completion, re-completion, change of service, workover, suspension, abandonment, re-abandonment (DPR, s. 6)
 - Evaluation:
 - Less involved evaluation methods must follow minimum standards and reporting requirements
 - More involved evaluations require COO approval (e.g. Formation Flow Test)
 - Inspection and Enforcement: broad powers, (YOGA, Part 4 and DPR, Part 14)



Overview - Purpose and Scheme

Environment Act

- Purposes include (EA, s. 5):
 - To ensure the maintenance of essential ecological processes and the preservation of biological diversity
 - To promote sustainable development in Yukon; and
 - To ensure the wise management of the environment of the Yukon
- Role in licencing phase may include:
 - Air Emissions Permits (*Air Emissions Regulation*, s.2, 12)
 - Storage Tank Permits (*Storage Tank Regulations*)
 - Special Waste Transportation or disposal permit (*Special Waste Regulation*)



Overview - Purpose and Scheme

Environment Act (cont'd)

- Role in Inspections and Enforcement may include:
 - Contaminated sites (*Contaminated sites Regulation*)
 - Spills (*Spills Regulation*)
 - Permit enforcement



Regime Review

- How do the key statutes interact during the typical phases of an oil and gas project?
- Next, will consider all of this in light of hydraulic fracturing!
- Phases:
 - **Disposition**
 - Assessment
 - Licencing
 - Operations
 - Reclamation and Closure



Regime Review – Disposition

- Except where specifically authorized in writing by Minister, must have disposition before may be authorized to undertake oil and gas operations [YOGA, 28(1)(e)]
- Issuance of a permit or lease → right to oil and gas, but no authority to undertake any regulated activity to pursue that right.
- Ministerial discretion whether to issue any disposition (as opposed to COO)
- Default right is to all oil and gas under that disposition, but may be limited to a particular, strata, zone, pool. (YOGA, s. 38 and Division 3)



Regime Review

Phases:

- Disposition
- **Assessment**
- Licencing
- Operations
- Reclamation and Closure



Regime Review – YESAA Assessment

- Assessment not required unless:
 - Proposed activity above prescribed threshold
 - No prescribed exception, and
 - Authorization required
- Thresholds and exceptions found in YESAA's *Assessable Activities Regulation*
 - Oil and Gas activities are specifically contemplated in Part 3 of the AAR
 - Includes: “drilling, operations, modification, decommissioning or abandonment of , or other activity in relation to, an oil or natural gas well...”.
 - No exceptions
- Authorization required? Considered in Licencing Phase



Regime Review

Phases:

- Disposition
- Assessment
- **Licencing**
- Operations
- Reclamation and Closure



Regime Review – Licencing

Water Licence

- Require Water Licence if (*WR*, s.4):
 - Prescribed circumstances identified in Schedules, Schedule 5 of *Waters Regulation* , includes:
 - Use of water for oil and gas exploration, or other industrial purposes
 - Deposit of waste into water as part of oil and gas exploration, production and processing, or other industrial applications; and
 - Other incidental circumstances, such as crossing waterways OR
 - If it is possible that the use may have a “significant adverse environmental effect”
 - If the use would interfere with other water users



Regime Review – Licencing

Water Licence (cont'd)

- Department of Environment is lead agency for Yukon Government at hearings and normally provides much technical information.
- Board makes independent licencing decisions, including imposition of terms and conditions
- Broad power to impose terms and conditions
 - Prior to enactment of specific mining laws, Water Licences were used to regulate all mining activity in Yukon



Regime Review – Licencing

YOGA

- If drilling new well, require Well Licence
- Require Well Operation Approval if undertaking prescribed well operation (DPR, s. 5)
- May require approval for other activities, including well evaluation (see, for example DPR, ss. 112- 115)
- Any of these may be issued by COO subject to terms and conditions



Regime Review – Licencing

Environment Act

- Licencing requirements will depend on whether activities trigger need for licence, as discussed above
- *Air Emissions Regulation* contemplates oil and gas specifically and prohibits the following without a permit:
 - “Production and exploration of oil and natural gas, including combustion products of flaring or burning petroleum and the release of petroleum vapours, but not including the release of combustion products or vapours that may occur during emergency flaring or burning” (AER, schedule 1)



Regime Review – Licencing

Lands Act

- May need incidental land use permits under the *Lands Act* for the use of the surface of territorial lands



Regime Review

Phases:

- Disposition
- Assessment
- Licencing
- **Operations**
- Reclamation and Closure



