
Developing a New Compliance and Enforcement Framework at Indian Oil and Gas Canada

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EXECUTIVE SUMMARY

INTRODUCTION

The purpose of this project was to research, assess and report on compliance and enforcement (C&E) tools, procedures and activities used to regulate oil and gas production and development by drawing on the expertise of internal and external practitioners and examining the academic and grey literature. This report will be used by Indian Oil and Gas Canada to make informed decisions on its new compliance and enforcement policies and the development of its new compliance and enforcement unit.

Indian Oil and Gas Canada regulates oil and gas exploration and production on First Nation reserve land across Canada with a majority of the work focusing on First Nations located within the Western Canada Sedimentary Basin (Indian Oil and Gas Canada, 2015a). As a special operating agency of Indigenous and Northern Affairs Canada (INAC), the agency has a dual mandate to fulfill the Crown's fiduciary and statutory obligations related to the management of oil and gas resources on First Nations lands and to further First Nation initiatives to manage and control their oil and gas resources.

The primary research question for this project was: *What procedures and tools can be put in place to ensure Indian Oil and Gas Canada has greater capacity to address issues of non-compliance?* The problem is two-fold:

- IOGC's existing enforcement regime provides minimal tools to address minor and moderate violations of the *Indian Oil and Gas Act, 2009* and *Indian Oil and Gas Regulations, 1995*, which govern the exploitation of oil and gas in Indian lands, at both the legislative and policy levels.
- IOGC's operational process to contend with clients who are non-compliant is highly discretionary. This has decreased the organization's capacity and credibility when addressing issues of non-compliance across its regulatory compliance division, lease and royalty administration division and finance unit.

To answer this question, the research compared a number of compliance and enforcement activities, tools, classification systems, and monitoring and tracking functions across eight jurisdictions to identify common and promising compliance and enforcement practices in oil and gas sector regulatory agencies. Additionally, the research identified current compliance and enforcement practices at Indian Oil and Gas Canada and employees' opinions of these practices.

METHODOLOGY

The project utilized a mixed methods approach. The general research approach is to utilize a gap analysis, also known as a needs assessment to identify current practices of compliance and

enforcement within Indian Oil and Gas Canada and tools and practices available in other jurisdictions. Four distinct methods were utilized to obtain information on current practices, identify common practices and evaluate various elements of compliance and enforcement. The first method consisted of a literature review of compliance and enforcement theory and regulation. Secondly, a jurisdictional scan of eight jurisdictions was conducted to identify common and promising practices for enforcing oil and gas industry's compliance with regulations. Within Canada, Western Canada's oil and gas regulating bodies, Northern Petroleum Resources, the Alberta Energy Regulator, the National Energy Board, the British Columbia Oil and Gas Commission and the Saskatchewan Ministry of Economy's, compliance and enforcement policies and practices were reviewed. Internationally, the United States, the United Kingdom and Australia's compliance and enforcement practices and policies in both offshore and onshore oil and gas were reviewed. Canadian jurisdictions were viewed as most applicable as they are under similar legislative framework. In addition, most oil and gas activity regulated by Indian Oil and Gas Canada is located within the Western Canada Sedimentary Basin making compliance and enforcement policies in British Columbia, Alberta and Saskatchewan the most relevant. The United Kingdom, the United States and Australia were included as each jurisdiction has significant literature surrounding compliance and enforcement theory and practice.

Thirdly, internal and external interviews were conducted. External interviews with representatives from the five Canadian jurisdictions, conducted via telephone, intended to supplement the literature review and jurisdictional scan and obtain further information on current practices. Internal interviews were conducted in person and helped to identify the current compliance and enforcement practices at Indian Oil and Gas Canada and identify risks and concerns associated with both current and future compliance and enforcement practices. Lastly, a focus group with internal IOGC staff was conducted to identify key non-compliance issues and classify them according to risk assessment criteria and to solicit employees' opinions on compliance and enforcement practices.

FINDINGS

Key findings are divided into two sections: the literature review and jurisdictional scan and Indian Oil and Gas Canada's interviews and focus group findings.

The Literature Review and Jurisdictional Scan

The literature on compliance and enforcement and regulation was drawn from a variety of academic and grey sources in the oil and gas, environment and business sectors. Compliance and enforcement (C & E) policies and tools at oil and gas regulatory bodies have been largely informed by C&E literature in the environment sector. The literature review shows a shift towards a risk-based approach to compliance and enforcement and towards more frequent use of compliance-oriented tools across sectors.

The jurisdictional scan also demonstrates a shift towards a risk-based approach to compliance and enforcement and shift away from the traditional deterrence approach to enforcement within the oil and gas sector. There has also been a shift towards a more cooperative approach towards compliance and enforcement from the command-and-control model. An increase in focus on education and prevention in compliance and enforcement frameworks is also reflected in the literature. Differences in approaches are evident across jurisdictions and the frequencies of tools utilized also vary. Within the Canadian jurisdictions, two of five have a comprehensive compliance assurance program and policy. The Alberta Energy Regulator is the most enforcement focused and the British Columbia Oil and Gas Commission is the most compliance focused. Other factors such as the amount of enforcement officer discretion, monitoring and tracking functions, publishing enforcement actions and inspection criteria also fluctuate across jurisdictions.

Indian Oil and Gas Canada's Interviews and Focus Group

The interviews and focus group conducted at Indian Oil and Gas Canada provided an opportunity to understand current compliance and enforcement practices and issues at Indian Oil and Gas Canada in the Lease and Royalty Administration Division, the Regulatory Compliance Division and the Finance Unit. Eleven semi-structured interviews with employees in each of these areas were conducted and 14 individuals attended the focus group.

In general, units at IOGC have different processes to address non-compliers with some being more formalized than others. The units use a variety of formal and informal compliance and enforcement tools when dealing with non-compliers. The tracking and monitoring of non-compliance issues also varies across units. The top concern for IOGC employees is the lack of internal compliance and enforcement procedures and policies resulting in a lack of consistency in dealing with non-compliers. Other concerns include the lack of IOGC procedures and policies from external stakeholders, the lack of an available database to monitor and track non-compliance issues and the lack of an effective follow-up process for dealing with non-compliers. Employees participating in the focus group identified 41 non-monetary and monetary non-compliance issues across seven units and areas.

RECOMMENDATIONS

The general recommendations stemming from the literature review, interviews and focus group are outlined below. They intend to provide the client with options when making informed decisions on the new compliance and enforcement framework.

Recommendation #1: *Create a comprehensive compliance assurance and enforcement policy across the organization.*

Recommendation #2: *Develop a voluntary self-disclosure policy for contract holders to report non-compliances to IOGC and include it in the compliance and enforcement policy.*

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Recommendation #3: *Develop a communications plan and materials for reporting of non-compliance activities and incidents as well as education materials to be published on the IOGC website.*

Recommendation #4: *Include compliance and enforcement activities in future negotiated MOUs between the Provinces and IOGC*

Recommendation #5: *Monitor and track non-compliance activities on new or existing database*

Recommendation #6: *Follow standardized inspection processes, utilize a criteria risk-matrix and participate in enforcement officer training with an external agency (e.g. NEB).*

Recommendation #7: *Develop a performance measurement framework for monitoring and evaluating compliance and enforcement policy at IOGC*

CONCLUSION

The report outlines compliance and enforcement activities, tools and procedures across eight jurisdictions and identifies current compliance and enforcement practices at Indian Oil and Gas Canada. The report utilizes mostly grey literature as academic literature related to compliance and enforcement in the oil and gas sector is limited. The use of a risk-based approach to enforcement is evident across many of the jurisdictions assessed; however, methods for implementing this approach vary.

Overall, compliance and enforcement in the oil and gas sector is a complex field and regulatory agencies must balance the many factors including the amount of discretion given to enforcement officers and prioritization of high and low risk violations in order to encourage compliance and portray a compliance and enforcement regime that is proportionate, transparent, accountable, and efficient.

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ACRONYMS

AER – Alberta Energy Regulator

AUS DMP – Western Australia Department of Mines and Petroleum

BCOG – British Columbia Oil and Gas Commission

C&E – Compliance and Enforcement

IOGC – Indian Oil and Gas Canada

NEB – National Energy Board

NAO – Northern Affairs Organization (INAC)

PMRD – Petroleum Mineral Resource Directorate (INAC)

SK MOE – Saskatchewan Ministry of Economy

UK DECC – United Kingdom Department of Energy and Climate Change

US BLM – United States Bureau of Land Management

1.0 INTRODUCTION

Indian Oil and Gas Canada's (IOGC) is a special operating agency (SOA) within Indigenous and Northern Affairs Canada which regulates oil and gas production and development on First Nations land. IOGC has a dual mandate: "to fulfill the Crown's fiduciary and statutory obligations related to the management of oil and gas resources on First Nations lands and to further First Nations initiatives to manage and control their oil and gas resources," (Indian Oil and Gas Canada, 2015a, para.1). Its vision is "to become a modern regulator of First Nations oil and gas resources" (Indian Oil and Gas Canada, 2015a, para.2). The organization currently manages oil and gas resources of more than 50 First Nations with active oil and gas agreements (Indian Oil and Gas Canada, 2014).

IOGC recently undertook organizational restructuring that resulted in the establishment of a new compliance and enforcement unit in 2012, which recognizes the need for greater compliance and enforcement capacity and procedures within the organization. The objective of the new compliance and enforcement framework is to provide transparent, accountable, effective and efficient procedures and framework for stakeholders, consisting primarily of industry and First Nations. By doing so, IOGC hopes to reduce the number of non-compliance offences and improve its relationships with external stakeholders.

The problem is two-fold:

- IOGC's existing enforcement regime provides minimal tools to address minor and moderate violations of the *Indian Oil and Gas Act, 2009* and Indian Oil and Gas Regulations, 1995, which govern the exploitation of oil and gas in Indian lands, at both the legislative and policy levels.
- IOGC's operational process to contend with clients who are non-compliant is highly discretionary. This has decreased the organization's capacity and credibility when addressing issues of non-compliance across its regulatory compliance division, lease and royalty administration division and finance unit.

Currently, there are a wide range of monetary and non-monetary non-compliance issues addressed by various units and areas at IOGC. Monetary non-compliance issues range from underpayment of royalties to late rental payments. Non-monetary non-compliance issues range from surface trespass to threat to protected species at risk. The groups that deal with the most non-compliance issues at IOGC are the Finance, Royalty, Environment and Surface groups.

The primary research question being addressed by the project is *what procedures and tools can be put in place to ensure Indian Oil and Gas Canada has greater capacity to address issues of non-compliance?*

The project has two purposes. First to assist IOGC in establishing a more robust enforcement regime and developing appropriate tools to address minor, moderate and severe offences. The second is assist IOGC in establishing a procedure for categorizing offences and enforcement mechanisms and outline the roles and responsibilities of the new enforcement team.

Secondary research questions that are addressed include:

- Do the regulatory compliance division, lease and royalty administration division, and finance unit have different issues with respect to addressing non-compliers?
- Are the current enforcement mechanisms and procedures in the regulatory compliance division, lease and royalty administration division, and finance unit the same in dealing with non-compliers?
- What types of enforcement tools are available to regulate oil and gas production and development use? How effective are these? What is the frequency of the various enforcement tools utilized?
- What are the roles of inspectors and enforcement officers within the compliance and enforcement units in other jurisdictions? What is the current role of inspectors at IOGC?
- How does IOGC's auditing process affect compliance and enforcement across units in the organization?

The report will produce three deliverables for the client:

- *Literature review and jurisdictional scan*: overview and analysis of compliance and enforcement literature in the oil and gas, environmental and business sectors covering a variety of sources and eight jurisdictions
- *Interview and focus group findings*: summary of interview and focus group findings outlining IOGC's existing compliance and enforcement practices
- *Recommendations*: general recommendations to provide options for client with respect to next steps

BACKGROUND

This section consists of an overview of the client, the regulatory framework under which they operate and the federal/provincial jurisdiction under which IOGC operates.

1.1 PROJECT CLIENT

Indian Oil and Gas Canada, as a federal government entity, is a federal fiduciary body that regulates oil and gas on First Nation reserve land across Canada (Indian Oil and Gas Canada, 2015a). As a special operating agency of Aboriginal Affairs and Northern Development Canada, the agency is responsible for oil and gas exploration and production on First Nation reserve lands

across Canada, generally south of the 60th parallel with a majority of the work focusing on First Nations located within the Western Canada Sedimentary Basin (Indian Oil and Gas Canada, 2015a).

Since the mid-2000s, the Modern Act, Regulations and Systems (MARS) project has been one of IOGC's top priorities. The objective of the MARS project is to modernize the Act, regulations and systems at IOGC to reflect current practices in the oil and gas industry. The first phase of the project was complete in May 2009 with the granting of Royal Assent to the amended *Indian Oil and Gas Act* (Indian Oil and Gas Canada, 2014). The amended IOGA provides for modernized regulations that will align with provincial oil and gas regimes. Subsequent projects include the development of the new Regulations through a phased approach, business process modernization and informatics enhancements (Indian Oil and Gas Canada, 2014). Business process modernization consists of reviewing existing business practices and processes to ensure synergy and compliance, identifying and eliminating duplication of effort, and reducing red tape and streamlining procedures (Indian Oil and Gas Canada, 2014). Informatics enhancement consists of the development of RIMS2, a new version of RIMS, the operational database that stores information regarding all surface and sub-surface agreements, Indian interest wells and royalty entities. RIMS2 is expected to provide IOGC member and data exchange with the Petroleum Information Excellence system (PETRINEX) which is the provincial and industry recognized authoritative source for hydrocarbon volume and pricing information (Indian Oil and Gas Canada, 2014). An additional initiative under Informatics Enhancement is the interest statement automation project which intends to automate the collection of interest on late payments of trust funds (Indian Oil and Gas Canada, 2014). Lastly, the royalty management project intends to align IOGC with Alberta and Saskatchewan royalty regimes and develop new rule sets for dealing with over and underpayment situations (Indian Oil and Gas Canada, 2014).

On April 1, 2013, IOGC changed its organizational structure to consist of three divisions: the Regulatory Compliance division, the Lease and Royalty Administration division and the Planning and Corporate Services division (Indian Oil and Gas Canada, 2013). The new structure was designed to effectively implement, monitor and enforce the new regime. Under these divisions, there are 11 units, consisting of four sub-units and five groups, who deal with various non-compliance issues. These nine units and teams that deal with non-compliance issues are Environment, Technical Business Support, Resource Analysis and Compliance and Finance units and the Surface, Subsurface, Gas Cost Allowance (GCA), Royalty and Senior Petroleum Geologist teams. An overview of the organizational structure pertaining to non-compliance functions is shown in Appendix A.

The development of a new compliance and enforcement framework aligns with the MARS project goals to:

- “ensure that it has updated authorities to regulate the oil and gas industry in areas such as

the environment, compliance and royalty audit

- strengthen IOGC’s ability to enforce against Industry on behalf of First Nations and;
- increase the legal certainty of the regime which governs oil and gas activities on First Nations reserve lands” (Indian Oil and Gas Canada, 2015b, p. 5).

The enforcement module is one of the nine modules being assessed in the regulatory development process. After an initial analysis of its effectiveness, the organization identified that the existing enforcement regime provides minimal tools to enforce compliance (Dempsey, 2012). IOGC seeks to establish an enforcement team under the Regulatory Compliance division in the upcoming years to deal with issues of non-compliance across all units in the organization as well as modify its regulations and policy to create a more comprehensive enforcement procedure for the team to follow.

1.2 LEGISLATIVE FRAMEWORK

Indian Oil and Gas Canada operates in accordance to the *Indian Oil and Gas Act* and the Indian Oil and Gas Regulations. Other Federal legislation IOGC operates under includes provisions of the *Indian Act*, the *Canadian Environmental Assessment Act* and the *Financial Administration Act*.

IOGC has authorization to utilize a number of formal compliance and enforcement tools and activities under the *Indian Oil and Gas Act, 2009* and Phase I of the Indian Oil and Gas Regulations.

TABLE 1: FORMAL COMPLIANCE AND ENFORCEMENT TOOLS AND ACTIVITIES UNDER THE IOGA 2009 AND PHASE I OF THE IOGC REGULATIONS

Legislation	Provision	Tool/Activity
<i>Indian Oil and Gas Act, 2009</i>	s.5.(1)(a)	Order (suspension of exploration or exploitation of oil and gas if it (i) presents danger to property, risks wasting of oil or gas or risks disturbing or damaging an oil or gas reservoir, the surface land or environment or (ii) presents a risk of harm to a site of palaeontological, archaeological, ethnological or historical significance or to a site that is of cultural, spiritual or ceremonial importance to the First Nation
	s.9	Conduct and authorize inspections on First Nations lands or outside First Nations lands where oil or gas is handled, treated or processed
	s.10	Conduct an audit or examination of any documents or information relevant to the

		administration of the IOGA or regulations
	s.17(1)	A person who contravenes any provision of the IOGA other than a provision in relation to the payment of royalties or other amounts is guilty of an offence punishable on summary conviction and liable to a fine (maximum \$100,000)
	s.21(1)(b)	Governor in council may make regulations prescribing for each violation a penalty not exceeding \$10,000 (administrative monetary penalty)
<i>Phase I of the Indian Oil and Gas regulations</i>	s.86(1)	The Minister must send an offset notice to every subsurface contract holder that is obliged to pay a compensatory royalty if they become aware that a triggering well is in production.
	s.104(1)	A default notice may be issued by the Minister if contract holder breaches their contract, the Act or Regulations
	s.104(2)	The Minister may cancel a contract if the holder has failed to remedy a breach in accordance with s.104(1)

Adapted from the Indian Oil and Gas Act, 2009 and Phase I of the Indian Oil and Gas Regulations

The provisions give Indian Oil and Gas Canada the authorization to issue orders, fines of up to \$100,000, administrative monetary penalties up to \$10,000, default notices and cancel contracts (*Indian Oil and Gas Act, 2009*). It also enables employees at Indian Oil and Gas Canada to conduct audits, inspections and examinations (*Indian Oil and Gas Act, 2009*). Other informal compliance and enforcement tools including CEO to CEO letters, Directions to comply notices, phone calls, meetings and declarations are utilized by various units and teams at IOGC to encourage compliance.

1.3 FEDERAL/PROVINCIAL JURISDICTION

Indian Oil and Gas Canada, as a federal fiduciary body, has authority over “Indians, and Lands reserved for the Indians’ according to subsection 91(24) of the *Constitution Act, 1867*. However, the Provincial Government legislature according to subsection 92A.(1) of the *Constitution Act* has exclusive power to make laws in relation to exploration for non-renewable natural resources in the province; development, conservation and management of non-renewable natural resources and forestry resources in the province, including laws in relation to the rate of primary production and development, conservation and management of sites and facilities in the province for the generation and production of electrical energy. Due to this legislative overlap, there has been confusion and redundancy between provincial regulating authorities and IOGC with respect to compliance and enforcement actions and operations. Larger capacities of provincial regulating

authorities also contribute to informal delegation of compliance and enforcement responsibilities. IOGC is a unique regulatory body as it deals with issues of multijurisdictional regulation on a daily basis.

An interface agreement was signed between Alberta's Energy Resources Conservation Board (currently the Alberta Energy Regulator) and IOGC in 1995 that addressed inspections and spill notifications across Alberta and First Nations land (IOGC and ERCB, 1995). This agreement is in the process of getting updated and additional memorandums of understanding are being considered between provinces such as Saskatchewan and Ontario and IOGC.

1.4 ORGANIZATIONAL CHANGE MANAGEMENT

The Organizational Change Management (OCM) project will assist managers and staff to navigate the changes implemented at IOGC through the MARS project (Indian Oil and Gas Canada, 2015b). The focus of the project is to use change management principles and tools to develop customized processes for IOGC to effectively integrate changes (Indian Oil and Gas Canada, 2015b). In addition, the project will help to build leadership and management competency as well as internal capability to facilitate the changes so they cause minimal disruption (Indian Oil and Gas Canada, 2015b).

Change Management is defined as “the application of a structured process and set of tools for managing the people side of change to achieve a desired outcome” (Indian Oil and Gas Canada, 2015b, p.14). It consists of:

- a structured process that includes preparation, management and reinforcement;
- building manager and sponsorship competency (through training and OCM support) and;
- strategic capability (building the organization's capability to increase and accelerate changes within the organization)
- a good communication plan (p.14)

In 2014/2015, the OCM project focused on preparing the organization for implementation of the Phase I regulations by identifying gaps between the expected legislative and regulatory regime and current operations (Indian Oil and Gas Canada, 2015b). The projects future plans are to prepare for the second phase of regulations development and conduct a business needs analysis for the new RIMS2 system development (Indian Oil and Gas Canada, 2015b). The subsequent sections of the report are organized as follows. The Methodology section will outline the research approach and methods utilized throughout the report. The Literature Review will examine compliance and enforcement and regulation theory in the oil and gas, environment and business sectors. The Jurisdictional Scan will assess eight jurisdictions' compliance and enforcement processes and tools. The Findings will outline current compliance and enforcement practices at IOGC and across other jurisdictions. The Discussion and Analysis will compare compliance and enforcement practices, procedures and tools across eight different jurisdictions.

The Recommendations and Options to Consider will provide options for IOGC to implement when establishing the new compliance and enforcement framework.

2.0 METHODOLOGY AND METHODS

METHODOLOGY

The researcher utilized a mixed methods approach to analyze data. This approach argues that philosophy and methodology can be separated and elements of each can be utilized in order for the researcher to conduct comprehensive research analysis (Cook and Reichardt, 1979). The mixed methods methodology is the best approach for answering the research question as it enables the researcher to collect both quantitative and qualitative data from participants to further assess operational issues and procedures within Indian Oil and Gas Canada. Although quantitative data was collected, the analysis is primarily qualitative. According to Creswell (2003), quantitative data can be turned into qualitative data through judgements and qualitative data can be turned into quantitative data through coding. As part of the pragmatist paradigm, this methodology will allow the researcher to integrate analysis and findings to draw comprehensive conclusions.

The general research approach is to utilize a gap analysis, also known as a needs assessment to identify current practices of compliance and enforcement within Indian Oil and Gas Canada. In addition, the researcher conducted a jurisdictional scan which assessed smart practices across eight jurisdictions to identify various trends in current compliance and enforcement practices. The five Canadian jurisdictions were chosen as they all regulate oil and gas production and development in the Western Sedimentary Basin. The three international jurisdictions were chosen as they all have extensive compliance and enforcement practices in the oil and gas sector.

Questions in the interview and focus group phase were based on eight key criteria: the classification of enforcement actions, escalation of enforcement, inspection processes, audit processes, communication/educational materials utilized, reporting requirements, monitoring requirements and systems, and the array of compliance and enforcement tools utilized.

