

### **Fall 2015**

# Reports of the Commissioner of the Environment and Sustainable Development

REPORT 2

**Oversight of Federally Regulated Pipelines** 



#### Performance audit reports

This report presents the results of a performance audit conducted by the Office of the Auditor General of Canada under the authority of the *Auditor General Act*.

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- · report both positive and negative findings,
- · conclude against the established audit objectives, and
- make recommendations for improvement when there are significant differences between criteria and assessed performance.

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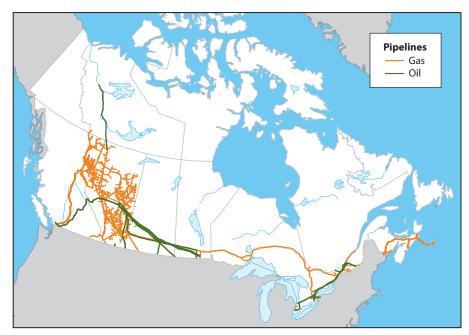
### Introduction

### **Background**

#### Oil and gas pipelines

2.1 Pipelines transport oil and natural gas over long distances, both within Canadian provinces and territories and across boundaries. Pipelines in Canada that lie entirely within a province's boundaries are regulated by that province, while those that cross provincial/territorial or international boundaries are federally regulated (Exhibit 2.1). In 2014, federally regulated pipelines transported approximately \$162 billion worth of oil and gas to Canadian and international customers.

Exhibit 2.1 Major federally regulated oil and gas pipelines as of November 2014



Source: National Energy Board

2.2 Canada's pipeline sector has entered a period of increased activity and scrutiny, driven by rapid growth in the development of the oil sands. The major crude-oil pipeline projects currently at various stages of construction or consideration would nearly double existing capacity by 2020. Several "megaprojects," approved or at various stages of consideration by the National Energy Board (the Board), including Northern Gateway, Trans Mountain Expansion, and Energy East, stand to play a large role in the Canadian pipeline landscape if they are built (Exhibit 2.2). The total investment value of these new projects is reported to be about \$25 billion.

A Approved

Being considered

A North Montney

A Edmonton to Hardisty

C Line 3 Replacement

Keystone XL

Eastern Mainline

Exhibit 2.2 Major pipelines approved (since 2010) or being considered by the National Energy Board

Source: Adapted from the National Energy Board

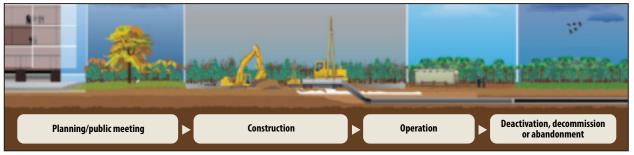
- 2.3 At the same time, public attention to pipeline projects has increased, as reflected in the number of people seeking to participate in project approval hearings. Recent incidents, such as pipeline ruptures in Kalamazoo, Michigan, and near Fort McMurray, Alberta, although not related to pipelines regulated by the National Energy Board, have contributed to this attention. There has also been an increase in interest on issues such as climate change, greenhouse gas emissions, cumulative environmental effects, and the effects of pipelines on Aboriginal groups.
- 2.4 Safe transportation of oil and gas is critical to Canadians, from economic, social, and environmental perspectives. Pipelines require ongoing surveillance and maintenance to ensure that they continue to operate safely, in accordance with applicable regulations and conditions.

#### **Roles and responsibilities**

2.5 **National Energy Board.** The National Energy Board has regulated federal pipelines in Canada since 1959. The Board's purpose is to regulate pipelines, energy development, and trade in the Canadian public interest. The Board defines "public interest" as a balance of economic, environmental, and social considerations that changes as society's values and preferences evolve. The Board is responsible for administering the *National Energy Board Act* and its regulations.

2.6 The Board regulates approximately 73,000 kilometres of pipelines and about 100 companies. The Board's regulatory oversight includes all phases of the pipeline life cycle (Exhibit 2.3). Its role includes verifying that pipeline companies are constructing and operating pipelines in accordance with applicable pipeline approval conditions and regulations. When an emergency occurs on a Board-regulated pipeline, the Board is the lead federal regulatory agency.