Regime Review – Operations

- Inspections to ensure compliance with permits/licences and regulated minimum standards
- Non-compliance may lead to remediation or stop-work orders, cancellation of authorization, prosecutions, or administrative penalties, depending on the circumstances
- *Occupational Health & Safety Act* also applies
 - Aimed at ensuring the health and safety of those working at workplace
 - This statute generally concerned with enforcing minimum standards
 - *Occupational Health and Safety Regulation* → detailed provisions aimed at oil and gas workplaces (Part 17), though more general standards may also apply



Regime Review

Phases:

- Disposition
- Assessment
- Licencing
- Operations
- **Reclamation and Closure**



Regime Review – Reclamation & Closure

- YOGA
 - generally deals with the abandonment of the well and the surface
 - well licences are issued with an indefinite term, and the licensee may be ordered to do any further abandonment work that may need to be done in the future
 - Failure to abandon properly may result in forfeiture of well abandonment deposit
- *Environment Act*
 - generally applies to remediation of contamination of the environment
 - “responsible party” will be liable for any future site remediation that may be required – which will normally be the licensee or operator of the well



Hydraulic Fracturing



Hydraulic Fracturing

- No Yukon statute...
 - explicitly permits or prohibits hydraulic fracturing
 - explicitly contemplates hydraulic fracturing
- Hydraulic fracturing would likely require at least one, if not multiple authorizations from different agencies:
 - YOGA: Hydraulic fracturing generally considered to be part of well completion → requires Well Operation Approval (DPR, s. 5), and/or well evaluation approvals.
 - Water Board: to extent that hydraulic fracturing caught by s.4 test → requires Water Licence
- If authorization required, would also require YESAA assessment



Hydraulic Fracturing

- No certainty that assessment would be favourable, or that any given authorization would be issued
- No certainty as to terms and conditions that might be imposed should authorization be granted, though broad authority to impose
- Any hydraulic fracturing operation would have to comply with all applicable minimum standards set out in the key statutes, for example:
 - YOGA & DPR contain provisions contemplating, among many other things, produced water (165), oilfield waste (164), contingency plans, protection of surface water (169), handling consumables (171), and others that OGR will be in a position to explain in further detail



Hydraulic Fracturing

- Would hydraulic fracturing be regulated adequately?
 - Need approvals that may be made subject to terms and conditions
 - Possible that many parts of it would be subject to applicable minimum standards
 - BUT, no treatment of any unique risks that hydraulic fracturing poses
- Key statutes have never been interpreted or applied to a hydraulic fracturing operation → unable to provide comfort as to whether there are any regulatory shortcomings



Hydraulic Fracturing

- If there are unique aspects of hydraulic fracturing not adequately treated in current regime, range of responses available:
 - Legislation – amendments to key statutes
 - Regulation – much of oil and gas is regulated at this level
 - Directives – technical requirements set by COO and having force of law
 - Policy – no force of law and subject to Ministerial discretion
- Note that given scheme of YOGA, legislating such details may be seen as inconsistent with that scheme, which generally defers to regulations



Hydraulic Fracturing – Leading Jurisdictions

- Alberta
- Canada
- British Columbia



Hydraulic Fracturing (Alberta)

- No explicit consideration in legislation or regulation
- Alberta Energy Regulator (formerly ERCB and equivalent to Yukon's COO) issued directive 083 (Hydraulic Fracturing – Subsurface Integrity)
- Addresses issues identified as being unique to hydraulic fracturing
 - Contamination of non-saline water, ensuring well integrity, preventing wellbore communication
 - Prohibited at depths less than 100m
- Many aspects of general regime apply to hydraulic fracturing operations – e.g. see, Directives 035, 059, 044, 050, 055, 058, 051, and 038



Hydraulic Fracturing (Canada)

- No explicit consideration in legislation or regulation
- National Energy Board (equivalent to Yukon's COO) issued "*Filing Requirements for Onshore Drilling Operations Involving Hydraulic Fracturing*"
 - 25 page document outlining filing requirements to allow regulator to assess applications and, where approved, impose appropriate terms and conditions
- As in Yukon, many aspects of general regime apply to hydraulic fracturing operations



Hydraulic Fracturing (BC)

- No explicit consideration in legislation or regulation
- Oil and Gas Commission (equivalent to Yukon's COO) has issued the following:
 - Safety Advisory 2010 – 03 – Communication During Fracturing Stimulation
 - Consultation and Notification Manual – February 2013
 - IL # OGC 09-07 – Storage of Fluid Returns from Hydraulic Fracturing Operations
 - Oil and Gas Water Use in BC – August 2010
 - Well Completion, Maintenance and Abandonment Guideline – Updated to April 2013
 - Well Drilling Guideline – August 2012
 - Well Permit Application Guideline – April 2013
 - Liability Management Rating Program – September, 2011
- Some specific to hydraulic fracturing, others general application but address issues with hydraulic fracturing.



Questions?