METHODS

Two different methods were utilized to gather information in the study. These methods required an ethics approval application be submitted to the University of Victoria's Human Research Ethics Board and the application was approved on August 12th, 2015.

Internal Interviews

The researcher conducted 11 semi-structured internal interviews to identify the number and types of non-compliance letters issued by the organization in the past five years as well as the current roles of key employees across the regulatory compliance division, lease and royalty administration division and finance unit. The semi-structured interview format was chosen to allow for flexibility for both the researcher and interviewee and help to facilitate open dialogue. Although some questions were formed prior to the interview, many were asked based on the responses of the interviewee. Interview questions were developed based on findings from the jurisdictional scan and general processes of compliance and enforcement. The goal of the interviews was to identify themes and potential trends of non-compliance offenders and offences within and across divisions and units. Invitations to participate in interviews were sent out to 16 employees indicating a 62.5% response rate to the invitation to participate in the study. Typed notes were taken for each interview with a password protected laptop. After the interview, participants were asked to provide the number of non-compliance tools, directions to comply and CEO to CEO letters, they issued in the past five years (2009/2010 to present) as well as the number of inspections and audits that were conducted. For the recruitment email sent to internal IOGC staff for interviews and participant consent form see Appendix B and C.

Internal Focus Group

In addition, the researcher conducted one focus group to get employees' opinions on the current and future compliance and enforcement operations and identify non-compliance issues across the organization. Fourteen individuals attended the focus group across seven units and teams: environment, royalty, technical business support, finance, surface, subsurface and resource analysis and compliance. The focus group was organized in three parts. The first part asked teams to write down non-compliance issues that they deal with and put them on a risk matrix taking into account impact factors (finance and legal, environment, First Nation and stakeholder trust and public opinion, and service delivery) and likelihood (frequency of occurrence) as well as any additional factors they specified. The second part asked participants to look at the current compliance and enforcement tools and activities authorized by the IOGA and regulations and identify potential issues or other tools they need to utilize to address their specific non-compliance issues. The final part asked participants to identify issues or concerns surrounding current compliance and enforcement practices at IOGC and rank their top three highest concerns. There was also opportunity to give suggestions on how to address these issues and provide any additional comments.

Interviewees who indicated they would like to participate in the focus group were invited to participate as were other employees whose job descriptions indicate involvement in compliance and enforcement processes through an employee-wide email. The recruitment email sent to internal IOGC staff for participation in the focus group is shown in Appendix D and participant consent form is shown in Appendix E.

External Interviews

Additional interviews, four in total, were conducted with each of the Canadian regulatory bodies via telephone, which further informed the jurisdictional scan. The interviews sought to better understand compliance and enforcement processes in the respective organization and the frequency of enforcement actions utilized per year utilizing the seven criteria mentioned in the methodology section. The Petroleum and Mineral Resources Management Directorate of Northern Affairs organization declined the invitation for an interview and therefore information about their compliance and enforcement practices is limited. The recruitment email for external interviewees and participant consent form is shown as Appendix F and Appendix G respectively.

Data Analysis

After the interviews and focus groups were complete, a transcript was generated from the notes and key themes were identified within IOGC and across the external regulatory bodies. Supporting documentation was also reviewed and included in the thematic analysis. Key findings are presented in graph and chart form in the Findings section.

3.0 LITERATURE REVIEW

Overview

A literature review was conducted to identify major trends in compliance and enforcement theory across the onshore and offshore oil and gas, environment and business sectors across of multitude of jurisdictions. It also sought to identify various compliance and enforcement procedures and tools utilized by oil and gas regulatory bodies in both Canadian and International jurisdictions. To analyze the literature, constant comparison analysis was utilized. Constant comparison analysis is a method of analysis in qualitative research utilized to identify common themes in literature (Onwuegbuzie et al., 2012, pg. 12).

The review looked at three main aspects of compliance and enforcement. The history of compliance and enforcement theory and practices, which has mostly evolved in the environmental and business sectors; the current themes and C&E practices in the onshore and offshore, in the case of the UK, oil and gas sector and the various enforcement and compliance tools utilized. Both published and unpublished journal articles, government reports and audits and books were included. Using phrases such as “compliance oil and gas” “enforcement oil and gas” “compliance tools oil and gas,” searches were conducted on Google and UVIC summons and hundreds of articles were identified. The websites of oil and gas regulatory bodies were also perused and procedure manuals, directives, legislation and reports were utilized for the review. Overall, many articles were excluded from further review if they were not in the environment, oil and gas or business sectors and if they discussed aspects of compliance and enforcement other than procedures, activities, tools or theory. The majority of literature found was grey literature from government documents and reports.

Compliance and Enforcement

Compliance and enforcement, as a stage of the regulatory process, has gained momentum in literature and in practice since the 1970s in conjunction with the modern conservation movement. It is considered to be the last of three stages of the regulatory process classified as “bringing to bear rules on persons or institutions sought to be influenced or controlled,” (Baldwin and Cave, 1999, p. 96). This section defines compliance, outlines the styles of

compliance and enforcement approaches and current status of compliance and enforcement in scholarly literature. It also discusses two emerging trends in compliance and enforcement literature, the shift towards risk based regulation and creative sentencing.

According to Baldwin and Cave (1999, p. 97), compliance is considered to be an umbrella term and is secured through two types of activities: promotion and enforcement. The first definition of compliance is “obedience by a target population with regulations.” The literature on this usage focuses on the extent to which populations comply with regulations and their reasons for doing so using various approaches such as cost-benefit analysis, social norms and group psychology. The second use of compliance emerged as a style of regulatory enforcement strategy. Compliance is described as a co-operative, persuasive and self-regulatory approach of regulatory enforcement which juxtaposes the more formal and retributive deterrence approach.

A multitude of regulatory strategies have emerged in literature in the past 30 years. They have conflicting perspectives on their impact and effectiveness. The traditional deterrence approach, also known as “command and control” is “the exercise of influence by imposing standards backed by criminal sanctions,” (Baldwin and Cave, 1999, p.35). It is grounded in the notion that all corporations have profit maximization as their main goal and therefore will only comply with regulatory requirements when the penalties are heavy enough to outweigh the benefits of non-compliance utilizing cost-benefit analysis to determine this (Scholtz, 1984). Economic motives are seen to be the dominant incentive in this approach (Nielson and Parker, 2012). The United States was a main proponent of this approach as discussed below. Over the 1990s and 2000s, the command and control approach has been critiqued by numerous academics such as Wilson (2004), who states that command and control leads to polarization between the regulator and company and Scholz (1984) who states that battling evasive firms results in high legal costs. Other regulatory approaches that have emerged based on economic motives include incentive-based regimes where the regulator imposes negative or positive taxes to induce behavior in accordance with public interest and market-harnessing controls which sustain market competition to prevent unfair practices (Baldwin and Cave, 1999).

The cooperative approach emerged after a number of studies, primarily in the UK, conducted empirical tests of the deterrence model and determined that, in most cases companies do not consciously calculate the costs and benefits of compliance (Kagan and Scholz, 1984). The cooperative inclined to comply with the law, partly because of belief in the rule of law, partly as a matter of long-term self-interest,” (Kagan and Scholz, 1984). The theories of bounded rationality and the new institutional theory in economics are utilized to explain companies’ compliance under this approach. Under bounded rationality, the limited capacity of people and organizations ability to process information in decision making means that many do not make cost-benefit calculations about compliance. Rather, they are reactive when the risks of non-compliance are brought to management’s attention through crisis (Thornton, Gunningham and Kagan, 2005). Additional studies on the cooperative strategy indicated that officials prefer to use

strategies of education, persuasion and co-operation to persuade businesses to voluntarily comply with rules and these informal moralizing mechanisms are more effective in promoting compliance than formal punitive features ingrained in the deterrence approach (Nielson and Parker, 2010). New institutional theory in economics recognizes that individuals and enterprises do not always make decisions solely on the basis of financial calculation but on various other social and environmental factors including their own values and legitimacy. Institutional isomorphism is a term coined by DiMaggio and Powell (1991) to explain how organizations adopt practices and structures from their social environments beyond what is strictly required by the technical and financial parameters under which they operate.

The distinction between the cooperative and deterrence approaches to enforcement is emphasized by a number of scholars from the mid-1980s to late 1990s including Reiss, Friedrichs and Hawkins. After the introduction of the cooperative approach, a multitude of other approaches emerged to juxtapose the command and control model. A more holistic and interdependent approach using both cooperative and deterrence approaches was introduced by Ayres and Braithwaite's pyramid of enforcement strategies. The pyramid of enforcement is premised on the notion that regulators and policy makers should encourage voluntary compliance first, using more punitive regulatory measures only when that fails. According to Ayres and Braithwaite (1993), allowing industry the discretion and responsibility to implement self-regulatory reform first, rather than moving straight to deterrence mechanisms will enable governments to be more successful in achieving their regulatory goals. The notion of a self-regulatory approach emerged as a result of fiscal constraint on governments and regulatory agencies (Sinclair, 1997). It is achieved through developing a system of rules that monitor or enforce against its own members and seen as "a means of avoiding the pitfalls of direct regulation and of doing so at considerably less cost to government," (Baldwin and Cave, 1999; Sinclair, 1997, p.530). Another interdependent approach is smart regulation, developed by Gunningham et al (1998) which advocates utilizing a combination of instruments and parties to regulate environmental policies. The authors encourage the use of specific regulatory design principles by regulators and suggest that the pyramid should not consist solely of government regulation but that regulation by second parties and third parties should be utilized.

The perspective of regulatory pluralism or viewing regulation and compliance as multi-faceted across governments, corporations, professional groups and associations, is the dominant regulatory perspective for modern policy makers and regulators. A proper understanding of compliance and regulation involves not just an understanding of regulators' strategy, but of the regulatory space in which government regulation operates (Hancher and Moran, 1989). The concept of "beyond compliance" has emerged in literature in the past decade. The concept argues that many corporations no longer perceive their social obligations as necessarily synonymous with legal obligations. Community groups and non-government organizations have come to play important roles in pressuring corporations to curb their adverse social impacts and as a result, companies strive to obtain their social license going "beyond compliance" even in circumstances

where they are unlikely to be profitable (Thornton, Gunningham and Kagan, 2005). In addition, other scholars such as Gunningham (2015) identify seven different intervention strategies which regulators use to develop their policies and procedures: advice and persuasion, deterrence, responsive regulation, risk-based regulation, smart regulation, meta-regulation and criteria strategies. He views the principle criteria for choosing an intervention strategy as effectiveness and efficiency. The tendency towards a regulatory policy based on performance rather than command-and-control based rights and obligations create new challenges compliance and enforcement in regulations.

Oil and Gas Regulation in Canada

The National Energy Board (NEB) was established in 1959 based on Prime Minister Diefenbaker's Royal Commission on Energy, which recommended that a national energy board be established (National Energy Board, 2015). The NEB was defined as an independent court of record and became responsible for pipelines, oil, gas and electricity exports, and regulating tolls and tariffs (National Energy Board, 2015). Prior to this, pipeline and energy exports were regulated through the Board of Transport Commissioners and the Ministry of Trade and Commerce. Key federal acts governing oil and gas include the *Canada Oil and Gas Operations Act, 1985* and the *Canada Petroleum Resources Act, 1985*.

Currently, provinces have authority over the exploration and development of energy resources and this function is assigned to either an independent regulatory tribunal, like the Alberta Energy Regulator or may be under the control of a government ministry like the Saskatchewan Ministry of Economy. The creation of the Alberta Energy Regulator (AER) through the *Responsible Energy Development Act* in March 2014 to regulate upstream oil, gas, oil sands, coal and related activities is a new regulatory development in the sector. These activities were previously administered by two agencies, the Energy Resource Conservation Board and the Alberta Environment and Sustainable Resource Development. The creation of the AER amalgamates their functions into a single regulating agency (Duffy, Grant, La Flèche and Zacher, 2015).

Shift to Risk-based (Performance-based) Regulation

The emergence of risk-based regulation, also known as performance-based regulation paralleled the emergence of new public management. It juxtaposes prescriptive regulation which sets specific technical or procedural requirements, with which regulated entities must comply (Deighton-Smith, 2008). It focuses on ensuring conformity with specified requirements. Performance-based regulation identifies functions or outcomes for regulated entities but allows them considerable flexibility to determine how they will undertake functions and achieve outcomes. In this approach, regulators define standards that companies meet and use audits and inspections to ensure that they achieve specified performance standards or goals (Deighton-Smith, 2008). The adoption of this approach put pressure on regulators, forcing them to legitimize their own activities and operations. Regulators had to demonstrate that they were

performing both efficiently and effectively and account for the allocation and prioritization of their resources. A review of regulatory initiatives suggests that agencies taking a comprehensive systemic risk-based approach to regulation are noticeable in the UK and USA and increasingly common in Australia and Canada. Commitments to risk-based approaches vary between domains and over time.

Risk-based frameworks are becoming increasingly seen as a necessary attribute of better regulation (OECD, 2010). The term risk-based regulation embraces a very broad range of approaches. Risk-based regulation is defined as (1) regulation of risks to society (2) loose collection of approaches expressed in terms of risk (3) the use of firm's own internal risk models to set capital requirements in banking and insurance regulation (4) systematized decision making frameworks and procedures to prioritize regulatory activities and deploy resources, principally relating to inspection and enforcement, based on an assessment of the risks that regulated firms pose to the regulator's objectives (OECD, 2010, p. 187). The fourth definition is most applicable to this report. According to the OECD (2010), risk-based frameworks contain choices about what matters to that regulatory agency and what does not. This intends to improve regulatory efficiency by offering "targeted" and "proportionate" interventions in areas such as compliance assessment and enforcement.

There are three main reasons for regulators to adopt risk-based frameworks. First, regulators have turned to risk-based frameworks in an attempt to improve the way in which they perform their functions; to facilitate the effective deployment of scarce resources and to improve compliance within those firms that posed the highest risk to consumers or the regulators' own objectives (OECD, 2010). Second, risk-based frameworks have been adopted to address a range of internal organizational concerns, in particular they have been introduced to provide a common framework for assessing risks across a regulatory body and to deal with mergers of regulatory bodies (OECD, 2010). They have also seen it as a way in which to improve internal management controls over supervisors or inspectors. Third, risk-based frameworks have been adapted as a response to previous regulatory failures and to provide a political defense for a regulator against claims of over or under regulation (OECD, 2010).

There are four main elements of risk-based regulation. First, they require a determination by the organization of its own risk appetite – what type of risks is it prepared to tolerate and at what level. It is usually driven by political risks. Second, risk-based frameworks involve an assessment of the hazard or adverse event and the likelihood of it occurring. Third, regulators assign scores and/or ranks to firms or activities on the basis of these assessments. Fourth, risk-based frameworks provide a means of linking the organization and of supervisory, inspection and often enforcement resources to the risk scores assigned to individual firms or system-wide issues (OECD, 2010).

The criteria distinguishing each regulatory approach and the pros and cons of performance-based versus prescriptive regulation are identified in Table 2.

TABLE 2: CRITERIA, PROS AND CONS OF PRESCRIPTIVE AND PERFORMANCE-BASED REGULATION

Prescriptive		Performance-based	
<ul style="list-style-type: none"> • Very detailed in nature • Outline actions, technologies. Procedures and the means by which to achieve compliance • Not purely risk oriented • Regulatory authorities define the requirements • Regulatory agencies monitor compliance based on check list type approach to requirements met 		<ul style="list-style-type: none"> • Emphasis on goals that must be achieved but do not specify means to reach goals • Risk-based and focused • Requires regulators to be able to measure, monitor and communicate on performance of regulated entities • Operator’s responsibility to make sure they as a minimum meet requirements 	
Pros	Cons	Pros	Cons
Clarity in what is required of industry and how they comply	May not encourage innovation	Identification of performance goals allows focus on goal no methods	Requires more analysis and documentation to verify performance
Specific protections desired by the public and stakeholders can be required	May limit an operator’s willingness to go beyond compliance	Specific outcomes desired by the public and stakeholders can be required	Requires a well—trained and active regulator
	Encourage passive attitude among companies (wait for regulator to inspect, find deficiencies and impose enforcement actions)		Subject to interpretation

Adapted from Deighton-Smith (2008) and Banks (n.d.).

Shift towards Creative Sentencing

The shift towards creative sentencing as a means of prosecution has been used when dealing with environmental cases. Since the late 1980s, sentencing provisions in environmental legislation in Canada have been amended to include creative sentencing options which are seen to achieve greater environmental protection than traditional approaches (Hughes and Reynolds, 2009). A variety of improvements were made to both administrative and quasi-criminal compliance mechanisms. Creative measures were added to statutes including “license revocation, forfeiture of property, restitution, prohibition, remedial and prevention orders, modifications to business

operations, research orders, notification and publication orders, information orders, community service, probation, compensation and performance bonds” (Hughes and Reynolds, 2009, p.112).

Creative sentencing can require the offender to (Eacott, 2006):

- remedy the environmental harm from the offence;
- compensate the government for its costs of remedial measures due to the offence;
- publish articles on the offence;
- pay for environmental conservation projects;
- develop and/or implement management or training plans;
- pay, in addition to a fine, an amount equal to the profit accrued from the offence; and
- perform any other conditions the Court considers appropriate (p. 1)

Under prosecution, traditional approaches include fines and imprisonment; however, creative sentencing options have emerged as an option to achieve greater environmental protection than traditional approaches (Hughes and Reynolds, 2009). In general, the use of the criminal process via prosecution is seen to be the most severe enforcement option (Hughes and Reynolds, 2009). In modern statutes, prosecution is one the compliance mechanisms that form an enforcement ladder or spectrum of gradually escalating enforcement activities designed to secure compliance with the prescribed standards. Creative sentencing moves away from solely using fines for environmental offences and may incorporate features present in conciliatory and cooperative compliance regimes but impose them on a non-voluntary basis. Canadian courts retain a great deal of discretion in how they craft environmental sentences, but remain hampered by a traditional fine-centric economics approach. According to Campbell (2004), Canadian judicial attitudes are slowly moving away from the exclusive use of fines for environmental offences in favor of creative sentences. Creative sentencing is in line with the “beyond compliance” approach to regulation which identifies company’s social obligations as an important aspect of compliance.

4.0 FINDINGS

This section is divided into two main sections. The first identifies the findings associated with the current compliance and enforcement practices at Indian Oil and Gas Canada through internal interviews and the focus group. The second section identifies the findings associated with the jurisdictional scan through secondary research and the external interviews conducted.

SECTION I: CURRENT COMPLIANCE AND ENFORCEMENT PRACTICES AT INDIAN OIL AND GAS CANADA

The current compliance and enforcement practices at IOGC section is divided into two parts. The first identifies the frequency of compliance and enforcement tools utilized by the nine units and groups at IOGC and outlines the current processes and criteria used to address non-compliers and the second discusses employees' opinions on issues and concerns of the current compliance and enforcement practices.

Indian Oil and Gas Canada does not have a formal, structured enforcement program under existing policies or procedures. There is also no comprehensive compliance assurance framework that the organization abides by. Within the organization, the nine units and groups who deal with non-compliance have varying degrees of formalization, procedures and standards utilized by employees to address non-compliance issues. Levels of discretion also vary between and within units when determining what enforcement actions to utilize. Prior to the amendments to the *Indian Oil and Gas Act* in 2009, IOGC had few formal compliance and enforcement authorities and relied primarily on informal mechanisms such as directions to comply and meetings to deal with non-compliers.

During the focus group, IOGC staff was asked to identify non-compliance issues that their respective units/areas deal with. Forty-one issues were identified and interaction with other IOGC units/groups was outlined. In addition the groups were asked to identify their non-compliance issue as high, medium or low risk depending on the likelihood, frequency of occurrence and impact factors such as financial and legal implications, environmental impact,

service delivery and First Nation, stakeholder and public confidence See Appendix H for table on non-compliance issues identified by IOGC units and areas.

PART A: FREQUENCY OF COMPLIANCE AND ENFORCEMENT TOOLS UTILIZED BY IOGC AND CURRENT PROCESSES AND CRITERIA USED TO ADDRESS NON-COMPLIERS

The following is presented to outline the limited nature of the data available at Indian Oil and Gas Canada within the realm of compliance and enforcement rather than to identify trends. The data establishes a baseline for future performance measurement and tracking of compliance and enforcement within Indian Oil and Gas Canada. It contributes to the needs assessment by identifying the tools utilized within various units and areas at IOGC and current processes and tracking tools utilized by these areas.

Royalty Unit

TABLE 3: NON-COMPLIANCE ISSUES IDENTIFIED BY THE ROYALTY UNIT (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Royalty Unit	Late payment of royalty dollars	Finance	High
	Large under/over payments	Finance	High
	Small companies going bankrupt and failing to pay royalties	Finance, Resource Analysis and Compliance	High
	Implementing AB/SK royalty change	Finance	High
	Non-submission of royalty data	Finance, Resource Analysis and Compliance	Med
	Transfer of royalty payer Indian interest	Finance	Med

The royalty unit deals with six non-compliance issues indicated in Table 3 above. The two main non-compliance issues dealt with by the royalty team are: missing submissions and the underpayment of royalties (IOGC employee, personal communication, August 17, 2015). With respect to missing submissions, an automatic email generated through RIMS is sent out to companies outlining what is outstanding per month. Based on this, a direction to comply (DTC) is generated through RIMS and issued manually asking companies to submit missing royalty payments within 30 days. The number of directions to comply issued by the Royalty team in the past five years is represented by Table 4. After the DTC is issued and not rectified, IOGC negotiators may informally meet with the companies to attempt to rectify the non-compliance

issue. If the issue isn't rectified until then, the lease may be cancelled; however it is rare for a lease to be cancelled due to outstanding royalties.

With respect to underpayments, an email is sent out manually asking companies to rectify the issue. Approximately 2 to 3 emails are sent out per year. No enforcement actions are utilized for late payments of royalties; however, the Interest Statement Automation project is currently being implemented at IOGC, which automates the collection of interest on late payments (IOGC employee, personal communication, August 17, 2015).

TABLE 4: DIRECTIONS TO COMPLY ISSUED BY ROYALTY TEAM FOR MISSING SUBMISSIONS (2009-2014)

Year	Direction to Comply issued
2009-2010	1724
2010-2011	1065
2011-2012	1227
2012-2013	2757
2013-2014	2097

Gas Cost Allowance Team

TABLE 5: NON-COMPLIANCE ISSUES IDENTIFIED BY THE GCA TEAM (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
GCA Group	Non-submission of GCA	Technical Business Support Group	Not specified

The GCA team deals with one major non-compliance issue: failure to submit annual gas cost allowance by May 31st. Gas cost allowance offsets the capital and direct operating costs associated with processing the Crown's share of gas and transporting the Crown's share of gas through a producer-owned sales line (British Columbia Oil and Gas Commission, 2014). If companies do not submit GCA costs in the required timeframe and do not have permission for extension by the GCA Supervisor and Director of Land and Royalty Administration Division, IOGC sets the applicable facility cost center (FCC) rate at zero and the rate will be utilized in calculation of the royalty entity number (REN) GCA rate for the applicable period. No further enforcement action is required for the failure to submit annual GCAs. The number of non-submissions for the past five years is shown in Table 5 (IOGC employee, personal communication, August 13, 2015).