Exhibit 2.3 Pipeline life cycle



Source: National Energy Board

- 2.7 Recent years have brought several significant changes to the legislative framework in which the Board operates. In 2012, the *National Energy Board Act* was amended so that the Board now makes a recommendation to the Minister of Natural Resources concerning whether certain pipeline projects (those over 40 kilometres) should be approved, and the final decision is taken by the **Governor in Council**. In 2015, the *Pipeline Safety Act* was passed, amending numerous provisions of the *National Energy Board Act*, including the financial liability requirements for companies as well as the roles and responsibilities of the Board during major pipeline emergencies. This Act will come into force no later than 18 June 2016.
- 2.8 The Board has publicly recognized that it is at the centre of Canadian public debate on pipelines and has recently taken measures to engage Canadians. For example, in 2015, the Board undertook a National Engagement Initiative to listen to Canadians' suggestions on how the Board can adjust its approach to pipeline safety and environmental protection, as well as its public engagement activities and communications. Other initiatives the Board has recently undertaken include holding a public consultation process on the transparency of emergency management information and opening regional offices in Montréal and Vancouver.

**Governor in Council**—The Governor General, acting on the advice of the Privy Council, as the formal executive body that gives legal effect to those decisions of Cabinet that are to have the force of law.

- 2.9 **Natural Resources Canada.** This Department has a mandate to promote the sustainable development and responsible use of Canada's natural resources, including mineral, energy, and forestry resources. It is the federal leader in the energy portfolio, a role that includes setting the government's energy policy framework and strategy. The Department's knowledge assists the government in formulating policies, implementing regulations, enhancing job creation, and meeting its international commitments.
- 2.10 Natural Resources Canada has a key role in the development of federal pipeline policy, legislation, and regulations. In turn, the National Energy Board is responsible for implementing pipeline legislation.
- 2.11 Natural Resources Canada is also the lead federal department responsible for managing energy supply disruptions. In the event of a pipeline incident, Natural Resources Canada is responsible for monitoring the incident and for notifying and providing advice and guidance to the federal government. This responsibility can involve liaising with affected provincial or territorial governments and other energy sector stakeholders.

#### Focus of the audit

- 2.12 The audit focused on key aspects of the National Energy Board oversight of federally regulated pipeline operations. More specifically, it examined whether the Board
  - was verifying that regulated companies were complying with pipeline project approval conditions and regulations,
  - was prepared to fulfill its role in pipeline emergency response and had verified that companies' emergency manuals were complete and up to date, and
  - had assessed its capacity to deliver on its responsibilities.
- 2.13 This audit is important because Canadians rely on the Board to verify that companies are complying with all conditions of pipeline approval and with applicable regulations. The Board's ability to fulfill its roles and responsibilities in emergency preparedness and response, supported by sufficient human resources, is critical to the safe and efficient transportation of oil and gas and to minimizing the risks of pipeline operations to the safety of Canadians and the environment.
- 2.14 More details about the audit objectives, scope, approach, and criteria are in **About the Audit** at the end of this report (see pages 25–28).

### Findings, Recommendations, and Responses

### **Tracking company compliance**

#### Overall finding



- 2.15 Overall, we found that the National Energy Board's (the Board's) tracking of company compliance with pipeline approval conditions was inadequate. Although the Board has taken steps to improve its follow-up on company non-compliances with regulations, more work remains. We also found that the information management systems the Board used for this work were not integrated with each other, and were outdated and inefficient. Finally, we found that the Board has taken steps to improve public access to information on company compliance with regulatory requirements, but has yet to take similar steps for pipeline approval conditions.
- 2.16 This is important because pipeline approval conditions and regulatory requirements exist so that pipelines can be built and operated safely. Effective regulatory oversight by the Board is important to reducing the risk of company non-compliance, and to protecting the safety of Canadians and the environment.

#### Context

- 2.17 As the federal regulator of oil and gas pipelines, the Board has the primary role of ensuring that pipeline approval conditions are implemented by companies. Pipeline approval conditions are project-specific requirements attached to an approval. These conditions are often based on specific concerns of interested parties raised during the approval process, and can pertain to environmental, social, economic, or technical issues. They are established at the time of the initial project approval, but may apply at various stages of the pipeline life cycle.
- 2.18 Pipeline approval conditions may cover a range of topics, such as protection of critical habitat, reporting on economic opportunities for Aboriginal groups, or safety and engineering requirements such as pressure testing. The number of conditions attached to an approval varies; for example, there were 209 conditions for the Northern Gateway pipeline, and 25 conditions for the Brunswick Pipeline. The conditions also vary in complexity. For example, a simple condition could require the company to file a construction schedule. A more complex condition could require a post-construction environmental report that includes environmental issues that arose during construction, the current status of those issues, and any measures and schedules proposed for addressing them.
- 2.19 The Board is also responsible for verifying compliance with regulatory requirements throughout the pipeline life cycle. The *National Energy Board Act* and associated regulations, such as the *National Energy*

Board Onshore Pipeline Regulations, set out a comprehensive set of requirements, in areas such as pipeline integrity, emergency management, safety management, and environmental protection. These requirements apply to all pipelines. While pipeline approval conditions are specific to individual pipelines, regulatory requirements apply to all pipelines.