TABLE 6: MISSING GCA SUBMISSIONS (2009-2013)

Year	Missing GCA Submissions
2009	11
2010	9
2011	4
2012	15
2013	18

*Finance Unit***TABLE 7: NON-COMPLIANCE ISSUES IDENTIFIED BY THE FINANCE UNIT (SEPT 2015)**

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Finance Unit	Statements go to wrong company		High
	Company report payment allocations not correctly or not at all		High
	Using incorrect remittance forms for payments		High
Surface Group	Rental defaults	Finance, Resource Analysis and Compliance	High

The finance unit deals with four major non-compliance issues, three directly and one on behalf of the surface group. With respect to failure to pay surface rent, the unit generates a direction to comply on RIMS and manually faxes and mails the notice to non-compliant companies. If the Direction to Comply isn't rectified within 60 days, Finance will link to the Surface group in order for them to consider cancelling the lease (IOGC staff, personal communication, August 14, 2015).

The total number of directions to comply issued by the Finance unit between 2009 and 2014 was 1695. The number of directions to comply for each year was unavailable.

*Surface Group***TABLE 8: NON-COMPLIANCE ISSUES IDENTIFIED BY THE SURFACE GROUP (SEPT 2015)**

Surface Group	Surface trespass without a lease	Resource Analysis and Compliance	High
	Rental defaults	Finance, Resource	High

		Analysis and Compliance	
	Operating prior to approval (assignment)		High
	Lingering lease (no minerals)		High
	Surface trespass (expired seismic license; no minerals)	Resource Analysis and Compliance	Low
	Surface trespass (existing lease)	Resource Analysis and Compliance	Low

There are six types of non-compliance offences which are addressed by the surface group. Trespass is currently enforced based on company self-disclosure as there is no system to determine trespass and a lack of capacity to investigate (IOGC employee, personal communication, August 18, 2015). Non-submission of rental payments is initially dealt with by finance and there is no formal process for follow-up with companies who continue to avoid payment.

Subsurface Group

TABLE 9: NON-COMPLIANCE ISSUES IDENTIFIED BY SUBSURFACE GROUP (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Subsurface Group	Subsurface trespass		High
	Non-application for service wells		Low
Resource Analysis and Compliance Unit	Drainage	Subsurface	Medium

There are three non-compliance issues that subsurface group monitors: subsurface trespass, non-application for service wells and drainage which is dealt with by the Resource Analysis and Compliance unit (IOGC Focus Group, personal communication, September 22, 2015). The group is not responsible for issuing directions to comply but have cancelled five subsurface leases in the past five years (see Table 11).

TABLE 10: SUBSURFACE LEASES CANCELLED (2009-2014)

Year	Subsurface Lease Cancellations
2010-2011	1
2011-2012	0
2012-2013	0

2013-2014	2
2014-2015	2

Senior Geologist

TABLE 11: NON-COMPLIANCE ISSUES IDENTIFIED BY THE SENIOR GEOLOGIST (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Senior Geologist	Failure to submit application for continuance	Subsurface	Not specified

There is one area of non-compliance that the senior geologist deals with. According to section 25(1) of the Indian Oil and Gas Regulations, a determination must be made in regards to the continuance of subsurface mineral leases. Six months before expiry, an application for continuance must be submitted to IOGC. If the company fails to submit an application for continuance, IOGC will make the determination and manually send the company a letter by email telling them what will be continued. A presentation is also required to First Nations from the company regarding continuance; however, these are on a request basis. Currently, it is rare for companies to not submit a continuance application. Overall, the enforcement actions available are to issue directions to comply or to cancel a lease; however neither is utilized in this area. Subsurface contract analysts and the administrator are responsible for entering and making necessary adjustments to rental payments due to continuance.

Environment

TABLE 12: NON-COMPLIANCE ISSUES IDENTIFIED BY THE ENVIRONMENT UNIT (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Environment Unit	Well/pipeline failure	Surface	High
	Incidents (100 m or 50 m H2O body)	“	High
	Proximity to residents	“	High
	Cultural and heritage resources	“	High
	Sour wells	“	High
	Major housekeeping	“	Med
	Moderate housekeeping	“	Med
	Minor housekeeping	“	Low
Batteries and compressor sites –	“	Med	

	higher risk for incidents		
	Species at Risk (Mod to High) – protected, special concern	“	Med

There are ten areas of non-compliance the environment unit deals with and two compliance activities: environmental audit requirements and inspections. The unit has drafted procedures and policies pertaining to these functions and developed process maps for environmental analysts to follow.

With respect to environmental audit requirements, the terms letters attached to the surface lease indicate requirements for the following audits (Environment Unit, 2015):

- Seismic: 1 year
- Wellsites: beginning in 1995, 1 year after construction and every 5 years thereafter
- Batteries and Compressors: beginning in 1995, 1 year after and every 3 years thereafter
- Pipelines: beginning in 2013, 2 years after and every 10 years thereafter; from 2005 to 2013, 1 year after installation and no additional requirements

A reminder email to submit audits is sent annually in the spring and is manually generated by a member of the environment team utilizing the RIMS system. If no audit is submitted, the Manager sends a Direction to Comply to supply audit report by December 31st of year two. If no response is received, the Manager sends a CEO letter in February to supply audit report by December 31st of year three (CEO to CEO letters). If non-compliance continues, there are a number of potential options provided including enforcement actions and requesting joint inspections with the province. The process map has yet to be implemented in practice (IOGC employee, personal communication, August 25, 2015). The number of DTCs and CEO to CEO letters issued for Environmental Audits are indicated in table 12 and 13.

TABLE 13: DIRECTIONS TO COMPLY ISSUED FOR ENVIRONMENTAL AUDITS (2009-2014)

Year	Directions to Comply issued
2009-2010	133
2010-2011	603
2011-2012	361
2012-2013	234
2013-2014	0

Note: The 0 directions to comply issued in 2013-2014 were due to RIMS issues.

TABLE 14: CEO-TO-CEO LETTERS ISSUED FOR ENVIRONMENTAL AUDITS (2009-2014)

Year	CEO to CEO letters issued
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2012-2013	74
2013-2014	0

Note: CEO to CEO letters were initiated end of fiscal 2011. RIMS issues resulted in 0 CEO to CEO letters in 2013-14

Environmental Inspections

In terms of inspections, the environment unit conducts two types of inspections: environmental inspections based on complaints and reclamation inspections (IOGC employee, personal communication, August 25, 2015). An inspection by IOGC Environmental staff may occur when:

- IOGC received an external complaint about environmental concern;
- Monitoring the cleanup or post-cleanup of a spill;
- IOGC Environmental staff are in the area, to supplement a lessee’s environmental compliance audit and fulfill IOGC’s due diligence/fiduciary obligations; and
- Concerns have been noted during the review of the lessee’s environmental compliance audit

There is currently no risk matrix for identifying and completing inspections. In the 2013/2014 fiscal year, 146 surface agreement sites were inspected with 97 of the 146 inspections conducted jointly with provincial oil and gas regulators. The visits resulted in 55 inspection letters issued. In addition, the unit conducted 31 reclamation inspections. The unit currently does not have any trained inspectors and no formal procedures dictating inspection criteria. There are currently five IOGC employees that conduct inspections. Table 14 and 15 shows the number of field inspections and reclamation inspections conducted by IOGC from 2009 to 2014.

TABLE 15: NUMBER OF FIELD INSPECTIONS CONDUCTED BY IOGC ENVIRONMENT UNIT (2009-2014)

Year	Field Inspections Conducted
2009-2010	67
2010-2011	95
2011-2012	180
2012-2013	181
2013-2014	146

TABLE 16: NUMBER OF RECLAMATION INSPECTIONS CONDUCTED BY IOGC ENVIRONMENT UNIT (2009-2014)

Year	Reclamation Inspections Conducted
2009-2010	15
2010-2011	29
2011-2012	21
2012-2013	45
2013-2014	31

The Environment Unit also has obligations under Federal Environmental legislation, most prominently the *Canadian Environmental Assessment Act, 2012*, the *Migratory Birds Convention Act, 1994* and the *Species at Risk Act, 2002*. Under *CEAA 2012*, there are two functions IOGC conducts. First, companies must submit an environmental review form for every new project initiated. Companies with activities on First Nations lands must submit this to IOGC and the mitigations included in the environment review form are incorporated into the environment terms letter (IOGC employee, personal communication, September 25, 2015). IOGC determines whether the mitigations proposed are sufficient. The second function is the requirement for companies to receive environmental audits every 5 years. The audit is done through a third party against the terms letters and requirements of the Act and regulations. The final report is sent to the IOGC environment unit who are responsible for raising the outlined deficiency concerns to the respective company. IOGC’s process for correcting these deficiencies is the same as the framework outlined above (IOGC employee, personal communication, September 25, 2015). If IOGC environment inspections find that companies have contravened any provisions in the *MBCA, 1994*, the *SARA, 2002* or other federal environmental acts, they escalate the issue to Environment Canada who issues appropriate enforcement actions.

Resource Analysis and Compliance Unit

TABLE 17: NON-COMPLIANCE ISSUES IDENTIFIED BY THE RESOURCE ANALYSIS AND COMPLIANCE UNIT (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Resource Analysis and Compliance	Drainage	Subsurface	Med
	Unfulfilled commitments (drop dead)		High

There are two major non-compliance issues under the Resource Analysis and Compliance unit: drainage and unfulfilled drilling commitments (drop-dead) (IOGC focus group, personal communication, September 22, 2015). There has only been one drainage notice issued in the past five years shown by table 16. In Phase I of the new Indian Oil and Gas regulations, section 86(1) states that the Minister must send an offset notice to every subsurface contract holder obliged to pay a compensatory royalty, if they become aware that a triggering well is in production. Surface Trespass is also addressed by the engineers in the group who communicate by phone to the offending company asking them to shut in the well (IOGC employee, personal communication, August 28, 2015).

TABLE 18: NUMBER OF DRAINAGE NOTICES ISSUED (2010-2015)

Year	Drainage Notices Issued
2009-2010	0
2010-2011	0
2011-2012	1
2012-2013	0
2013-2014	0

Note: The low issuance of drainage notices are due to a variety of factors including a shortage of staff in the Resource Analysis and Compliance unit.

Technical Business Support Unit

Unlike the other units and areas at IOGC who deal with non-compliance issues, the technical business support unit conducts three major compliance and enforcement activities, royalty-based audits, production audits and production inspections to determine whether contract holders are being compliant with the Act, Regulations and terms of contract. This sub-section addresses the research question by identifying IOGC’s current compliance activities and processes.

TABLE 19: NON-COMPLIANCE ISSUES IDENTIFIED BY THE TECHNICAL BUSINESS SUPPORT TEAM (SEPT 2015)

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Technical Business Support Team – Production Audit and Inspections	No production other than H2O	Environment, Surface, Sub-surface	Med
	No difference in proration factors	“	Med
	Large metering differences	“	Med
	Large Shrinkage	“	Med
	Missing data at proration facility	“	High
	High-low fuel gas usage	“	High

	No measurement	“	High
	No gas reported at oil wells	“	High
	Change in operator		High
	Facility licensed incorrectly		High

Note: Issues are based on the production audits and inspections only

Royalty-based audits

Royalty-based audits pertain to the underpayment of royalties and in some circumstances royalty overpayments. The audits review prices, volumes and gas cost allowance and are conducted by external contractors determined by a number of risk factors and recommendations from internal employees (IOGC employee, personal communication, August 20, 2015). The risk factors to determine royalty-based audits are shown in table 6.

TABLE 20: RISK-BASED CRITERIA MATRIX FOR AUDITS

High risk	<ul style="list-style-type: none"> - The royalty payer pays significantly higher royalties per annum compared to other royalty payers - The royalty payer has not been audited during the last three years
Moderate Risk	<ul style="list-style-type: none"> - There has been a recent (e.g. during the past year) significant increase in exploration, development or other related activities by the royalty payer on First Nation’s lands - The recent operations at First Nation’s lands have experienced a frequent change of royalty payers - There has been a recent change of royalty payer who has no history with First Nation’s band or with IOGC - The royalty payer has a history of underpaying royalties - IOGC has observed a high variance of production and sales volumes of royalty payer’s submissions
Low Risk	<ul style="list-style-type: none"> - The royalty payer has a history of submitting erroneous royalties, prices, volumes, GCA data, etc. - The royalty payer is in dire financial state to the extent that it may be taken over by another royalty payer - The royalty payer has a history of non-compliance with respect to permits, leases, etc. - The royalty payer has been found to be operating in an unsafe or environmentally unsound manner

Taken from Draft Work plan Risk Matrix at IOGC

After an audit is conducted the report is shared with the GCA and Royalty groups and then filed in Central Records (IOGC employee, personal communication, August 20, 2015). The number of royalty-based audits that have been conducted in the past five years is displayed in Table 7. The lack of audits conducted in the last two years is due to contracting difficulties.

TABLE 21: ROYALTY-BASED AUDITS CONDUCTED (2009-2015)

Year	Royalty-Based Audits Conducted
2009-2010	6
2010-2011	8
2011-2012	8
2012-2013	0
2013-2014	0

Note: Royalty-based audits were not conducted from 2012 to 2014 due to a stall in the external contract

The addition of s.4.1 (1)(p) of Phase I of the Indian Oil and Gas regulations gives First Nations the authority to conduct audits. Both royalty-based and First Nation audits utilize various risk criteria to determine which companies to audit. Table 8 outlines the criteria utilized to determine First Nation audits.

TABLE 22: FIRST NATION AUDIT RISK FACTORS

First Nation Audit Risk Factors
<ul style="list-style-type: none">• The combination of “company operating on First Nation” results in royalty payments that represent a high percentage of the First Nation’s revenue per year• There has been a recent (e.g. in the past year) significant increase in the number of new wells drilled and put on production by the company on the First Nations lands• There has been recent significant increase in new facilities built and put on production by the company on the First Nations lands• The company’s operations on this First Nation have not been audited in over three years• The relevant operations have experienced a frequent change of royalty payers• The company has had difficulty submitting accurate and timely production reports and payments• The operating company has filed for bankruptcy or sought other protection from its creditors

Note: Taken from Draft Work plan Audit Risk Factors at IOGC

Production Audits/Inspections

There are two compliance and enforcement activities that deal with production, production audits and production field inspections. Production Audits are determined using the risk factors identified in Table 9.

TABLE 23: PRODUCTION AUDIT/INSPECTIONS RISK MATRIX

Risk Factors	Risk Impact	Frequency of Occurrence
<ul style="list-style-type: none"> 1) Complex operational issues (high water cut, sour gas) 2) Activity level (new drills, change in operator, receipts, dispositions, etc) 3) Mixed measurement 4) Metering differences and proration factors 5) Number of wells associated with facility 6) Production volumes 	<ul style="list-style-type: none"> A. Low Risk Impact – good operating practice, no compliance infractions B. Minor – no compliance infraction, however may be a conformance infraction; potential impact on monthly production or revenue numbers C. Moderate – possible compliance infraction: impacts monthly production or revenue numbers D. Major – compliance infraction; impacts monthly production or revenue numbers E. Serious – serious compliance infraction or serious regulatory infraction; impacts monthly production or revenue numbers 	<ul style="list-style-type: none"> 1) No or very low potential for occurrence 2) Occasional, likelihood of occurrence monthly or on some regular basis 3) Probable, occurs on a regular frequency 4) Frequent, occurs consistently, part of job practice or culture

<u>Audit/Inspection Ratings</u>	
Strong:	A Strong rating is achieved when risk impacts for any risk factor is Low, or for the higher risk impacts, when the frequency of occurrence is very low or none.
Satisfactory:	A Satisfactory rating is achieved when the risk impacts for any risk factor is Minor or Low, or for the higher risk impacts, when the frequency of occurrence is low or none.
Less than Satisfactory:	A Less than Satisfactory rating will be achieved when the risk impacts for any risk factor is Moderate or Major.

Unacceptable:	An Unacceptable rating will be achieved when the risk impacts for any risk factor is Serious.
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Prior to conducting a production audit, a letter is sent to the facility’s operator notifying them of the audit and specifying a date for field inspection providing a detailed data request (IOGC employee, personal communication, August 26, 2015). A copy of the letter is sent to the Chief and Council of the respective First Nation. A third party contractor will conduct the production audit. The number of production audits conducted in the past five years is shown in Table 10.

TABLE 24: PRODUCTION AUDITS CONDUCTED (2009-2014)

Year	Production Audits Conducted
2009-2010	4
2010-2011	4
2011-2012	1
2012-2013	1
2013-2014	2

Note: The number of production audits conducted has decreased due to a number of factors including shifting priorities and re-allocation of resources.

With respect to inspections, the Production Compliance Coordinator will conduct the field inspection and after will meet with the operator’s field staff to discuss observations and in some cases, request the operator to take immediate mitigative measures to address those concerns (IOGC employee, personal communication, August 26, 2015). A report will be drawn up by the auditor and a meeting will be scheduled with relevant operating company staff to finalize audit findings and establish a deadline for the company to provide a written response to the findings. Then company will submit their written response consisting of mitigation plans and schedules plus any addition information (IOGC employee, personal communication, August 26, 2015). The enforcement and compliance tools utilized are mostly informal consisting of letters to senior officers, face-to-face meetings with senior officers, emails/phone calls, face-to-face meetings with field inspectors and self-declarations. A ministerial order has been issued on one occasion.

Overall, there are a number of conclusions drawn from the collection of statistics outlining the number of enforcement actions issued by areas of IOGC.

- The tracking of enforcement actions is only done regularly by the GCA team and Environment Unit. These are recorded on separate excel sheets.
- Enforcement actions and non-compliance offences are rarely published in IOGC annual and quarterly reports.

- The rate of non-compliance vs. enforcement actions issued is not calculated or recorded in many units at IOGC.
- The statistics do not reflect persistent non-compliers therefore many directions to comply have been issued to the same offender for the same offence.
- The statistics do not provide details on the offender, date of offence, type of offence, and follow up process.

As demonstrated above, it is important to note that these statistics do not reflect the entirety of IOGC practices within the realm of compliance and enforcement.

PART B: EMPLOYEES' OPINIONS ON CURRENT COMPLIANCE AND ENFORCEMENT PRACTICES

During the focus group and internal interviews, employees were asked to identify their top issues and concerns with current compliance and enforcement practices at IOGC. Of the 11 feedback sheets submitted during the focus group, seven of the 11 rank the lack of internal policies and procedures resulting in lack of consistency in dealing with non-compliers as a top issue and concern. Other top concerns include: the lack of understanding of procedures and policies from external stakeholders, the lack of available database to monitor and track non-compliance issues, the lack of effective follow-up processes for dealing with non-compliers, the absence of enforcement culture and experience at IOGC and the lack of communication between division/units pertaining to non-compliance issues. Many employees were also worried about the role the new compliance and enforcement unit would have, the handoff point between the C&E unit and other areas at IOGC and the administrative implementation of AMPs and fines.

Other issues raised include:

- Lack of available enforcement tools
- Lack of resources within the realm of enforcement to conduct audits and inspections
- Technical issues with current databases with respect to performing allocated tasks pertaining to compliance and enforcement
- Lack of staff capacity in current units and formal training to deal with non-compliance
- Lack of accountability to First Nations

Suggestions for addressing these issues and concerns were given by a number of participants and included:

- Hire an expert to lead and implement compliance and enforcement (C & E) unit
- Hire employees for the C&E unit; look at hiring one or more people within existing units
- Increase communication between units and group at IOGC to make employees aware of non-compliance issues

SECTION II: JURISDICTIONAL SCAN

Overall, developing a coherent and consistent approach to issues surrounding environmental enforcement and compliance assurance across sub-national and local jurisdictions is a major challenge (OECD, 2010). The Canadian and international jurisdictions reviewed differ in the tools, procedures and policies they implement under their compliance and enforcement programs. Varying degrees of discretion of environmental enforcement authorities at lower administrative levels are apparent. In addition, differences in enforcement and compliance tools, classification of offences, education and awareness programs, self-disclosure policies, reporting enforcement actions and monitoring of offences are demonstrated. The scan utilizes these variables as well as Gunningham's intervention strategies to assess various jurisdictions and determine practices most suitable for Indian Oil and Gas Canada.

The following eight jurisdictions were included in the review for various rationales, the Alberta Energy Regulator, British Columbia Oil and Gas Commission, National Energy Board, Saskatchewan Ministry of Economy and the Petroleum Mineral Resource Directorate in Canada and the United Kingdom Department of Energy and Climate Change, the United States Bureau of Land Management and Australia Department of Mines and Petroleum. The Canadian jurisdictions operate under very similar legislative frameworks to Indian Oil and Gas Canada and interact with similar stakeholders. The jurisdictions in Western Canada were chosen because the majority of IOGC's operations are in these three provinces. The Petroleum and Mineral Resources Management Directorate was chosen as it exists, like IOGC, as an agency under Aboriginal Affairs and Northern Development Canada and governs oil and gas above the 60th parallel. Internationally, the UK was chosen because it is recognized as a leading example for oil and gas industry regulation. The USA is a model for traditional deterrence and Australia was chosen for its similar legislative framework and federalist state structure to Canada. All three international jurisdictions have recently updated or are in the process of updating their compliance and enforcement procedures in the oil and gas sector.

INTERNATIONAL

UNITED KINGDOM

Traditionally, the regulation approach for compliance and enforcement in the UK for oil and gas has been cooperative, utilizing performance-based regulation and informal mechanisms. Since the late 1990s, there have been four main documents that have shaped the UK's enforcement and compliance policies: the 1998 Enforcement Concordat, the 2004 Hampton Review and associated Compliance Code and the 2014 Regulators' Code. The latest document is the Regulators' Code, a code of practice which stipulates that regulators must have regard to the Code when developing policies and operational procedures that guide their regulatory activities (Government of the United Kingdom, 2014b). According to Gunningham's intervention strategy,

the current intervention strategy utilized by the UK is a risk-based one which is endorsed by the Hampton Review and integrated into the 2014 Regulators’ Code. Onshore oil and gas regulation in the UK has been recognized as exemplary by the rest of the world.

Unlike Canada, in the UK 98% of oil and gas production is from offshore oil and gas fields. Oil and gas is regulated by a number of statutory bodies including the Environment Agency in England, the Scottish Environment Protection Agency in Scotland, Natural Resources Wales in Wales, the Health and Safety Executive and the Department of Energy and Climate Change (Mace et al., 2014) This review will examine the Department of Energy and Climate Change (DECC) and their compliance and enforcement policies surrounding oil and gas at a national level.

Currently the DECC is responsible for setting energy and climate change mitigation policies. The DECC also administers the *Petroleum Act, 1998* which vests all rights and ownership of hydrocarbon resources to the Crown (Department of Energy and Climate Change, 2015). The DECC issues Petroleum Exploration and Development Licenses (PEDL), gives the final consent for drilling, reviews fracturing plans and environmental risk assessments and liaise with Health and Safety to identify objections to the proposal. The DECC acts as a regulatory regime applying to oil and gas exploration and production in the UK, excluding in Northern Ireland (Mac et al., 2014). It uses a performance-based approach to regulation, referred to as “goal-setting” that requires companies to continually demonstrate that they are taking measures to minimize the risk of oil and gas releases.

The DECC has developed a 2014 policy on offshore oil and gas enforcement procedures that set out the general principles inspectors should follow in relation to enforcement. It covers the following key areas: appointment and power of inspectors, purpose and scope of enforcement, principles of enforcement, methods of enforcement, prosecution, enforcement and the liaison with other authorities, concurrent use of enforcement methods and communicating outcomes, publicity and provision of information and appeal, complaints or comments (Government of the UK, 2014a).

The DECC inspectors follow 5 principles of enforcement: proportionality, targeting, consistency, transparency and accountability which are outlined in the DECC Enforcement Policy.

TABLE 25: PRINCIPLES OF ENFORCEMENT ACCORDING TO THE DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE IN THE UK

Principles of Enforcement	Description
Proportionality	Relating the method of enforcement to the seriousness of any alleged offence
Targeting	Making sure that regulatory enforcement effort is directed primarily towards a list of prioritized activities

Consistency	Taking a similar approach in similar circumstances to achieve similar ends
Transparency	Helping those being regulated understand what is expected of them and what they should expect
Accountability	Having policies and standards against which it can be judged and effective and easily accessible mechanisms for dealing with comments and handling complaints

Adapted from DECC Enforcement Policy 2014

With respect to enforcement tools, the DECC enforcement activity falls into four main categories: letters, enforcement and prohibition notices, permit revocation and prosecution. Letters are sent by an Inspector to the permit holder or licensed operator when there is frequent recurrence of a minor contravention. Enforcement notices may be issued if there is opinion that any condition of a permit has been contravened or a release or discharge without a permit has occurred. The notice will identify the steps to be taken to remedy or prevent the contravention/release or discharge and will specify the period within which those steps must be taken. The prohibition notice may be issued if the operation of an offshore installation involves an imminent risk of serious pollution. Revocation of a permit can occur by the Secretary of State under the legislation if they are of the opinion that any application, information or statement made in connection with a permit was false or misleading or permit holder/licensed operator has been guilty of a breach of any condition attached to a permit. For serious offences, prosecution can be pursued. The DECC will pursue prosecution where it considers the gravity of the alleged offence justifies this, general record and approach warrants it, or there has been a reckless disregard of requirements enforced by legislation. The DECC Public Register of Enforcement and Prohibition Notices includes all notices issued in the last five years. The DECC also publishes prosecutions pursued in the last five years. The public register includes notice number, operator, notice type, legislation and issue date. Notices and prosecutions older than five years old are available on request. The enforcement regime entitles the operator the right to appeal to the High Court for England, Wales and Northern Ireland or the Court of Session in Scotland. Appeal must be made within 28 days of when the enforcement action was issued (Government of the UK, 2014a).

The enforcement policy also outlines actions for enforcement and liaison with other regulatory authorities and the concurrent use of enforcement methods and communicating outcomes. Arrangements are in place to ensure that there are no conflicts of interest between DECC Inspector's enforcement activities and any other actions taken by other regulators. DECC inspectors will also liaise with Inspectors from the other Regulators where both are planning to take enforcement action following similar regulatory interventions involving the same matter (Government of the UK, 2014a).

In 2015, the DECC established the Oil and Gas Authority (OGA) as an executive agency to regulate onshore and offshore oil and gas in the UK. The intention is that the OGA will be incorporated as a Government Company by summer 2016. The organization's establishment stems from a recommendation from the Wood Review, a comprehensive review of the UK's offshore oil and gas industry, which was published in February 2014. The review uncovered a shortage of resources to effectively manage offshore oil and gas production and development, with 300 fields in production and 50 personnel. A new power of the OGA includes the ability to issue up to one million pounds of civil financial penalties. The creation of an arm's length regulatory body demonstrates the intervention strategy of smart regulation as it embraces a third party acting as a surrogate regulator (Oil and Gas Authority, 2015).

UNITED STATES

Traditionally, the United States has been a proponent of the command-and-control or prescriptive approach to regulation. Given the American history of adversarial legalism, "deterrence" and "enforcement" are raised far more frequently in US Environment Protection Agency documentation than in comparable documents of its European and Australian counterparts (Gunningham, 2015). There are currently six federal regulatory bodies responsible for various aspects of oil and gas regulation in the US. The two most active ones with respect to compliance and enforcement of oil and gas are the Bureau of Land Management (BLM), which regulates onshore oil, gas and coal operations on federal and Indian lands and the Environmental Protection Agency (EPA), which enforces environmental statutes and regulations on federal and Indian lands (Fallon and Loh, 2015). For the purposes of this review, only BLM's enforcement and compliance program was assessed.

The Bureau of Land Management is responsible for most of the management and regulatory oversight of federal and Indian resources. Compliance and enforcement is governed by the 2005 *Energy Policy Act* and the 2007 Oil and Gas Program Enforcement Procedures (Bureau of Land Management, 2015). The 2007 Oil and Gas Procedures govern all BLM inspectors' activities in their five field offices. The document is prescriptive outlining factors such as the various enforcement tools for non-compliance and when to use them, identification of violations versus problems, proactive measures of compliance, instructions for completing notice and incidence and notice of shut down forms and state director review and appeals processes (Bureau of Land Management, 2007)

Gravity of violation

According to the oil and gas procedures, all violations must be classified either as major or minor. A major violation is a non-compliance that causes or threatens immediate, substantial and adverse impacts to public health and safety, the environment, production accountability or royalty income. If a violation doesn't meet these criteria, it is defined as a minor violation.

Proactive Measures to Achieve Compliance

There are several proactive actions that can help prevent and alleviate non-compliances. Field Offices can review operator non-compliance ratings annual to identify issues or trends of noncompliance which provides an opportunity to communicate with the operator and avoid repeat violations. Other proactive measures include:

- attending company safety meetings to explain regulatory requirements;
- having one-on-one meetings in the field to discuss specific violations that are occurring;
- reminding the operator prior to violation abatement dates that compliance must be obtained by the due date or assessments may occur;
- holding operator meetings and discussing common violations occurring in the area; and
- If during the early stages of conducting an inspection, systemic violations or problems are identified, contact the operator for a meeting to address the situation. This should be done before the enforcement actions issued become overwhelming to both the operator and the BLM (Bureau of Land Management, 2007, p.3)

With respect to enforcement actions, BLM has the authority to issue notices of non-compliance, notices of written orders and conduct follow up inspections. For continued non-compliance, monetary assessment, immediate assessments, civil penalties, shut down of operations, enter lease and perform work at expense of operator, forfeiture under the bond and lease cancellations can be enforced (Bureau of Land Management, 2007). A summary of determination and utilizing enforcement actions is outlined in Table 18.

TABLE 26: SUMMARY OF ENFORCEMENT ACTIONS AVAILABLE TO THE BLM

Enforcement Process Short Version		
Order of the Authorized Officer	Minor Violation	Major Violation
Used for problems that are not violations. Can initially notify the operator orally followed up in writing within 10 days.	In violation of a specific regulatory requirement that does not raise to the level of a major violation	In violation of a specific regulatory requirement that causes immediate, substantial and adverse impact on environment, public health and safety, production accountability or royalty income
Issue the order – provide an abatement date. Follow up	Issue the INC with a reasonable abatement date. Follow up	Issue the INC with a reasonable abatement date. Follow up
If not corrected – issue an INC	If not corrected with an initial abatement date, issue a second notice with \$250 assessment. Provide an abatement date of not less than 20 days. Follow up. Consider whether	If not corrected within initial abatement date, issue a second notice with \$500 per day assessment. Provide a new abatement date. Follow up. Consider whether operations

[44]

	operations should be shut down or if we need to perform the work	should be shut down or work needs to be performed
Follow the INC process	If not corrected within 20 days of the second notice, initiate proposed civil penalties at \$50 per day from the date that the second notice was received. Inform the operator of subsequent dollar amounts of civil penalties and possible lease cancellation if the violation is left uncorrected. Consider whether operations should be shut down or work needs to be performed	If the second INC is not corrected and due to the serious nature of the violation, steps should be taken to shut down operations or work needs to be performed
	Five days prior to the 40 th day of civil penalties issue a letter informing the operator of the next phase of civil penalties (\$500/day) and encourage compliance. Consider whether operations should be shut down or if work needs to be performed	
	Five days prior to the 60 th day of civil penalties, issue a letter to inform the operator of the next phase. Initiate lease cancellation procedures and encourage compliance	

Adapted from Bureau of Land Management (2007)

In 2011, BLM developed a new risk-based inspection strategy based on the amount of production, operator compliance and high or low priority ratings. BLM conducts 6 different types and inspections and each have their own risk factors for determining inspection priorities. The 6 types are: production, records verification, drilling, abandonment, workover and environmental (Bureau of Land Management 2007). A few Indian tribes handle their own inspection and enforcement under contracts with BLM. In these cases, BLM trains and certifies qualified tribal inspectors and funds the tribe’s efforts (Fall and Loh, 2015).

Production inspections are based on a case/operator basis and seven risk factors:

- production rating (based on the average monthly oil and gas production)
- missing oil and gas operations reports rating

- compliance rating (number of incidents of noncompliance issued in last two years)
- last petroleum information inspection rating (number of years since inspection)
- OCOR reporting error rating
- Production variance rating
- ONRR audit findings rating (para. 3)

Environment inspections are based on well/facility and four risk factors:

- Environmental sensitivity rating (historic trails, fragile soils, wildlife and plant habitat, perennial water, occupied buildings, shallow groundwater etc.)
- Last inspection rating
- Well compliance history rating (number of incidents of non-compliances in the major and minor categories)
- Operator compliance history rating (same as above) (para. 4)

A 2014 report entitled *Oil and Gas: Updated Guidance, Increased Coordination and Comprehensive Data could improve BLM's Management and Oversight*, produced by the Government Accountability Office (GAO) found that the BLM has failed to adequately inspect because of a lack of coordination with state officials, lack of funding and staff and reliance on old guidelines. It recommends that BLM establish a documentation process to ensure oil and gas rules and guidance is reviewed and periodically updated, that it establish formal agreements (memorandums of understanding) with all relevant state regulatory agencies regarding oil and gas inspection activities; better leverage state inspection resources to avoid duplicate oversight activities; ensure BLM field offices have sufficient data and direction to identify location of resources and; identify and take necessary steps to ensure agreements are reviewed within required time frames. In addition, a 2013 study conducted by the Western Organization Resource Councils found that BLM continues to take very few enforcement actions compared to the number of wells and inspections conducted and issues few fines and penalties. Overall, the lack of coordination across jurisdictions and lack of resources surrounding inspections inhibit BLM's compliance and enforcement ability.

To address federal/state coordination, the Federal Permit Improvement Pilot Project was established to improve coordination of permitting processing among federal agencies and inspections and enforcement. Substantial improvements in inspection and enforcement are occurring in areas administered by Pilot Offices. In 2007, the pilot offices performed 24% more inspection than in 2006 and 48% more inspections since 2005. More inspections have led to better compliance among operators, evidenced by a reduction in the number of major violations (Bureau of Land Management, 2015). The incidence of environmental violations was 12% lower in 2007 than in 2006, while technical violations were reduced by 4.4%.

AUSTRALIA

Australia has both offshore and onshore oil and gas resources. Each state and territory government has jurisdiction over petroleum reserves in their territory (Smith and King, 2013). For onshore and coastal waters of up to three nautical miles, New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia all have their own Oil and Gas Acts and regulations. Offshore projects are regulated at the Commonwealth level under other offshore Acts and regulations. With respect to enforcement, each state and the Northern Territory has a department responsible for petroleum regulation. In Queensland, the Petroleum and Gas Inspectorate of Safety and Health Division has the power to conduct audits, inspections and investigations to monitor and enforcement compliance (Smith and King, 2013). The petroleum industry in Western Australia is the largest contributor of oil and gas in the country. The Department of Mines and Petroleum is the main state regulator of this and will therefore be assessed in this section.

Native title and Indigenous cultural heritage

Native title is recognized in Australia where:

- The rights and interests are possessed under traditional laws and customs that continue to be acknowledged and observed by the relevant Indigenous Australians or Torres Strait Islanders
- By virtue of those laws and customs, the Indigenous Australians or Torres Strait Islanders have a “connection” with the land and/or waters
- The native title rights and interests are recognized by the common law of Australia

It is governed by the *Native Title Act, 1994* and the Indigenous Land Use Agreements (Smith and King, 2013). The NTA subjects the granting of petroleum companies rental of Native lands to two prior conditions:

- 1) The “right to negotiate” process: a 6 month period of negotiation with relevant registered native title claimants to obtain their consent to the grant of the contract
- 2) Entering into an Indigenous Land Use Agreement with relevant native title parties

Separate legislation prescribing forms of protection of Indigenous cultural heritage are available both at the federal and state levels (Smith and King, 2013).

Department of Mines and Petroleum

The Western Australian Department’s 2010 Enforcement and Prosecution Policy refer to fostering “consistent, integrated and coordinated enforcement action across all sections of the department.” The principles of enforcement include: proportionality and responsiveness, transparency, consistency. Targeting, due process, natural justice, cost-effectiveness and policy compatibility. After an investigation is conducted and an offence under the legislation has occurred, the alleged offender will be informed what enforcement action may be taken. On the

spot direction to take corrective action may also be given. The DMP uses the criteria intervention strategy listing a number of specific criteria that the Department will consider when choosing whether further enforcement actions are necessary. The enforcement criteria are listed in Table 19. The application of a Criteria Strategy leaves individual inspectors and other decision-makers with extremely wide discretion as to what action they decide is appropriate.

TABLE 27: DMP ENFORCEMENT CRITERIA

Seriousness of breach	Cooperation and willingness to take remedial action	Voluntary action taken to mitigate harm
Failure to comply with either a legal direction or notice	Need for bot specific and general deterrence	Due diligence procedures in place
Culpability	Precedent that may be set by failure to take enforcement action	Failure to notify
Level of broad public concern	Enforcement measures necessary to ensure compliance	

Retrieved from the DMP Enforcement and Prosecution Policy (2010)

The enforcement measures available to the DMP under its legislation are written or verbal warnings, notices, amendment to license conditions (to bring operation into compliance within a specified time), directions, suspension or revocation of license (if contravention of any impose license conditions or an unacceptable risk to people or the environment or both exists), infringement notices and a fine, and prosecution. Prosecution may be against the company or individuals and may occur if:

- Incidents or breaching having significant consequences for people, the environment, royalty collections or resource integrity;
- Operating without a relevant license
- Persistent breaches of regulatory requirements;
- Failure to comply with an approved or accepted safety case, safety management plan or environmental management plan
- Failure to comply with prescribed remedial requirements;
- Reckless disregard for standards;
- Failure to supply information without reasonable excuse or knowingly or recklessly suppling false or misleading information and
- Obstructing investigators of authorized officers (p. 2)

The DMP will draw media attention to any conviction in an effort for it to act as a deterrent for engaging in similar illegal content or to serve as an example of the need to comply with legislation.

With respect to auditing and reporting requirements, auditing is required to be undertaken regularly by the operator to assess the environmental performance and compliance of an operation and to review the effectiveness of the operator's environmental management system. The Petroleum Environment Branch at DMP undertakes environmental compliance audits and inspections of petroleum and geothermal activities for independent review and monitoring of operations against environmental commitments (Department of Mines and Petroleum, 2015b). Operators are required to report various environmental aspects of their operations to DMP. Environmental reporting includes annual compliance reporting, quarterly emissions and discharges reporting and incident reporting. The operator must monitor all emissions and discharges to any land, air, marine, seabed, groundwater, sub-surface or inland waters environment and submit to the DMP a written report every 3 months. In addition operators are required to submit a report to DMP at least annually. Under regulation 28 of the Petroleum (Environment) Regulations, the operator must notify DMP as soon as practicable, and in any case not later than two hours of the incident occurring.

In 2012, the Ministerial Advisory Panel recommended a number of reforms to the DMP with respect to environmental management and regulation. To implement these recommendations, the DMP established the Reforming Environmental Regulation Advisory Panel in 2013 to provide advice to the Director General and the Reform Group project team. A key panel recommendation was to do with the implementation of a risk-based assessment and compliance methodology for environmental regulation and establish clear operational procedures to improve the efficiency, effectiveness and accountability of compliance activities (Department of Mines and Petroleum, 2015a). According to the Environmental Regulation strategy, this will ensure that DMP's regulatory effort is targeted, proportionate and effectively manages environmental risks. The regulatory strategy is:

- Outcomes based: sets clear environmental outcomes to guide environmental risk assessment and management
- Risk-based: identifies risks to achieving those outcomes and targets effort on minimizing and managing those risks
- Evidence based: gathers intelligence on industry and regulatory performance to ensure effective and efficient implementation, and adapts regulatory activity in response to emerging risks and trends (p. 6)

This indicates a shift away from the prescriptive regulatory framework towards performance-based and risk-based regulation in the oil and gas sector in Western Australia. The outcomes-focused regulatory system requires compliance monitoring, reporting and data management to evaluate the performance of the industry in achieving environmental outcomes. The development of Key Performance Indicators (KPI) performance indicators for measuring effectiveness in achieving environmental objectives is proposed as a recommendation in the report. In addition, the implementation of a risk-based assessment and compliance methodology and the evaluation

of inter-agency agreements and signing of MOU between the DMP and other agencies to reduce duplication were proposed.

Overall, a review of literature in the United Kingdom, United States and Australia's compliance and enforcement in the oil and gas sector has highlighted various aspects of compliance and enforcement models such as principles of enforcement, proactive measures and a shift to more performance-based monitoring for environmental regulation which Indian Oil and Gas Canada must take into account when developing its compliance and enforcement framework.

CANADA

According to the Constitution, provincial governments have jurisdiction over the exploration, development, conservation and management of non-renewable resources. The federal government regulates inter-provincial energy resources and manages non-renewable resources on federal lands. This section will outline the four Western and one Northern oil and gas regulator's approaches and procedures to compliance and enforcement in the oil and gas sector. All five regulatory agencies have recently updated or are in the process of updating their compliance and enforcement procedures and framework.

ALBERTA ENERGY REGULATOR (AER)

The AER is responsible for regulating oil and gas production and development on Alberta provincial lands. It is governed by the *Responsible Energy Development Act* and administers the *Oil and Gas Conservation Act*, the *Oil Sands Conservation Act* and the *Gas Resources Preservation Act* pertaining to oil and gas resources.

Compliance and enforcement procedures are currently governed by 2010 Directive 019: Compliance Assurance, the AER Table of noncompliant events and associated risk ratings of AER requirements, the AER Persistent Non-compliance framework and the Compliance Assurance Risk Assessment Matrix. However, the compliance assurance program is being revised and a new document "Integrated Compliance Assurance Framework and Manual" will be released in November 2015 replacing Directive 019. According to an employee at the AER, six major changes will be made to the program:

- 1) Shift from predetermined risk to allow officers more discretion
- 2) Replace high/low risk process with notice of non-compliance
- 3) Introduce triage process for risk
- 4) Introduce investigation process
- 5) Enforcement decision meeting after issuing an order/AMP to have an inquiry peer-review forum prior to making decision
- 6) New sections of Responsible Energy Development Act (REDA) gives AER more authority (AER Staff, *personal communication*, September 9, 2015)

The AER’s current compliance and enforcement processes under Directive 019 are fairly prescriptive in nature. Under the Compliance Assurance program three activities are used to facilitate efficient and effective compliance: education, prevention and enforcement. The Directive seeks to explain what the licensee must do when a non-compliance is identified by the AER, the processes and consequences for high and low risk noncompliance events, the enforcement appeal process, the voluntary self-disclosure policy and the availability of compliance information. The number of staff in the AER’s compliance and enforcement unit is over 77 people. The frequency of enforcement actions utilized between 2010 and 2014 are shown in Table 20.

TABLE 28: FREQUENCY OF ENFORCEMENT ACTIONS UTILIZED (2010-2014)

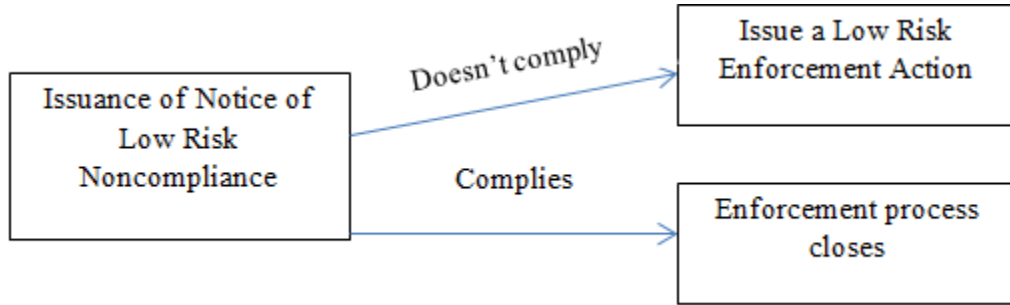
Year	High Risk Enforcement Action	High Risk Enforcement Action Persistent Non-compliance	High Risk Enforcement Action Summary	High Risk Enforcement Action (Failure to Comply)	Low Risk Enforcement Action – Global Refer Summary	Legislative/R egulatory Enforcement Action Summary	Total
2010	317	0	2	3	106	35	463
2011	275	2	3	15	124	21	440
2012	327	8	1	15	53	30	434
2013	272	8	3	15	194	39	531
2014	227	14	0	18	160	55	474

Adapted from the Compliance Assurance Dashboard

With respect to the classification of offences, a high or low enforcement action classification is pre-determined by enforcement officers based on the high and low risk process (Alberta Energy Regulator, 2010). The AER Table of Noncompliant Events and Associated Risk Rating of AER Requirements identifies all provisions in the associated Directives, Acts and Regulations and classifies them as either High or Low risk based on the Risk Matrix identified in Appendix H.

The low risk process is sequential as show in Figure 1. The issuance of a notice of low risk non-compliance is seen as an action under Prevention. If a licensee receives a Low Risk Enforcement Action, they must immediately correct or address the noncompliance, notify the AER that it has been corrected and develop, implement and submit written action plans within 30 calendar days (Alberta Energy Regulator, 2010). Written action plans include the identification of root causes of the event and steps to be taken to prevent future occurrences and the plans for correcting the non-compliance. Low Risk Enforcement Actions can be noncompliance fees, partial or full suspension, suspension and/or cancellation of permit, license or approval, issuance of an order and/or referred global or focused status which gives the licensee an enforcement status which results in a more rigorous review of the licensee’s pending and future applications. “Focus refer” targets specific activities or operations which result in a more rigorous review and “global refer” results in all licensee’s activities and operations being put under review (Alberta Energy Regulator, 2010). The status is removed when compliance is achieved.

FIGURE 1: AER LOW RISK ENFORCEMENT PROCESS



Contrarily, the high risk process is not necessarily sequential. The AER’s response is based on the circumstances of the case and the licensee’s compliance history. The response may result in any one of the following; notice of high risk noncompliance, high risk enforcement action, high risk enforcement action (persistent non-compliance), high risk enforcement action (failure to comply) or high risk enforcement action (demonstrated disregard). The licensee response and available enforcement actions under each high risk enforcement action type is shown in Table 21.

TABLE 29: LICENSEE RESPONSE AND ENFORCEMENT ACTIONS AVAILABLE FOR HIGH RISK ENFORCEMENT

Type of High Risk Enforcement	Licensee Response	Available Enforcement tools
High Risk Enforcement Action	<ul style="list-style-type: none"> • Immediately correct or address noncompliance • Suspend operations if necessary • Develop and implement written action plan within 60 calendar days • Notify the AER group that high risk noncompliance has been addressed 	<ul style="list-style-type: none"> • Noncompliance fees • Self-audit or inspections • Increased audits or inspections • Partial or full suspension and/or • Suspension and/or cancellation of permit, license or approval
High Risk Enforcement Action (Persistent Noncompliance)	<ul style="list-style-type: none"> • Same as above plus meet with AER group to discuss high risk non-compliance, licensee compliance history and written action plan 	<ul style="list-style-type: none"> • Same as above plus option for third-party audits or inspections
High Risk Enforcement Action (Failure to Comply)	<ul style="list-style-type: none"> • Same as HREA Persistent 	<ul style="list-style-type: none"> • Same as HREA Persistent

	Noncompliance	Noncompliance plus refer status: focused or global and issuance of an order
High Risk Enforcement Action (Demonstrated Disregard)	<ul style="list-style-type: none"> • Same as HREA Persistent Noncompliance 	<ul style="list-style-type: none"> • Same as HREA Failure to Comply

Adapted from the Alberta Energy Regulator (2010) p. 5-7

To appeal prevention notices and enforcement actions, the licensee is encouraged to discuss it with the AER group prior to filing an appeal with the AER Enforcement Advisor. The appeal must be submitted within 60 calendar days of the date of the notice or enforcement action, be in writing and explain why the licensee disagrees with the prevention notice or enforcement action. The timeline for decision on appeal is 10 working days after the receipt of all required documents (Alberta Energy Regulator, 2010).

Persistent Non-compliance framework

The AER’s persistent non-compliance framework helps each AER group to determine whether a licensee is persistently non-compliance and subject to the High Risk Enforcement Action (Persistent Noncompliance) process. Persistent noncompliance is defined in the framework as “an unacceptable rate, ratio, percentage or number of non-compliances by a licensee, either in the same or in different compliance categories,” (Alberta Energy Regulator, 2010, p.1). Each group is responsible for tracking compliance activities and generates a report that identifies licenses whose noncompliance rate exceeds the Industry average rate (total number of industry non-compliances divided by the total number of conducted inspections/audits/investigations on industry within a compliance category) (Alberta Energy Regulator, 2010, p.1). The Persistent Non-compliance criteria for each compliance category is determined by group on an annual basis and published as the Persistent Noncompliance Criteria on the AER website (Alberta Energy Regulator, 2013). This criteria is utilized to determine when a licensee is considered to be persistently non-compliant in a particular category.

Voluntary Self-disclosure policy

The AER’s voluntary self-disclosure policy intends to encourage licensees to proactively identify, report and correct noncompliance of AER requirements. For a noncompliance to qualify as a voluntary self-disclosure the licensee must:

- Be the first party to contact the ERCB regarding the noncompliance, and
- Take appropriate steps to correct or address the noncompliance (p.12)

When disclosing a high risk noncompliance, a licensee must:

- Immediately correct or address the noncompliance, including suspending operations if warranted, to ensure that risk to the public or environment is mitigated, and
- Develop and implement a written action plan within 60 days of the high risk noncompliant event or in the time specified by the appropriate AER group (p.12)

A licensee must also be required to submit a written action plan and meet with the AER group to discuss the high risk noncompliance or licensee's compliance history. The benefits of voluntary self-disclosure according to the AER are: proactive correction of the noncompliance, no enforcement action if licensee addresses noncompliant events during the timeframe agreed upon, improved relationships between the licensees and the AER and improved public safety and health, protection of the environment, conservation of the resource and regulatory confidence (Alberta Energy Regulator, 2010).

Reporting Non-compliances and Education

The compliance dashboard publishes incidence response, investigations and compliance and enforcement actions the AER utilizes. The dashboard publishes the company involved with the noncompliance, the noncompliance according to specific legislation and the date the enforcement action was issued. In addition it specifies the location of the non-compliance and the enforcement action issued (Alberta Energy Regulator, 2015).

There are also a number of education and communication material published including presentations, FAQs, brochures, guidance information relating to the AER directives, rules and regulations. The AER offers education activities such as group operator awareness sessions, presentations to individuals companies and AER Inspection training (Alberta Energy Regulator, 2015). Education is one of the three compliance and enforcement activities under the Directive 019 Compliance Assurance Program.

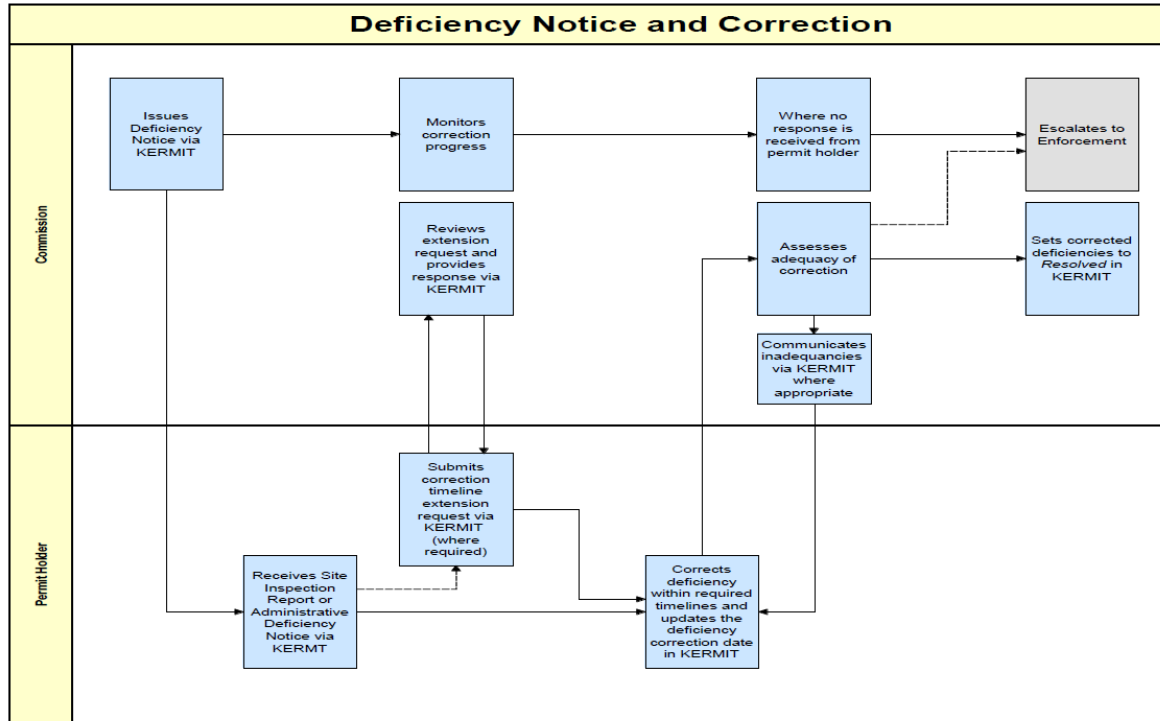
BRITISH COLUMBIA OIL AND GAS COMMISSION (BCOG)

The BCOG regulates oil and gas production and development in the Province of British Columbia. It has a Compliance and Enforcement Procedure Manual updated in June 2015 which outlines its steps to achieve compliance throughout the organization. The unit has 20 inspectors and 4 administrative staff overseen by a Deputy Commissioner (26 employees total). It derives its authority from the *Oil and Gas Activities Act*.

In general, inspectors have a high degree of discretion but must follow appropriate procedures regarding their compliance and enforcement activities. Inspectors are encouraged to achieve compliance through the deficiency process rather than escalating the action to enforcement (BCOG Staff, personal communication, September 8, 2015). Deficiency notices are sent out by the respective units/divisions and if no response is received it is escalated to the compliance and enforcement unit which follows up with issuing an order (British Columbia Oil and Gas

Commission, 2015). The deficiency process is outlined in Figure 2 and an overview of compliance and enforcement processes can be viewed in Appendix I.

FIGURE 2: DEFICIENCY NOTICE AND CORRECTION PROCESS MAP



Taken from British Columbia Oil and Gas (2015) p. 13

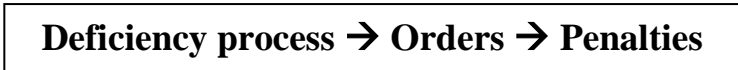
There are four ways in which a non-compliance can be brought to the attention of the BCOG. Through inspections, administrative non-compliances, complaints and incidents response or permit holder self-disclosure (British Columbia Oil and Gas Commission, 2015). With respect to inspections, they are conducted based on an assessment scoring model utilizing OSI criteria: operator history, site sensitivity and inherent risk. Inspections are governed by the inspection procedure form available on the BCOG website. Approximately 4000 to 4800 inspections are conducted per year (BCOG Staff, personal communication, September 8, 2015). Inspectors are trained mostly internally. Audits are not part of the compliance and enforcement program and are conducted by other areas based on their own criteria. Examples of administrative non-compliances can include failure to submit notices of construction starts, notices of operations or flaring notices. These are identified by BCOG employees. Complaints and incident response result in BCOG staff conducting investigations. Investigations are conducted to collect information and evidence relating to an alleged non-compliance prior to pursuing enforcement actions. Based on the Investigation report, the BCOG will determine if the report warrants the pursuance of compliance and enforcement actions (British Columbia Oil and Gas Commission, 2015).

Permit holder self-disclosure

The permit holder self-disclosure process is intended to promote proactive identification and correction of non-compliance, improve industry compliance and relationships with the Commission, instill regulatory confidence, protect public safety and the environment and conserve petroleum and natural gas resources (British Columbia Oil and Gas Commission, 2015). To initiate permit holder self-disclosure, the permit holder must submit a formal letter to BCOG detailing the non-compliance and associated action plan to address it. Permit holders are encouraged to communicate third-party non-compliance instances to the Commission via email. The potential benefits of permit holder self-disclosure include a reduction in the severity or elimination of enforcement actions utilized on the offender and an increase in the protection of public safety and the environment (British Columbia Oil and Gas Commission, 2015).

BGOC has a number of enforcement tools under the OGAA and associated Acts. After an alleged violation is found and proven, the BCOG compliance and enforcement team can determine whether to place the non-compliance in the administrative stream or the quasi-judicial stream. Under the quasi-judicial stream prosecution is pursued or tickets are issued and under the administrative stream orders or penalties are issued. The least frequent enforcement tool utilized is prosecution due to its workload and high burden of proof required. The most frequent enforcement tools are ticket writing, orders and contravention, determinations and penalties under the OGAA. Orders are issued under section 49 of the OGAA and are issued when it is necessary to mitigate a risk to public safety, to protect the environment or to promote the conservation of petroleum and natural gas resources. Technical orders can also be issued under section 49.1 of the OGAA and compliance orders under Section 88 of the OGAA. Tickets are issued under the Water Act, Land Act and Forest Acts.

The standard process for enforcement escalation is:



Administrative Monetary Penalties are issued under the OGAA. Penalties have only been issued in the past year as BCOG obtained the authority to issue them at that time (approximately 16 to 17 per annum) but BCOG thinks that the amount of penalties issued will increase in the upcoming years. There is no distinct process for repeat offenders. BCOG publishes quarterly enforcement reports that are available on their website. The quarterly enforcement reports outline the contraventions to the OGAA and associated enforcement actions taken. A summary of the enforcement actions utilized since 2013 are shown in Table 22.

TABLE 30: SUMMARY OF ENFORCEMENT ACTIONS AT BCOG

Year	Orders	AMPs	Ticket writing	Total
-------------	---------------	-------------	-----------------------	--------------

2013	52	0	17	69
2014	18	5	62	85
2015 (Q1&Q2 only)	15	13	21	49 + 2Qs

Adapted from BCOG Quarterly Enforcement Reports

To appeal an order or penalty, the alleged offender can choose to pursue an appeal through two routes, either request a review from another decision maker at BCOG or request a third party tribunal to review the case, which is a quasi-judicial process consisting of a three person panel (British Columbia Oil and Gas Commission, 2015). The opportunity to be heard offers the permit holder an opportunity to be heard prior to making a determination about the alleged contravention found during an investigation if it is part of the administrative stream and not the quasi-criminal one (British Columbia Oil and Gas Commission, 2015). The Statutory Decision Maker at BCOG provides a written notice to the alleged offender with the hearing details. A pre-hearing conference is then set up followed by an agreed statement of facts. Written or oral hearings can be conducted (British Columbia Oil and Gas Commission, 2015).

With respect to internal monitoring, BCOG uses the database KERMIT, which automatically send out deficiency notices. Employees in other units can assign inspectors in the compliance and enforcement unit to particular cases through this database. The database can track the progress and follow-up of compliance and enforcement tools across the organization (BCOG staff, personal communication, September 8, 2015).

NATIONAL ENERGY BOARD (NEB)

The National Energy Board is responsible for regulating imports of natural gas and exports of crude oil, natural gas liquids, natural gas, refined petroleum products and electricity (National Energy Board, 2015a). The *National Energy Board Act* and Regulations stipulate this. Additionally, the Board has regulatory responsibilities for oil and gas exploration and production activities in Canada Lands not otherwise regulated under joint federal/provincial accords (National Energy Board, 2015a). This is stipulated in the *Canada Oil and Gas Operations Act* and *Canada Petroleum Resources Act*.

With respect to compliance and enforcement, the NEB doesn't have a comprehensive policy outlined and is currently developing this along with a risk matrix to classify regulatory offences and violations (NEB employee, personal communication, August 26, 2015). Compliance and enforcement functions are broken down across both the Applications and Operations program areas. Approximately three full time staff are responsible for enforcement and many different staff on the compliance side. The NEB detects non-compliance through conducting compliance verification activities, like inspections, or through an investigation as a result of an incident or high-risk activity (NEB employee, personal communication, August 26, 2015).

The NEB has a number of compliance and enforcement tools available including, letters/notices, corrected non-compliance, notice of non-compliance, corrective action plans, administrative monetary penalties, Board orders, Board Direction, Inspection Officer Orders, revocation of authorization, disallow or suspend tariff and prosecution (National Energy Board, 2015b). The NEB enforces regulatory requirements to obtain compliance, deter future non-compliance, and prevent harm by using the most appropriate tool or tools available. The compliance and enforcement tools are identified in Table 23.

TABLE 31: COMPLIANCE AND ENFORCEMENT TOOLS AT THE NEB

C&E Tool	Description
Letter/notice	Provided if certain activities could lead to non-compliance or it intends to investigate suspected areas of non-compliance
Corrected Non-compliance	Non-compliances observed in the field were addressed while the inspection officer was on-site
Notice of Non-compliance	Issued when non-compliance with a low probability of harm to people or the environment is observed and time is required to address the issue; Inspection officer will determine an effective corrective action, consult with company and propose a reasonable timeline to address NC.
Corrective Action Plans	Developed by regulated companies in response to audit findings of non-compliance or of specific requests of the NEB
Inspection Officer Order	An enforcement tool issued pursuant to section 51.1 of the NEB Act.
Letter of Direction	Direction of the Board
Administrative Monetary Penalties	Financial penalty imposed on individuals or companies in response to contravention of legislative requirements
Orders	Authority to enforce certain requirements or restrict operations through the use of board or safety orders
Revocation of authorization	If NEB lost confidence in the ability of company to operate safely or in a manner that protects the environment, it may consider revoking authorization
Disallow or suspend tariff	Finds that tolls and tariffs applied are not reasonable can suspend them (not applicable in this case)
Prosecution	Refer details of offence to the Office of the

	Attorney General of Canada for prosecution; Board order can also be made to the Federal Court for the purpose of enforcement
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Adapted from the NEB Factsheet on Compliance and Enforcement (2015)

Notices of non-compliance, Administrative Monetary Penalties and Board orders are used most frequently and revoking authorization and prosecution have not been used to date. There is a formal review process for AMPs (NEB employee, personal communication, August 26, 2015). With respect to tracking information, the organization uses three different systems but no comprehensive database. Regulatory investigations are not captured in these databases. There is no formal process for escalation of enforcement actions but staff is currently working on guidance in this area (NEB employee, personal communication, August 26, 2015). The NEB publishes all compliance and enforcement actions initiated on their website. A summary of enforcement and compliance tools utilized from 2011 to 2014 is outlined in Table 24.

TABLE 32: SUMMARY OF NEB ENFORCEMENT AND COMPLIANCE TOOLS UTILIZED (2011-2014)

Year	Letter	Board Order	Inspection Officer Order	Administrative Monetary Penalty	Total
2011	6	3	0	0	9
2012	15	6	6	0	21
2013	15	14	7	0	36
2014	25	8	4	6	43

Adapted from NEB Compliance and Enforcement Table (2015)

In terms of inspections, there are a number of types conducted on an annual basis: safety, emergency management, security, environment, integrity, damage prevention. Inspections are chosen based on follow-up needed, industry activity, such as construction, as well as risk-informed compliance verification planning generated by Intel reports which identify inspections based on risk criteria and priorities (National Energy Board, 2015a). The risk matrix is calculated by multiplying the standard probability and consequence model. Probability is calculated using adequacy, implementation and effectiveness of the company and consequence assesses safety, environment, security and integrity (NEB Staff, personal communication, August 26, 2015). The National Energy Board has more comprehensive inspections than most other jurisdictions. Other compliance verification activities include compliance meetings, audits and incident investigations.

Administrative Monetary Penalties Framework

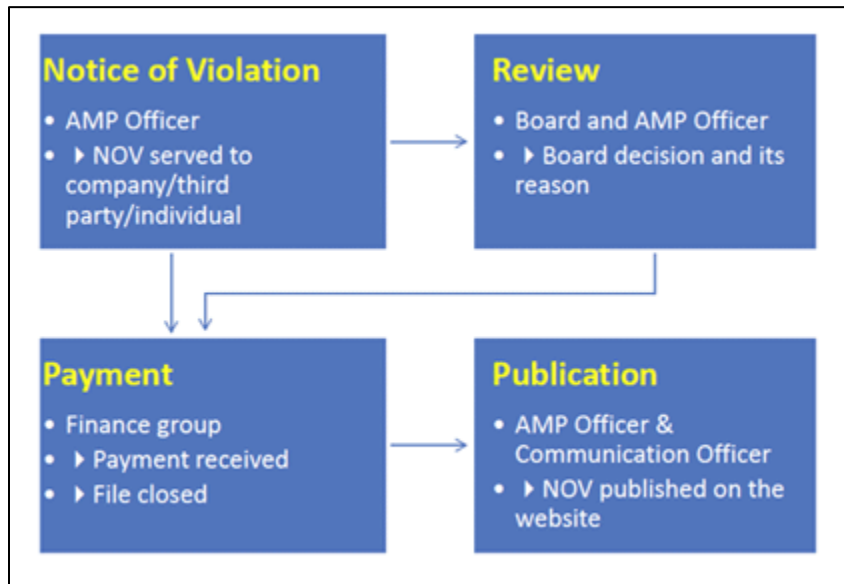
A unique feature at the NEB is the extensiveness of the AMPs framework. The National Energy Board has extensive AMPs procedures and classifications detailed on its website. The Administrative Monetary Penalties Process Guide details the Enforcement policy and AMP calculation, review and recovery process utilized by the NEB. The Administrative Monetary

Penalty Regulations designate each section of the NEB Act and its regulations as a violation and subject it to an AMP if contravened. The AMP regulations came into force on July 3, 2013. The AMP process is built on three principles:

- 1) The process will be administered in a timely manner
- 2) The process will be transparent and predictable
- 3) AMPs will be applied in a fair, impartial and consistent manner (p.4)

A summary of the NEB AMP process is outlined in Figure 3.

FIGURE 3: SUMMARY OF NEB AMP PROCESS



Taken from the National Energy Board (2013) p.4

The NEB has designated every provision in its Act and Regulations as either Type A or Type B according to a list of nine criteria (gravity of violation). The gravity of the violation is determined based on these criteria on a case by case basis by an AMP officer. The nine criteria and the gravity value scores are listed in Figure 15. Penalty amounts are determined by the type of violation, the total gravity value set out by the nine criteria and whether the violation was committed by an individual or a person other than an individual (National Energy Board, 2013). Penalty amounts vary between \$250 and \$12,000 for a Type A violation and \$1,000 and \$100,000 for a Type B violation (National Energy Board, 2013).

FIGURE 4: CRITERIA FOR DETERMINING AMPs

Table

Item	Column 1 Criteria	Column 2 Effect on Gravity Value
1.	Whether the person who committed the violation has other violations in the previous 7 years	0 to +2
2.	Whether the person derived any competitive or economic benefit from the violation	0 to +2
3.	Whether the person made reasonable efforts to mitigate or reverse the violation's effects	-2 to +2
4.	Whether there was negligence on the part of the person who committed the violation	0 to +2
5.	Whether the person provided all reasonable assistance to the Board with respect to the violation	-2 to +2
6.	Whether the person, after becoming aware of the violation, promptly reported the violation to the Board	-2 to +2
7.	Whether the person has taken any steps to prevent recurrence of the violation	-2 to +2
8.	For type B violations, whether the violation was primarily a reporting or record-keeping requirement failure	-2 to 0
9.	Whether there are any other aggravating factors in relation to the risk of harm to people or the environment	0 to +3

Taken from the National Energy Board (2013) p.7

SASKATCHEWAN MINISTRY OF ECONOMY (MOE)

Saskatchewan's Ministry of Economy Petroleum Development Branch is responsible for regulating oil and gas production and development on Saskatchewan provincial lands (Saskatchewan Ministry of Economy, 2012). The Ministry administers the *Department of Energy and Mines Act*, the *Oil and Gas Conservation Act*, the *Crown Minerals Act*, the *Pipelines Act*, the *Mineral Resources Act* and the *Freehold Oil and Gas Production Tax Act*. Currently, there is no comprehensive Ministry wide compliance assurance policy or formal compliance and enforcement group who deals with non-compliance in the oil and gas sector (SK MOE staff, personal discussion, August 24, 2015). However, the organization is currently expanding its compliance and enforcement functions and is seeking to develop a comprehensive compliance assurance policy. There is 17 staff across multiple areas whose roles include data compliance on PETRINEX, 24 environmental enforcement staff and five staff who conduct and coordinate audits (46 employees total) (SK MOE staff, personal communication, August 24, 2015).

In 2012, the organization implemented PETRINEX and Directive R01 – Volumetric, Valuation and Infrastructure Reporting and Directive R02 Enhanced Valuation Audit Program (EVAP) reporting procedures were developed. The implementation of PETRINEX promotes an industry self-declaration type regulatory model.

The MOE utilizes three main enforcement tools: administrative monetary penalties, public notices and orders. It also has the authority to issue fines of up to \$500,000 per day and pursue prosecution under the *Oil and Gas Conservation Act*. Approximately 400 penalties are issued every month (4800 per year). The number of Ministerial orders and public notices issued since 2010 are displayed in Table 25. Ministerial orders and public notices are mandated to be

published by s.19 (1) of the *Oil and Gas Conservation Act*. Prosecution for companies due to non-compliance issues is extremely rare. To determine enforcement actions, there are no firm procedures on what happens if someone is non-compliant and actions are taken on a case-by-case basis based on a number of criteria, severity of offence, and history of the company.

TABLE 33: PUBLIC NOTICES AND MINISTERIAL ORDERS ISSUED (2010-2014)

Year	Public Notices	Orders	Total
2010	109	1484	1593
2011	168	3077	3245
2012	158	3464	3622
2013	185	3405	3590
2014	127	4297	4424

Adapted from the Archived Public Notices and Minister's Orders (MOE, Saskatchewan)

With respect to monitoring compliance and enforcement, the organization utilizes two databases to address non-compliance, PETRINEX and the Integrated Resource Information System (IRIS), an internal system (Saskatchewan Ministry of Economy, 2012). Every month, there is data exchange between IRIS and PETRINEX. In PETRINEX, non-compliance fees and penalties are assessed on non-compliance events which include missing or incomplete data in addition to outstanding, uncorrected errors and missing submissions. Non-compliance errors are generated in the following areas: volumetric balancing and missing data errors, waste plant balancing and missing data errors, pipeline spills compliance and balancing errors, oil valuation compliance and balancing errors and royalty/tax payer missing and incomplete errors (Saskatchewan Ministry of Economy, 2012). With respect to penalty amounts and escalation, there are two levels of penalties under PETRINEX (\$500 and \$100 penalties) (SK MOE staff, personal communication, August 24, 2015). The organization is currently building non-compliance errors on IRIS which applies penalties to data other than volumetric such as well logs and well completion information submissions (SK MOE staff, personal communication, August 24, 2015). The system will go live in November 2015. IRIS penalties are applied at \$10 per day on a case by case basis (SK MOE staff, personal communication, August 24, 2015).

In terms of audits and inspections, the MOE is currently implementing a new production audit program (SK MOE staff, personal communication, August 24, 2015). Environmental inspections are targeted based on the license liability rating program which is grounded in a risk-based approach. Within the environment realm, there are guidelines for conducting site assessments, spill site reclamation guidelines and spill and incident reporting guidelines and reclamation guidelines available on the Government of Saskatchewan website (Saskatchewan Ministry of Economy, 2012).

With respect to communication materials, the MOE publishes PETRINEX TIPs to help with reporting of information for production and volume information but no specific education

materials outlining compliance and enforcement procedures more generally (Saskatchewan Ministry of Economy, 2012).

Shadow Billing Process

The directive R01 specifies that the Ministry may provide a shadow billing period when new compliance errors are introduced or significant changes are made to existing errors which gives companies an opportunity to familiarize themselves with the reporting requirements and correcting any outstanding reporting errors before penalties are actually assessed (Saskatchewan Ministry of Economy, 2012). When Saskatchewan joined PETRINEX, companies were provided shadow billing invoices for a period of six months (Saskatchewan Ministry of Economy, 2012).

PETROLEUM AND MINERAL RESOURCES MANAGEMENT DIRECTORATE – NORTHERN AFFAIRS ORGANIZATION

The management of oil and gas resources on Crown lands north of latitude 60 N is a federal responsibility administered by the Petroleum and Mineral Resources Management Directorate under the Department of Indigenous and Northern Affairs (Aboriginal Affairs and Northern Development Canada, 2013). There are 13 staff in this directorate. The *Canada Petroleum Resources Act* and its regulations govern the granting and administration of Crown exploration and production rights and set the royalty regime (Aboriginal Affairs and Northern Development Canada, 2013). The *Canada Oil and Gas Operations Act* govern the regulation of petroleum operations and associated benefit requirements. Land, royalty and benefit matters are managed by the Department on behalf of the Minister of Aboriginal Affairs and Northern Development while the National Energy Board is responsible for the approval of oil and gas operations and compliance verification and enforcement under the COGOA. Figure 16 shows the jurisdiction the Directorate and NEB govern.

FIGURE 5: JURISDICTION OF OIL AND GAS DEVELOPMENT AND PRODUCTION GOVERNED BY THE PMRMD AND THE NEB



According to the NEB, there is no extensive framework for compliance and enforcement developed for this. The policy and tools would be the same as current NEB enforcement and compliance tools however; administrative monetary penalties are not authorized under the COGOA (NEB staff, personal communication, September 24, 2015). The NEB is currently developing this. The NEB also has the authority to conduct inspections in the Northwest Territories under the OGOA according to the devolution agreement between the NEB and the Government of Northwest Territories (NEB staff, personal communication, September 24, 2015). The Petroleum and Mineral Resources Management Directorate doesn't have any publicly available information on compliance and enforcement procedures or processes. Representatives from this directorate declined an interview. However, the Department manages a risk-based audit and royalty assessment program, where royalty submissions are regularly monitored, periodically reviewed and selected for audits (Mineral and Petroleum Resources Directorate, 2015). Then audit objective is to obtain reasonable audit assurance that the sales revenues and expenses claimed on the monthly oil and gas production were reported accurately in the computation of royalties paid on the Crown (Aboriginal Affairs and Northern Development Canada, 2013) . Under the Canada Petroleum Resources Act, the directorate has the authority to issue orders under sections 12 and 95, and notices to comply under section 105.

5.0 DISCUSSION AND ANALYSIS

[64]

The discussion and analysis section is divided into two subsections. The first subsection compares compliance and enforcement tools and procedures across the nine units and areas at Indian Oil and Gas Canada. The second subsection compares compliance and enforcement tools, activities and processes across the eight jurisdictions assessed in the literature review.

COMPLIANCE AND ENFORCEMENT AT INDIAN OIL AND GAS CANADA

As stated above, Indian Oil and Gas Canada does not have a formal, structured enforcement program under existing policies or procedures. There is also no comprehensive compliance assurance framework that the organization abides by. Within the organization, the nine units and groups who deal with non-compliance have varying degrees of formalization, procedures and standards utilized by employees to address non-compliance issues. Levels of discretion also vary between and within units when determining which enforcement actions to utilize. Table 26 compares the formality, processes and enforcement and compliance tools utilized across the nine different units and areas at IOGC.

TABLE 34: COMPARISON OF COMPLIANCE AND ENFORCEMENT PROCESSES, TOOLS AND ACTIVITIES ACROSS IOGC

Unit/Group	Activity	C&E Formal process	Tools utilized	Forms	Follow-up
Royalty unit	Missing payments and underpayments	No – CGI process map ¹ but no C&E action	Directions to comply	DTC generated through RIMS	No
GCA unit	GCA Annual Submission	Yes - Royalty Reporting Guidelines (Section 5 – GCA)	Reminder email, Appeal process with Director of LRAD	Standard reminder email; appeal process case by case	Yes
Finance unit	Surface rent Other payments	Yes – CGI process maps C&E action	Directions to comply	DTC generated through RIMS	No
Surface Group	Trespass	No – CGI process maps but no C&E action	Cancellation of Lease	Standard template on CIDM	No
Subsurface Group	Trespass	Yes – Follow CGI process maps but no process for determining C&E action	Cancellation of Lease and Termination	Standard template on CIDM	No
Senior Geologist	Failure to submit	Yes – CGI process maps	Informal meetings/phone	None	Yes

¹ CGI process maps were made for every process at IOGC in 2012 by an external consultant

	continuance application		calls Reminder email		
Environment unit	Environmental Audit Management Submission	Yes – IOGC Environmental Procedures and C&E action	Directions to comply CEO to CEO letters	DTC and CEO to CEO standard template	Yes
	Environmental Inspections	Yes – CGI process maps	Notification of deficiencies	No standard template; no standard inspection report template	No
	Remediation Inspections	Yes – Remediation process flowchart (Environmental Procedures)		No standard template for report	No
	CEAA Environmental Audit	Yes – Under CEAA	None	Yes – under CEAA	Yes
Resource Analysis and Compliance unit	Drainage	Yes – CGI process maps	Drainage notices		
Technical Business Support unit	Production Inspections and Audits	Yes – CGI process maps and risk based criteria	Declaration form Meeting with field officers/operator	Standard template for Inspections/Audits	Yes
	Royalty-based Audits	Yes – CGI process maps and risk based criteria	Royalty report	Standard template for audit reports	Yes

According to Table 16, only the GCA unit and the Environment Unit have internal procedures or guidelines in place which internal IOGC staff abides by. The CGI process maps outline current IOGC procedures to issue directions to comply, cancel or terminate leases, evaluate and monitor drainage, and conduct inspections and audits. However, there is no criteria for determining these enforcement actions or follow-up process outlined. In addition, the units and areas at IOGC breadth of enforcement and compliance actions are minimal and do not account for persistent non-compliance.

During the focus group, the following non-compliance issues were identified as high, moderate or low risk according to the impact and likelihood assessment criteria outlined in Appendix H.

FIGURE 6: HIGH, MEDIUM AND LOW NON-COMPLIANCE ISSUES IDENTIFIED AT IOGC

[66]

High	<p>Late payment of royalty dollars</p> <p>Large under/over payments</p> <p>Small companies going bankrupt and not fulfilling terms of contract</p> <p>Implementing AB/SK royalty change</p> <p>Statements going to wrong company</p> <p>Company report payment allocations not correctly or not at all</p> <p>Using incorrect remittance forms for payments</p> <p>Surface trespass without a lease</p> <p>Rental defaults</p> <p>Operating prior to approval (assignment)</p> <p>Lingering lease (no minerals)</p> <p>Subsurface Trespass</p> <p>Well/pipeline failure</p> <p>Incidents (100 m or 50 m from water body)</p> <p>Proximity to residents</p> <p>Cultural and heritage resources</p> <p>Sour wells</p> <p>Unfulfilled commitments (drop dead)</p> <p>Missing data at proration facility</p> <p>High-low fuel gas usage</p> <p>No measurement</p> <p>No gas reported at oil wells</p> <p>Change in operator</p> <p>Facility licensed incorrectly</p>
Moderate	<p>Non-submission of royalty data</p> <p>Transfer of royalty payer Indian interest</p> <p>Major housekeeping</p> <p>Moderate housekeeping</p> <p>Batteries and compressor sites (higher risk for incidents)</p> <p>Species at risk (mod to high) – protected, special concern</p> <p>Drainage</p> <p>No production other than water</p> <p>No difference in proration factors</p> <p>Large metering differences</p> <p>Large Shrinkage</p>
Low	<p>Surface trespass (existing lease)</p> <p>Surface trespass (expired seismic license; no minerals)</p> <p>Minor housekeeping</p>

The majority of non-compliance issues were identified by IOGC staff as high risk indicating a further need for enforcement and compliance tools and procedures that are proportionate and effective to address these.

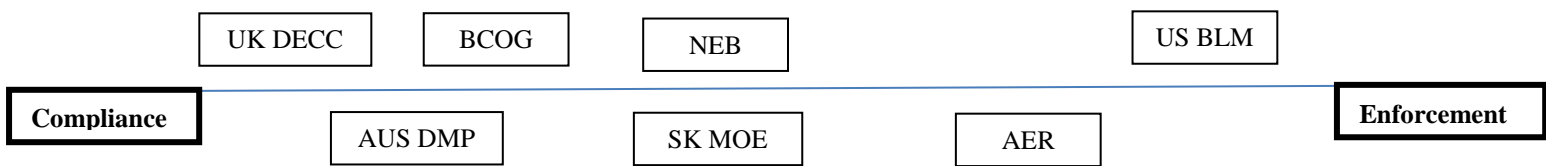
COMPARISONS OF COMPLIANCE AND ENFORCEMENT ACROSS JURISDICTIONS

Compliance and enforcement activities, tools and processes are compared across the eight jurisdictions and Indian Oil and Gas Canada. Of the five Canadian jurisdictions, two of the five, the Alberta Energy Regulator and the BC Oil and Gas Commission have comprehensive compliance and enforcement policies and procedures. Saskatchewan and the National Energy Board have various formal processes for elements of compliance and enforcement such as Saskatchewan’s PETRINEX Directives and the NEB’s AMPs framework but no comprehensive C&E policy. Of the five Canadian jurisdictions, all are shifting or have shifted towards performance-based regulation and a risk-based approach to compliance and enforcement. Three of the five jurisdictions, the NEB, BCOG and the AER have formal appeal processes in place for licensees to appeal enforcement actions; however, the NEB only has a formal appeal process for AMPS not board orders. SK MOE has an informal appeal process to the Director of Petroleum Data Management and Compliance to appeal enforcement actions. The AER and BCOG have a formal voluntary self-disclosure policy outlined in its C&E procedures and the NEB and SK MOE self-disclosure of non-compliance events is more informal. No Canadian jurisdictions indicate any unique policies or procedures for compliance and enforcement on First Nations lands.

Appendix J displays the differences and similarities across jurisdictions with respect to the regulator’s intervention techniques, the classification of enforcement actions, enforcement tools, monitoring enforcement actions, inspections, audits, education/communication, procedures/directives and policy, the appeal process and self-regulation.

Compliance and Enforcement spectrum

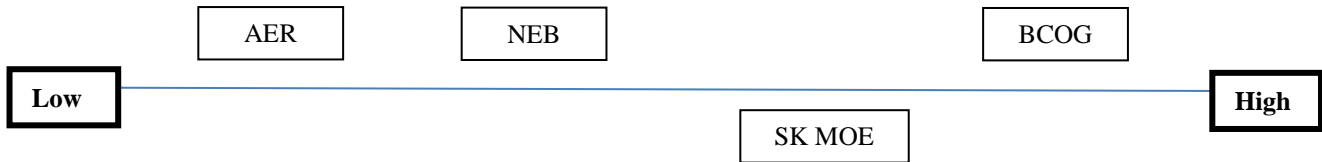
FIGURE 7: COMPLIANCE AND ENFORCEMENT SPECTRUM OF REGULATORY AGENCIES



Of the Canadian jurisdictions assessed, BCOG is the most compliance-oriented with emphasis on its deficiency process. The AER is the most enforcement oriented with a relatively high number of high risk enforcement actions utilized in the past five years.

Level of Discretion

FIGURE 8: LEVEL OF DISCRETION OF REGULATORY AGENCIES COMPLIANCE AND ENFORCEMENT POLICIES



The directives and policies surrounding compliance and enforcement at the AER are very prescriptive, giving enforcement officers little discretion to determine enforcement and compliance classifications of high and low risk and actions. The procedures at BCOG are more discretionary with leeway given to enforcement officers throughout the deficiency process. The procedures and policies at the NEB are more towards the prescriptive side with its regimented AMPs procedures and risk-based inspections. In Saskatchewan, discretion is given to environmental enforcement officers to determine severity of the offence and enforcement actions on a case-by-case basis. However, there are more stringent penalty amounts applied to missing or incorrect administrative deficiencies and on Petrinex.

Number of employees involved with Compliance and Enforcement Activities

Across the Canadian jurisdictions, the number of employees involved with compliance and enforcement processes varies. The largest compliance and enforcement team is the Alberta Energy Regulator. The smallest compliance and enforcement team is Northern Affairs Organization with only 13 employees at the Petroleum and Mineral Resource Directorate with an estimate of 1 to 2 involved in compliance and enforcement.

TABLE 35: NUMBER OF EMPLOYEES INVOLVED WITH COMPLIANCE AND ENFORCEMENT ACTIVITIES

Jurisdiction	Number of employees	Total
AER	Investigation team (7 people), Inspectors (70 people) + technical advisors and operational specialists	77+
BCOG	Inspectors (20 people), Administrative Staff (4 people)	24
SK MOE	Data Compliance team (17 people), Environmental Enforcement (24 people), Audit staff (5 people)	46+
NEB	Inspectors (30 people internally), + operations teams	30+
NOA	13 employees at the Petroleum and Mineral Resource Directorate	1-2

Classification of Enforcement Actions in Canadian Jurisdictions

Both the AER and BCOG have formal processes for determining the classification of offences and selection of enforcement actions. Both the NEB and SK MOE are determined on a case-by-case basis based on a number of criteria.

TABLE 36: CLASSIFICATION OF ENFORCEMENT ACTIONS IN CANADIAN JURISDICTIONS

Jurisdiction	Classification of Enforcement Actions
AER	Comprehensive compliance assurance risk matrix to determine high and low risk offences
BCOG	Deficiency notice process and process map of comprehensive and enforcement processes – determined on a case-by-case basis
SK MOE	Case-by-case basis based on a number of criteria, severity of offence, and history of the company
NEB	No formal process for determining escalation of offences – case-by-case basis; AMPs procedures and determination of penalty amounts prescriptive
NOA	Not specified

Formal Compliance and Enforcement tools utilized

The types of formal compliance and enforcement tools each jurisdiction has authority to utilize. Those marked with an asterisk are the ones utilized most frequently in the Canadian jurisdictions. Frequency of enforcement tools utilized in international jurisdictions and at Northern Affairs Organization was unavailable. As the literature review indicates, there has been an increase in the number of orders issued in the past five years across four Canadian jurisdictions.

TABLE 37: FORMAL COMPLIANCE AND ENFORCEMENT TOOLS UTILIZED ACROSS JURISDICTIONS

Jurisdiction	Warnings	Notice	Orders	Fines	Penalties	Directions	Prosecution
IOGC		(Y)* Direction to Comply	(Y) Suspension of operations	(Y)	(Y) AMPs	(Y) Cancellation/termination of lease	(Y)
UK DECC	(Y) Warning Letter	(Y) Enforcement and Prohibition Notice		(Y)		(Y) Revocation of permit	(Y)
US BLM	(Y) Verbal warnings	(Y) Notices of Violation	(Y) Seven onshore orders	(Y)	(Y) Civil penalties	(Y) Shut down of operations, lease forfeiture under the bond, lease cancellation	

AUS DMP	(Y) Warnings	(Y) Notices of violation, infringement notices	(Y) Suspension or revocation of licenses	(Y)		(Y)	(Y)
AER		(Y)* High and low risk enforcement letters	(Y)* Shut down, closure, abandonment; partial or full suspension	(Y)	(Y) Non-compliance fees; administrative penalty	(Y) Cancellation of permit or license Referred status	(Y)
BCOG		(Y)* Deficiency Notice	(Y)* Mitigate a risk to public safety, protect the environment or to promote the conservation of oil and gas resources	(Y)* Tickets	(Y) AMPs		(Y)
SK MOE		(Y)* Public Notices	(Y)* Ministerial orders	(Y)	(Y)* Administrative penalty		(Y)
NEB	(Y) Warning/notices	(Y)* Notice of non-compliance /	(Y)* Board Orders, Inspection orders, corrective action plans		(Y)* AMPs		
Northern Affairs Organization (AANDC)		(Y) Notices of non-compliance	(Y) Board orders				(Y)

Inspections and Methods for Determining Inspections in Canadian Jurisdictions

All five jurisdictions have the capacity to conduct inspections; however the capacity and methods for determining inspections are varied.

TABLE 38: INSPECTIONS AND METHODS AND DETERMINING INSPECTIONS IN CANADIAN JURISDICTIONS

Jurisdiction	Types of Inspections Conducted	Methods for Determining Inspections	Number of Inspectors
AER	Construction, Operation and Abandonment operations at oil, gas and oil sands facilities (including pipelines, compressors and	Prioritized based on three criteria (operator, sensitivity and inherent risk)	70

	processing plants)		
BCOG	Field and environmental inspections	Assessment Scoring Model based on a number of criteria	20
SK MOE	Environmental inspections	Based on a number of criteria including the license liability rating program but no risk matrix	24
NEB	Safety, emergency management, security, environment, integrity, damage prevention inspections	Risk Matrix (standard probability vs consequence model) to determine priority areas	30
Northern Affairs (AANDC)	None conducted	Same at NEB under the Oil and Gas Operations Act	Not specified

Tracking and Monitoring Compliance and Enforcement in Canadian Jurisdictions

Out of the five Canadian jurisdictions, four out of five have various ways of monitoring and tracking compliance and enforcement activities and actions. Only BC Oil and Gas Commission has a comprehensive database for tracking and monitoring compliance and enforcement activities and actions. Saskatchewan, the National Energy Board and the Alberta Energy Regulator all utilize multiple software systems to track and monitoring non-compliance across a multitude of units but hope to progress to a more comprehensive database.

TABLE 39: TRACKING AND MONITORING COMPLIANCE AND ENFORCEMENT IN CANADIAN JURISDICTIONS

Jurisdiction	Monitoring and Tracking
AER	Field Officers use database to track inspections, however organization is looking to merge database tracking across all functions
BCOG	Compliance and Enforcement staff utilized database called KERMIT to track C&E violations and offences and assign them to inspectors to escalate
SK MOE	Use internal database called IRIS and PETRINEX reporting requirements to find non-compliance but no database.
NEB	Three different systems for tracking compliance and enforcement information but no database. They currently track AMPS on an Excel sheet. This is something they would like to implement in the future.
NAO	None found

Reporting of Enforcement and Compliance Actions/Activities in Canadian Jurisdictions

Seven out of eight jurisdictions assessed in the literature review utilize some form of public reporting to draw attention to offenders and offences or violations committed by the company. Two publish enforcement actions on a quarterly basis, four publish enforcement actions after they occur and one publishes enforcement actions on a case-by-case basis. Within Canada, the National Energy Board and Alberta Energy Regulator report on all compliance and enforcement activities and actions utilized, whereas BC Oil and Gas only reports on enforcement actions (ticket writing, orders and contraventions) and Saskatchewan Ministry of Economy only reports on Ministerial orders mandated by the *Oil and Gas Conservation Act*.

TABLE 40: REPORTING OF ENFORCEMENT AND COMPLIANCE ACTIONS/ACTIVITIES IN CANADIAN JURISDICTIONS

Jurisdiction	Reporting
UK DECC	Publish register of enforcement and prohibition notices and convictions on the public registers database on the DECC website
US BLM	Publish enforcement actions quarterly in the compliance and enforcement newsletter
AUS DMP	Publishes enforcement newsletters (case studies) on the DMP website detailing severe contraventions of the Act or Regulations
AER	Publish on Compliance Dashboard (prior to 2014 on monthly enforcement action newsletters) which is available on the AER website
BCOG	Publish enforcement activities (ticket writing, orders and contraventions) in quarterly enforcement reports
SK MOE	Publish ministerial orders on the website (mandated by legislation)
NEB	Publishes audits, inspection orders, AMPS, investigations, board orders, board letter or directives, corrective action plans and other relevant documents on its website
NAO	None found

Overall, of the Canadian jurisdictions the AER has the most comprehensive compliance and enforcement procedures and policies and the Northern Affairs Organization has the least comprehensive compliance and enforcement procedures and policies. However, Saskatchewan MOE, the National Energy Board, BC Oil and Gas and the Alberta Energy Regulator all have a more comprehensive, structured and effective compliance and enforcement framework than Indian Oil and Gas Canada. Elements of these frameworks will be utilized to make recommendations to develop IOGC's compliance and enforcement framework.

6.0 OPTIONS TO CONSIDER AND RECOMMENDATIONS

Based on the jurisdictional scan and current assessment of IOGC, a number of options to consider for IOGC's compliance and enforcement framework are identified below. Although additional resources would facilitate enforcement, the scope of the paper excludes any recommendations pertaining to finances/budgets and staffing and is limited to assessing what regulatory agencies do under resource constraints typical in the oil and gas regulatory environment.

Recommendation #1: Create a comprehensive compliance assurance and enforcement policy across the organization.

The policy should rest on principles of proportionality, targeting, consistency, transparency and accountability and be grounded in a performance-based and risk-based approach to regulation due to IOGC's limited resources (employees and funding). The policy should be grounded in the three activities stated by the AER: education, prevention and awareness. Implementation of this policy should incorporate OCM principles. In addition, it should link to IOGC's mandate and objectives and identify desired enforcement outcomes across all units and areas in the organization.

- **Sub-recommendation #1:** Develop a compliance assurance risk matrix to classify non-compliance issues across the organization. The risk matrix should utilize the AER's impact and likelihood criteria (health and safety, environmental impact, conservation, stakeholder confidence) as outlined in Appendix H.
- **Sub-recommendation #2:** Develop a compliance and enforcement process map like BCOGs for the new compliance and enforcement unit to follow. Emphasis should be made on the deficiency process rather than enforcement to encourage prevention and awareness of non-compliances
- **Sub-recommendation #3:** Develop a formal appeal process for appeal enforcement actions issued by IOGC staff
- **Sub-recommendation #4:** Develop a policy to deal with persistent non-compliance and include it in the C&E policy
- **Sub-recommendation #5:** Consult with internal IOGC staff, First Nations and Industry to develop the C&E policy to increase buy-in and reduce push-back. This can be achieved short term through consultation and long term through continuous education and awareness.

- **Sub-recommendation #6:** Policy team meet with each of the 9 units/areas and determine a handoff point for escalation of enforcement to the new C&E unit based on their process maps
- **Sub-recommendation #7:** Once all phases of the new regulations are drafted, Policy team meet with individual units/areas to determine AMPs classification and include this classification and process in the C&E policy
- **Sub-recommendation # 8:** Align C&E implementation with Organization Change Management Framework

Recommendation #2: Develop a voluntary self-disclosure policy for contract holders to report non-compliances to IOGC and include it in the compliance and enforcement policy.

The self-disclosure policy should mirror that of BCOG and the AER and encourage non-compliances to be reported to a general C&E email (IOGC to create this). Corrective Action plans and signing of declarations should be encouraged in this process. The shifting of compliance and enforcement responsibility to the licensee is an important part of prevention and awareness. Potential benefits include reduced enforcement actions issued to the offender, increase public safety and environmental protection and a better relationship between Industry, First Nations and IOGC. Consultation with industry and First Nations on this policy is encouraged.

Recommendation #3: Develop a communications plan and materials for reporting of non-compliance activities and incidents as well as education materials to be published on the IOGC website.

The communications materials should include a FAQ fact sheet on compliance and enforcement, a summary of compliance and enforcement policy one-pager, the development of the C&E unit email address and inclusion of C&E activities and actions in the quarterly IOGC reports and annual report to externally report on C&E activities.

- **Sub-recommendation #1: Standardize the terminology of compliance and enforcement tools across units/areas at IOGC and define them in the C&E policy**

Currently a range of C&E terminology is utilized across units and areas at IOGC which is confusing for both staff and external stakeholders (Industry and First Nations). Standardizing and defining the terminology is important to increase transparency and accountability and enable the legislative authority for IOGC to utilize various enforcement and compliance tools. Tools currently utilized by IOGC staff or authorized in the new Regulations and Act include:

- Directions to Comply
- Administrative Monetary Penalties
- CEO to CEO letters

- Reminder emails
 - Orders (suspension of operations, order remedial actions)
 - Declarations
 - Inspections
 - Fines
 - Drainage notices (offset notices)
 - Audits
 - Examinations
- **Sub-recommendation #2:** Create standardized forms for issuing various enforcement actions listed above for all employees to utilize. With respect to inspections, audits and examinations create standard reporting templates for these activities for the inspectors and auditors to complete. Make these templates available on the IOGC website.

Recommendation #4: Include compliance and enforcement activities in future negotiated MOUs between the Provinces and IOGC

The inclusion of compliance and enforcement activities such as conducting joint IOGC-provincial inspections should be included in the MOUs between the Provinces and IOGC. In particular, the requirement of the AER to share inspection reports with IOGC will enable IOGC staff to gain access to information, increase transparency between the two parties and avoid duplication.

Recommendation #5: Monitor and track non-compliance activities on new or existing database

This will enable accurate reporting on compliance and enforcement issues and activities provide employees with information pertaining to compliance and enforcement activities on specific companies or First Nation lands. The number of enforcement actions issued, rate of compliance, alleged offender, type of offence and date of offence should be recorded and utilized for daily operational and performance measurement purposes. All audit and inspection reports should be uploaded to this database for all employees to view, thereby increasing communication between units and areas at IOGC pertaining to this. In the short-term, due to the financial and operational costs of implementing a new system, a business intelligence tool can be utilized to pull information together from the current systems.

Recommendation #6: Follow standardized inspection process, utilize a criteria risk-matrix and participate in enforcement officer training with an external agency (e.g. NEB)

One of the key issues and concerns is the lack of IOGC capability to conduct inspections. Therefore, training of environmental inspectors or the increase of joint Provincial/IOGC inspections is required. Environmental inspectors should have certificates deeming them

enforcement officers and a badge to be easily identified by the FN and industry representatives when out in the field. Enforcement officers should undergo yearly values and ethics training to mitigate the risks of discretion in their job functions.

Recommendation #7: Develop a performance measurement framework for monitoring and evaluating compliance and enforcement policy at IOGC

A comprehensive performance measurement framework is something that all the Canadian jurisdictions' compliance and enforcement frameworks lack and is important for continual improvement and monitoring of the policy once it is implemented. The performance measurement framework should be consistent across all units and areas and can feed into the reporting of non-compliance issues. It can also feed into the performance reviews all IOGC staff. The performance measurement framework should be grounded in compliance and enforcement outcomes the organization wishes to strive for (e.g. education, environment, deterrence, awareness).

- Number of non-compliances per unit/area
- Number of enforcement actions/notices issued per unit/area
- Rate of non-compliance vs. enforcement actions issued per unit/area
- Number and rate of persistent non-compliers

7.0 CONCLUSION

The objectives of this research project were to examine compliance and enforcement frameworks and procedures in other organizations and identify the current compliance and enforcement practices at Indian Oil and Gas Canada to ascertain gaps and inconsistencies between units and areas. This report provides extensive details on compliance and enforcement tools, procedures and activities utilized by other jurisdictions and demonstrate the shift towards performance-based and risk-based regulation with respect to compliance and enforcement in the oil and gas sector.

The literature review identified that most oil and gas regulatory bodies examined have been consistently changing their compliance and enforcement processes and frameworks in the past five years. Other than a general shift towards performance-based regulation and a risk approach to regulation, best practices with respect to compliance and enforcement tools vary according to jurisdiction. A general shift away from prosecution and criminal sentencing is also shown across the jurisdictions as it requires more extensive financial resources and greater evidence to be upheld in court.

In terms of compliance and enforcement practices at Indian Oil and Gas Canada, the interviews and focus groups demonstrated the lack of consistency of dealing with non-compliers across units and areas and the lack of enforcement actions IOGC currently utilizes. There is also no formal follow-up process to deal with non-compliers or persistent non-compliers in many areas and non-compliers are consistently avoiding any punishment associated with their actions. Some IOGC staff believe that the industry is confused or unaware of IOGC's requirements in its Regulations, Act and contracts and more education materials will reduce rates of non-compliance. Others believe that industry is aware of the lack of enforcement capabilities of IOGC and therefore ignores certain requirements of the contract or legislation.

Overall, the literature review, interviews and focus groups provided insight into the compliance and enforcement practices in other jurisdictions and into IOGC's which informed this report.

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APPENDICES

Appendix A – Organization Structure of IOGC pertaining to C&E Functions

Appendix B – Recruitment email for Internal Interviews at IOGC

Appendix C – Participant Consent Form for Internal Interviews

Appendix D – Recruitment email for Internal Focus Group at IOGC

Appendix E – Participant Consent Form for Internal Focus Group

Appendix F – Recruitment email for External Interviews

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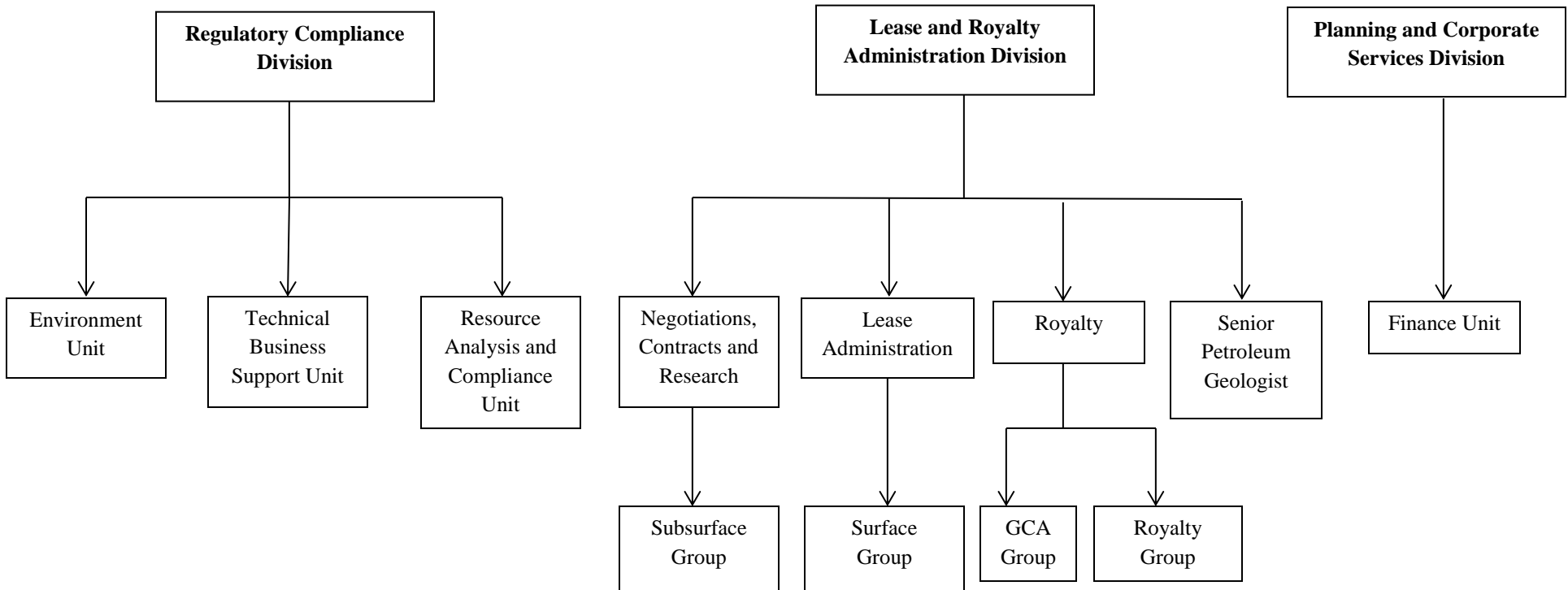
Appendix H – Non-compliance issues identified by IOGC units/areas during focus group

Appendix I – AER Compliance Assurance Risk Matrix

Appendix J – BCOG Overview of Compliance and Enforcement Processes

Appendix K – Overview of Compliance and Enforcement activities, tools and procedures across Jurisdictions

Appendix A: Organizational Structure of Indian Oil and Gas Canada pertaining to Compliance and Enforcement Functions



Appendix B: Recruitment Email for Internal Interviews at IOGC

Dear IOGC staff,

As you are aware, IOGC is currently undergoing regulatory and procedural changes under the Indian Oil and Gas Act, regulations and organizational change framework. One of the areas that has been discussed is compliance and enforcement.

It was identified in 2012 by the organization that the existing enforcement regime provides minimal tools to address minor and moderate violations of the Act and Regulations. The implementation of the new Compliance and Enforcement unit at IOGC seeks to amalgamate and potentially standardize compliance and enforcement measures across divisions and units.

I am conducting a study entitled “**Designing a New Compliance and Enforcement Framework at Indian Oil and Gas Canada.**” The study seeks to identify existing gaps, issues and benefits of the current procedures for enforcement and compliance within and between individual units in the organization. Using this information as well as information acquired by assessing best practices in other jurisdictions, I will propose new procedures and tools for enforcement and compliance which will potentially be implemented by the new compliance and enforcement unit.

In order to do this effectively, your participation is required to further understand the current compliance and enforcement processes and to outline proposed procedures and tools that would be the most useful and effective for employees. There will be two methods of gathering this research:

- a) Focus groups for each division (approximately 1 hour long) – group discussion on various topics surrounding compliance and enforcement
- b) Interviews (approximately 30- 45 minutes long) – on various topics surrounding compliance and enforcement (see attached interview/focus group questions for specific areas of interest)

I am inviting you to participate in an interview. Interviews will be conducted prior to focus groups and all interview participants will be invited to participate in focus groups if they are interested (Indicate your interest in participating in focus groups on the participant consent form by initialing the appropriate line). I would like to stress that participation is strictly voluntary and you are under no obligation to participate. I have received verbal approval from your managers to approach you regarding your participation.

As a side note, the researcher’s relationship to potential participants is at a work colleague level. The client’s relationship (Dan and John) with potential participants is classified as a power-relationship at a supervisor/employee level. To help prevent this relationship from influencing your decision to participate, the following steps to prevent coercion have been taken. The client will not directly be aware of employees who agree to participate and those who decline to participate. In addition, the client will not have access to raw data, rather he will have access to anonymized data. However, it is important to note that there are limits to the researcher’s ability to protect the confidentiality of participants due to the nature of the sample and sample size of the participant pool. This will be reiterated in the attached participant consent form.

[1]

The following documents have been attached to this email for your reference:

1. **Compliance and Enforcement Project Overview – One-pager**
2. **Interview and Focus Group questions**
3. **Participant consent form**

If you **agree** to participate in this study, please email me back:

- a) Your confirmation and fill out the attached Participant Consent Form to be submitted at the beginning of the interview session
- b) Your available time slots between August 13th and August 21st (during work hours) for your participation in an interview.

If you **do not agree** to participate in this study, please email me back stating this.

If you have any questions about the process please contact me at Rebecca.Ro@aandc-aadnc.gc.ca or 289-251-4192.

Thank you,

Rebecca Ro

Policy Unit
Regulatory Compliance Division
Indian Oil and Gas Canada

Appendix C: Participant Consent Form for Internal Interviews

Developing and New Compliance and Enforcement Framework at Indian Oil and Gas Canada

You are invited to participate in a study entitled Developing and New Compliance and Enforcement Framework at Indian Oil and Gas Canada that is being conducted by Rebecca Ro.

Rebecca Ro is a Masters of Public Administration student in the department of Public Administration at the University of Victoria and you may contact her if you have further questions by email rro@uvic.ca or by telephone 289-251-4192.

As a graduate student, I am required to conduct research as part of the requirements for a degree in Public Administration. It is being conducted under the supervision of Dr. Herman Bakvis. You may contact my supervisor at 250-720-8065.

Purpose and Objectives

The purpose of this research project is two-fold. First, to establish a more robust enforcement regime to enable IOGC to have access to appropriate tools to address minor, moderate and severe offences. The second is to establish a procedure for categorizing offences and enforcement mechanisms and outline the roles and responsibilities of the new enforcement team.

Importance of this Research

Research of this type is important because it enables Indian Oil and Gas Canada (IOGC) to address non-compliers using appropriate enforcement tools. By establishing a transparent and robust enforcement regime, Indian Oil and Gas Canada will be more accountable to companies and First Nations, and companies and First Nations will better understand IOGC's compliance and enforcement regime. The potential contribution of this research is that it will contribute to the gap of enforcement and compliance literature in the oil and gas sector.

Participants Selection

You are being asked to participate in this study because your participation is required to further understand current compliance and enforcement processes as well as to identify the most useful and effective enforcement and compliance tools and procedures from the employee perspective.

What is involved

If you consent to voluntarily participate in this research, your participation in a 45 minute interview –an individual discussion session on various issues and themes of compliance and enforcement in the oil and gas sector and your respective organization is required. A transcript will be made by the researcher detailing questions and responses.

Inconvenience

Participation in this study may cause some inconvenience to you, including allocating time to participate in this study from your work schedule.

Risks

There are no known or anticipated risks to you by participating in this research.

Benefits

The potential benefits of your participation in this research include improving procedures and understanding of procedures for compliance and enforcement within the organization resulting in reduced time allocated to and frustration of compliance and enforcement processes. On a broader level, the findings of the study could contribute to the gap in literature on compliance and enforcement within the oil and gas sector in Canada and internationally.

Voluntary Participation

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be used only if the participant gives permission.

Researcher's Relationship with Participants

The researcher's relationship to potential participants is at a work colleague level. The client's relationship with potential participants is classified as a power-relationship at a supervisor/employee level. To help prevent this relationship from influencing your decision to participate, the following steps to prevent coercion have been taken. The client will not directly be aware of employees who agree to participate and those who decline to participate. In addition, the client will not have access to raw data, rather he will have access to anonymized data. However, it is important to note that there are limits to the researcher's ability to protect the confidentiality of participants due to the nature of the sample and sample size of the participant pool.

Anonymity

In terms of protecting your anonymity, there are some limits to the researcher's ability to protect the confidentiality of participants. This is due to the nature of the sample and the sample size (of around 30) makes it possible to identify individual participants.

Confidentiality

Your confidentiality and the confidentiality of the data will be protected by restricted access to the documents on the Comprehensive Integrated Documentation Management system through access control. Any handwritten notes documenting the interview will be transcribed and the paper copies will be shredded. Storage of information after the study is complete will be access controlled so only the researcher has access to the raw data.

Dissemination of Results

It is anticipated that the results of this study will be shared with others in the following ways: through a thesis/dissertation in a confidential environment as well as through a presentation for all IOGC staff. During the presentation to all staff, anonymity of participants will be preserved.

Disposal of Data

Data from this study will not be destroyed and will be kept as a record for IOGC on the Comprehensive Integrated Documentation Management system for reference. Data may be analyzed in the future by other IOGC staff.

I consent to the use of my data in future research: _____ (Participant to provide initials)

I **do not** consent to the use of my data in future research: _____ (Participant to provide initials)

I consent to be contacted in the event my data is requested for future research: _____
(Participant to provide initials)

Appendix D: Recruitment Email for Internal Focus Group at IOGC

Good afternoon IOGC Staff,

As many of you are aware, I am conducted a study called "**Designing a New Compliance and Enforcement Framework at IOGC.**" I am utilized two methods of research: interviews and focus groups to gather information on the current situation at IOGC to help develop recommendations for the study, I have successfully completed my interviews and am emailing you to request your participation in a focus group which is scheduled for **Tuesday, September 22nd from 9:30 to 10:45 am** in the **Large Boardroom**.

The focus group will consist of 3 parts:

- 1) Determining non-compliance issues and risk classification
- 2) Determining compliance and enforcement tools
- 3) Gathering opinions on compliance and enforcement issues and the new unit

This is your opportunity to participate in the discussions surrounding compliance and enforcement and to engage in important inter-team dialogue which will aid the organization in developing a transparent, accountable and proportionate compliance and enforcement policy.

I am looking for 1-2 participants in each of the following areas. Please discuss amongst yourselves who will be your areas representatives and harness opinions from other employees in your area who will not be attending (if possible) prior to the meeting.

LRAD

- Subsurface group
- Surface group
- Royalty group
- GCA group
- Senior Geologist

PCS

- Finance group

RC

- Environment group
- Technical Business support group
- Resource Analysis and compliance group

The following documents are attached for your reference:

- a) Focus Group Format and Instructions*
- b) Compliance and Enforcement Project Overview*
- c) Participant Consent Form for Focus Group*

[6]

If you have any questions please feel free to email me or come by my cubicle. I will be discussing this briefly at stand-up on Monday as well. If you agree to participate, please accept the invitation, fill out the attached participant consent form and bring it to the focus group. If you do not agree to participate, please let me know as well.

Thank you for your ongoing participation and support, I really appreciate it.

Rebecca

Appendix E: Participant Consent Form for Internal Focus Group

Developing a New Compliance and Enforcement Framework at Indian Oil and Gas Canada

You are invited to participate in a study entitled Developing and New Compliance and Enforcement Framework at Indian Oil and Gas Canada that is being conducted by Rebecca Ro.

Rebecca Ro is a Masters of Public Administration student in the department of Public Administration at the University of Victoria and you may contact her if you have further questions by email rro@uvic.ca or by telephone 289-251-4192.

As a graduate student, I am required to conduct research as part of the requirements for a degree in Public Administration. It is being conducted under the supervision of Dr. Herman Bakvis. You may contact my supervisor at 250-720-8065.

Purpose and Objectives

The purpose of this research project is two-fold. First, to establish a more robust enforcement regime to enable IOGC to have access to appropriate tools to address minor, moderate and severe offences. The second is to establish a procedure for categorizing offences and enforcement mechanisms and outline the roles and responsibilities of the new enforcement team.

Importance of this Research

Research of this type is important because it enables Indian Oil and Gas Canada (IOGC) to address non-compliers using appropriate enforcement tools. By establishing a transparent and robust enforcement regime, Indian Oil and Gas Canada will be more accountable to companies and First Nations, and companies and First Nations will better understand IOGC's compliance and enforcement regime. The potential contribution of this research is that it will contribute to the gap of enforcement and compliance literature in the oil and gas sector.

Participants Selection

You are being asked to participate in this study because your participation is required to further understand current compliance and enforcement processes as well as to identify the most useful and effective enforcement and compliance tools and procedures from the employee perspective.

What is involved

If you consent to voluntarily participate in this research, your participation in either a 1 hour focus group, group discussion session on various issues and themes of compliance and enforcement in the oil and gas sector and your respective organization and/or a 45 minute interview, individual discussion session on various issues and themes of compliance and enforcement in the oil and gas sector and your respective organization is required. A transcript will be made by the researcher detailing questions and responses.

Inconvenience

Participation in this study may cause some inconvenience to you, including allocating time to participate in this study from your work schedule.

Risks

There are no known or anticipated risks to you by participating in this research.

Benefits

The potential benefits of your participation in this research include improving procedures and understanding of procedures for compliance and enforcement within the organization resulting in reduced time allocated to and frustration of compliance and enforcement processes. On a broader level, the findings of the study could contribute to the gap in literature on compliance and enforcement within the oil and gas sector in Canada and internationally.

Voluntary Participation

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be used only if the participant gives permission.

Researcher's Relationship with Participants

The researcher's relationship to potential participants is at a work colleague level. The client's relationship with potential participants is classified as a power-relationship at a supervisor/employee level. To help prevent this relationship from influencing your decision to participate, the following steps to prevent coercion have been taken. The client will not directly be aware of employees who agree to participate and those who decline to participate. In addition, the client will not have access to raw data, rather he will have access to anonymized data. However, it is important to note that there are limits to the researcher's ability to protect the confidentiality of participants due to the nature of the sample and sample size of the participant pool.

Anonymity

In terms of protecting your anonymity, there are some limits to the researcher's ability to protect the confidentiality of participants. This is due to the nature of group activities (e.g. focus groups) which cannot guarantee confidentiality of participants. In addition, the nature of the sample and the sample size (of around 30) make it possible to identify individual participants. After the focus group is conducted, participants are required to maintain their own and other participant's anonymity in the future.

Confidentiality

Your confidentiality and the confidentiality of the data will be protected by restricted access to the documents on the Comprehensive Integrated Documentation Management system through access control. Any handwritten notes documenting the interview will be transcribed and the paper copies will be shredded. After the focus group is conducted, participants are required to maintain their own and other participant's confidentiality in the future. Storage of information after the study is complete will be access controlled so only the researcher has access to the raw data.

Dissemination of Results

It is anticipated that the results of this study will be shared with others in the following ways: through a thesis/dissertation in a confidential environment as well as through a presentation for all IOGC staff. During the presentation to all staff, anonymity of participants will be preserved.

Disposal of Data

Data from this study will not be destroyed and will be kept as a record for IOGC on the Comprehensive Integrated Documentation Management system for reference. Data may be analyzed in the future by other IOGC staff.

I consent to the use of my data in future research: _____ (Participant to provide initials)

I **do not** consent to the use of my data in future research: _____ (Participant to provide initials)

I consent to be contacted in the event my data is requested for future research: _____ (Participant to provide initials)

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project.

Name of Participant _____
Signature _____
Date

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix F: Recruitment email for external interviews

Dear [INSERT INTERVIEWEE],

As you may be aware, Indian Oil and Gas Canada, a federal fiduciary body which regulates oil and gas on First Nation reserve land across Canada, is currently undergoing regulatory and procedural changes under the Indian Oil and Gas Act, regulations and organizations change framework. One of the areas that staff would like to be modified is the organization's compliance and enforcement procedures and tools.

For my capstone project as a Masters of Public Administration student at the University of Victoria, I am conducting a study entitled "**Designing a New Compliance and Enforcement Framework at Indian Oil and Gas Canada.**" The study seeks to identify existing gaps, issues and benefits of the current procedures for enforcement and compliance within and between individuals units in the organization. Using this information as well as information acquired by assessing best practices in other jurisdictions, I will propose new procedures and tools for enforcement and compliance which will potentially be implemented by the new compliance and enforcement unit.

In order to do this effectively, your participation is required to further understand the current compliance and enforcement processes in your respective organizations. The method for gathering this research will be 45 minute interviews. These can be conducted either via telephone or in person at your workplace based on your preference and availability.

The following documents are attached for your reference:

- a) **Compliance and Enforcement Project – One-pager**
- b) **Participant Consent Form**
- c) **Interview Questions for your respective organization**

If you agree to participate in this study, please email me back:

- 1) Your confirmation and fill out the attached participant consent form to be submitted at the beginning of the interview session.
- 2) Your availability between August 13th and August 28th for the interview
- 3) Your preference of phone or in person interview

If you do not agree to participate in this study, please email me back stating this.

If you have any questions about the process please contact me at rro@uvic.ca or 289-251-4192.

Thank you,
Rebecca Ro

[11]

Policy Unit, Regulatory Compliance Division
Indian Oil and Gas Canada T: 403-292-6003 E: Rebecca.Ro@aandc-aadnc.gc.ca

Appendix G: Participant Consent form for External Interviews

Developing and New Compliance and Enforcement Framework at Indian Oil and Gas Canada

You are invited to participate in a study entitled Developing and New Compliance and Enforcement Framework at Indian Oil and Gas Canada that is being conducted by Rebecca Ro.

Rebecca Ro is a Masters of Public Administration student in the department of Public Administration at the University of Victoria and you may contact her if you have further questions by email rro@uvic.ca or by telephone 289-251-4192.

As a graduate student, I am required to conduct research as part of the requirements for a degree in Public Administration. It is being conducted under the supervision of Dr. Herman Bakvis. You may contact my supervisor at 250-720-8065.

Purpose and Objectives

The purpose of this research project is two-fold. First, to establish a more robust enforcement regime to enable IOGC to have access to appropriate tools to address minor, moderate and severe offences. The second is to establish a procedure for categorizing offences and enforcement mechanisms and outline the roles and responsibilities of the new enforcement team.

Importance of this Research

Research of this type is important because it enables Indian Oil and Gas Canada (IOGC) to address non-compliers using appropriate enforcement tools. By establishing a transparent and robust enforcement regime, Indian Oil and Gas Canada will be more accountable to companies and First Nations, and companies and First Nations will better understand IOGC's compliance and enforcement regime. The potential contribution of this research is that it will contribute to the gap of enforcement and compliance literature in the oil and gas sector.

Participants Selection

You are being asked to participate in this study because your participation is required to further understand current compliance and enforcement processes as well as to identify the most useful and effective enforcement and compliance tools and procedures from the employee perspective.

What is involved

If you consent to voluntarily participate in this research, your participation in either a 1 hour focus group, group discussion session on various issues and themes of compliance and enforcement in the oil and gas sector and your respective organization and/or a 45 minute interview, individual discussion session on various issues and themes of compliance and enforcement in the oil and gas sector and your respective organization is required. A transcript will be made by the researcher detailing questions and responses.

Inconvenience

Participation in this study may cause some inconvenience to you, including allocating time to participate in this study from your work schedule.

Risks

There are no known or anticipated risks to you by participating in this research.

Benefits

The potential benefits of your participation in this research include improving procedures and understanding of procedures for compliance and enforcement within the organization resulting in reduced time allocated to and frustration of compliance and enforcement processes. On a broader level, the findings of the study could contribute to the gap in literature on compliance and enforcement within the oil and gas sector in Canada and internationally.

Voluntary Participation

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be used only if the participant gives permission.

Anonymity

In terms of protecting your anonymity, there are some limits to the researcher's ability to protect the confidentiality of participants. This is due to the nature of the sample and the sample size (of around 30) make it possible to identify individual participants.

Confidentiality

Your confidentiality and the confidentiality of the data will be protected by restricted access to the documents on the Comprehensive Integrated Documentation Management system through access control. Any handwritten notes documenting the interview will be transcribed and the paper copies will be shredded. Storage of information after the study is complete will be access controlled so only the researcher has access to the raw data.

Dissemination of Results

It is anticipated that the results of this study will be shared with others in the following ways: through a thesis/dissertation in a confidential environment as well as through a presentation for all IOGC staff. During the presentation to all staff, anonymity of participants will be preserved.

Disposal of Data

Data from this study will not be destroyed and will be kept as a record for IOGC on the Comprehensive Integrated Documentation Management system for reference. Data may be analyzed in the future by other IOGC staff.

I consent to the use of my data in future research: _____ (Participant to provide initials)

I **do not** consent to the use of my data in future research: _____ (Participant to provide initials)

I consent to be contacted in the event my data is requested for future research: _____
(Participant to provide initials)

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project.

Name of Participant

Signature

Date

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix H: Non-Compliance issues identified by IOGC units/areas during focus group

Unit/Group	Non-compliance issue	Interaction with other IOGC units/groups	High/Medium/Low Risk
Royalty Unit	Late payment of royalty dollars	Finance	High
	Large under/over payments	Finance	High
	Small companies going bankrupt and failing to pay royalties	Finance, Resource Analysis and Compliance	High
	Implementing AB/SK royalty change	Finance	High
	Non-submission of royalty data	Finance, Resource Analysis and Compliance	Med
	Transfer of royalty payer Indian interest	Finance	Med
GCA Group	Non-submission of GCA		Not specified ²
Finance Unit	Statements go to wrong company		High
	Company report payment allocations not correctly or not at all		High
	Using incorrect remittance forms for payments		High
Surface Group	Surface trespass without a lease	Resource Analysis and Compliance	High
	Rental defaults	Finance, Resource Analysis and Compliance	High
	Operating prior to approval (assignment)		High
	Lingering lease (no minerals)		High
	Surface trespass (expired seismic license; no minerals)	Resource Analysis and Compliance	Low

² Non-compliances were not specified as representatives of this unit/area were not present at the focus group

	Surface trespass (existing lease)	Resource Analysis and Compliance	Low
Subsurface Group	Subsurface trespass		High
	Non-application for service wells		Low
Senior Geologist	Failure to submit application for continuance	Subsurface	Not specified
Environment Unit	Well/pipeline failure	Surface	High
	Incidents (100 m or 50 m H2O body)	“	High
	Proximity to residents	“	High
	Cultural and heritage resources	“	High
	Sour wells	“	High
	Major housekeeping	“	Med
	Moderate housekeeping	“	Med
	Minor housekeeping	“	Low
	Batteries and compressor sites – higher risk for incidents	“	Med
	Species at Risk (Mod to High) – protected, special concern	“	Med
Resource Analysis and Compliance	Drainage	Subsurface	Med
	Unfulfilled commitments (drop dead)		High
Technical Business Support Team – Production Audit and Inspections	No production other than H2O	Environment, Surface, Sub-surface	Med
	No difference in proration factors	“	Med
	Large metering differences	“	Med
	Large Shrinkage	“	Med
	Missing data at proration facility	“	High
	High-low fuel gas usage	“	High
	No measurement	“	High
	No gas reported at oil wells	“	High
Change in operator		High	
Facility licensed incorrectly		High	

Appendix I – AER Compliance Assurance Risk Matrix

Table 1 Qualitative Measures of Consequences

Consequence Categories				
Level	Health and Safety	Environmental Impact	Conservation	Stakeholder Confidence in Regulatory Process
D (4)	Multiple fatalities	Widespread, long-term significant adverse effects on the environment (including soil and groundwater) or a large community. Reclamation lasts ≥ 3 years.	Extensive permanent damage to reservoir.	Widespread concerns, or Extensive provincial or some national adverse media coverage, or No or minimal stakeholder confidence.
C (3)	Multiple serious injuries or one fatality, or Adverse long-term health impact.	Release requiring significant cleanup. Localized, medium-term adverse effects on the environment (soil, air, and surface water). Reclamation lasts < 3 years.	Permanent damage to reservoir.	Widespread concerns, or Ongoing adverse provincial media coverage, or Widespread reduction in stakeholder confidence.
B (2)	Serious injury, or Adverse short-term health impact.	Release with minimal short-term adverse effects on the environment (soil, air, and surface water).	Potential for permanent damage to reservoir.	Localized concerns, or Some adverse provincial media coverage, or Moderate reduction in stakeholder confidence.
A (1)	Minor injuries, or Minimal impact on public.	Release with minimal impact on soil, air, and surface water.	Limited waste of resource.	Localized concerns, or Local media attention, or Small reduction in stakeholder confidence.

Table 2. Qualitative Measures of Likelihood

Level	Descriptor	Description	Probability
IV {4}	Almost certain	Event is expected to occur in most circumstances.	Once or more per year.
III {3}	Likely	Event will probably occur based on current practices.	Once every 3 years.
II {2}	Moderate	Event should occur at some time based on current practices.	Once every 20 years.
I {1}	Unlikely	Event could occur at some time based on current practices.	Less than once every 20 years.

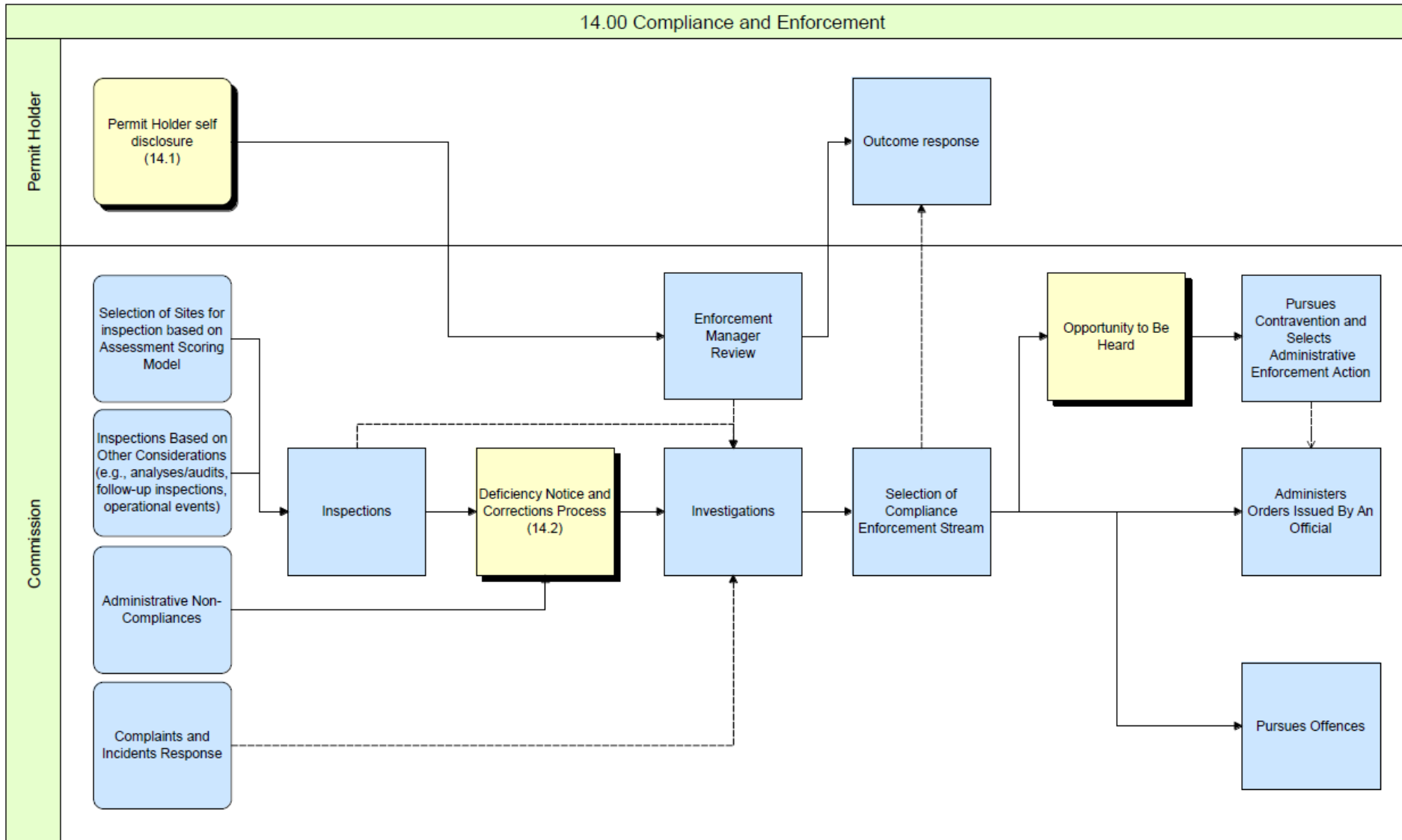
Table 3. Risk Rating Based on Likelihood and Consequences (Risk Assessment Map)

Consequences	Likelihood			
	Unlikely (I) {1}	Moderate (II) {2}	Likely (III) {3}	Almost Certain (IV) {4}
D (4)	5	6	7	8
C (3)	4	5	6	7
B (2)	3	4	5	6
A (1)	2	3	4	5

Table 4. Risk Assessment/Enforcement

Risk Rating	Assessment Results	Enforcement
High 5 to 8	Represents an unacceptable level of risk requiring the inclusion of mitigation measures, provided the benefits outweigh the risks.	High Risk
Low 2 to 4	Represents an acceptable level of risk that requires mitigative measures within an acceptable time frame.	Low Risk

Appendix J: Overview of Compliance and Enforcement Processes at BCOG



Appendix K: Overview of Compliance and Enforcement Activities, Tools and Procedures across Jurisdictions

Jurisdiction	Intervention Techniques	Classification of Enforcement Actions	Enforcement Tools	Monitoring enforcement actions	Inspections	Audits	Education/Communication	Procedures/Directives/Policy	Appeal process	Self-regulation processes
Indian Oil and Gas Canada	Command-and-control	None	Direction to comply, cancellation/termination of lease CEO to CEO letters Declaration forms	None (only RIMS)	Environmental inspections, remediation inspections, production inspections	Royalty-based audits and production audits (criteria-based)	None	No organization wide policy	Informal	Yes – through declarations (production audits)
United Kingdom (Department of Energy and Climate Change)	Risk-based	Utilize principles of enforcement (proportionality, targeting, consistency, transparency and accountability) General principles for use of discretion	Letter, enforcement notice, prohibition notice, revocation of permit, prosecution	Publish register of enforcement and prohibition notices and convictions on the public registers database on website	Environmental (risk-based)	Doesn't specify	Enforcement policy published	DECC Offshore Inspectorate Enforcement Policy	Formal: court appeal process Informal: Local arrangements involving senior management	Not specified
United States (Bureau of Land Management)	Command-and-control but shift towards risk based	Major/minor violations classification (step-by-step process outlined)	Notices of Violations, Incidences of noncompliance, verbal warnings, fines, penalties, orders, follow-up inspections Continued non-compliance: monetary assessment, civil penalties, shut down operations, enter lease, forfeiture under the bond, lease cancellations	Publish actions quarterly in compliance and enforcement newsletter	Conducts eight different types of inspections (approx.. 28,000 conducted in 2014)	Comprehensive audits	Recommended to attend company safety meetings to explain regulatory requirements; one-on-one meetings in the field; hold operator meetings	Oil and Gas Program Enforcement Procedures	May request an administrative review by the State Director within 20 days of issuance; request hearing with Administrative Law judge; appeal decision to court	Proactive measures to achieve compliance
Australia (Department of Mines and Petroleum – Western Australia)	Risk-based	Utilize principles of enforcement (objective, proportionality, transparency, consistency, targeting)	Warnings, notices, amendment to license conditions, directions, suspension or revocation of license, infringement notices, prosecution, due process, cost-effectiveness, policy compatibility	Draw media attention to any conviction that could serve to illustrate the need to comply with requirements	Environmental inspections (Criteria-based)	Environmental Compliance Audits	Enforcement and prosecution policy available online	Enforcement and prosecution policy	Formal appeal process for prosecution	Not specified

Alberta Energy Regulator	Risk-based	Risk assessment matrix	Noncompliance fees, Self-audit or inspections, Increased audits or inspections, Partial or full suspension and/or Suspension and/or cancellation of permit, license or approval, third party audits/inspections, referred status	Published on Compliance Dashboard on website	Inspections on construction, operations and abandonment operations	Regulatory audits	Education is one of the three pillars of the AER's (number of education and communication material published including presentations, FAQs, brochures, guidance information relating to the AER directives, rules and regulations)	Directive 019, AER compliance assurance risk matrix, AER persistent non-compliance framework	To appeal prevention notices and enforcement actions, the licensee is encouraged to discuss it with the AER group prior to filing an appeal with the AER Enforcement Advisor. Appeals must be filed within 60 days of enforcement action issued.	Yes – voluntary self-disclosure policy
BC Oil and Gas Commission	Case-by-case	Case-by-case Same process for repeat offenders	Deficiency notices, Ticket writing, orders, contraventions determinations and penalties under OGAA, prosecution	KERMIT database Quarterly reports detailing offenders of ticket writing, orders, contraventions, penalties	Assessment scoring model	Other units deal with this	None	Compliance and Enforcement Procedure Manual	2 streams decided upon by alleged offender	Yes – permit holder self-disclosure
Saskatchewan Ministry of Economy	Criteria-based	Targeted based on criteria	Non-compliance notices, penalties, ministerial orders, prosecution	Publish ministerial orders on the website	Targeted environmental inspections	Volumetric audits	Petrinex TIPS published on website	Directives but no comprehensive compliance assurance policy	Informal appeal process to Director of Petroleum Data Management and Compliance	None
National Energy Board	Risk-based	No formal process for determining escalation of offences – AMPS and order considered most extreme	Non-compliance notices, administrative monetary penalties, board orders, corrective action plans, notices, revocation of authorization, corrective non-compliance notices, Disallow or suspend tariff, prosecution	Enforcement actions published on NEB website	safety, emergency management, security, environment, integrity, damage prevention inspections	Comprehensive audits,	Factsheets and procedures available on NEB website	No comprehensive compliance assurance policy	Formal appeal process for AMPs but not for board orders; organization currently developing this	None
Petroleum and Mineral Resource Directorate	Command-and-control	None	Notices of non-compliance, orders	None	NEB does this	None	None	No comprehensive compliance assurance policy	None	None

(AANDC)										
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