- 2.20 The Board verifies company compliance with pipeline approval conditions and regulations by conducting compliance verification activities. These activities include inspections, audits, meetings, emergency response exercise evaluations, and reviews of information filed by companies, including emergency procedures manuals. If a compliance verification activity identifies a deficiency in company compliance, the Board is to follow up to verify that the company has taken corrective action.
- 2.21 Overseeing company compliance with conditions and regulatory requirements is how the Board verifies that pipelines are being built and operated in line with the determination that a pipeline project is in the public interest. To fulfill its regulatory mandate, the Board needs to have adequate systems, practices, and tools to track and verify that pipeline companies are in compliance.
- 2.22 In the December 2011 report of the Commissioner of the Environment and Sustainable Development, Chapter 1—Transportation of Dangerous Products, we found that, in cases where the Board had identified gaps and deficiencies through compliance verification activities, it did not always follow up to ensure that these deficiencies had been corrected. The Commissioner recommended that the Board establish and implement a clear action plan to correct these situations, including actions to ensure that follow-up on identified company compliance deficiencies would be carried out and documented in a timely manner.

# The National Energy Board did not always adequately track whether companies satisfy pipeline approval conditions

#### What we found

- 2.23 We found that the Board's tracking and documentation of pipeline approval conditions was adequate for about half (25 out of 49) of the cases we examined. In the remaining 24 cases, the Board's tracking was inaccurate or out of date, key file documentation was missing, or the files lacked a final analysis of a company's submissions and reports or a conclusion as to whether the condition had been fully satisfied.
- 2.24 Our analysis supporting this finding presents what we examined and discusses
  - tracking and documentation.

#### Why this finding matters

2.25 Pipeline approval conditions exist so that pipelines will be built and operated safely. Conditions are a fundamental part of the decision to approve a given pipeline; they are central to the Board's determination as to whether the pipeline is in the public interest. Effective oversight of whether a company has met the conditions is important to reducing the risk of non-compliance, and to protecting the safety of Canadians and the environment.

#### Recommendation

2.26 Our recommendation in this area of examination appears at paragraph 2.33.

# Analysis to support this finding

- 2.27 **What we examined.** We examined whether the Board had implemented a process to track compliance with pipeline approval conditions. We also examined whether the Board, as part of this process, documented its tracking and analysis of compliance with the conditions.
- 2.28 **Tracking and documentation.** To test the Board's process for tracking company compliance with conditions, we used representative sampling to select 49 conditions from among the 1,041 that had been attached to major pipeline approvals between 2000 and 2014, and analyzed information and documentation pertaining to compliance with the selected conditions.
- 2.29 The Board had tracked condition implementation adequately in 25 of the 49 cases. For example, the Board had updated its tracking records, had received and recorded submissions provided by the company, and had documented its analysis and final conclusion as to whether the condition had been implemented to the Board's satisfaction.
- 2.30 In the remaining 24 cases, the conditions had not been adequately tracked and documented. The type of inadequacies varied:
  - the Environment and Safety Information Management System, which is the core information system that the Board used to track compliance, was out of date or inaccurate;
  - Board analysis or conclusion on company compliance was missing; or
  - the desired end result of a condition had not been achieved or properly documented.
- 2.31 For example, for one of the sampled conditions, the company had filed, as required, reports on employment, training, and economic opportunities for Aboriginal groups during the construction phase. However, the Board did not demonstrate that it had assessed these reports, nor that it had received all the required reports from the company.

- 2.32 In another file, we found that the Board had not tracked company compliance with a condition that required the company to file a study to determine the effects on the environment of a combustible rupture of the pipeline. This pipeline ran close to caribou habitat. Board records did not indicate whether this condition was satisfied, despite more than 10 years passing.
- 2.33 **Recommendation.** The National Energy Board should systematically track compliance with pipeline approval conditions and adequately document this oversight work. This documentation should include, for example, notifying companies on the status of achievement of the condition.

**The Board's response.** Agreed. While the National Energy Board monitors companies' compliance with pipeline approval conditions throughout all phases of the pipeline life cycle, the Board is committed to documenting its oversight work in a more rigorous manner.

By December 2016, the Board will clarify and enhance its processes so that company compliance with pipeline approval conditions is tracked and documented more systematically. Also, staff will be trained on the updated processes by this date.

The Board assesses all filings that are made by companies in accordance with pipeline approval conditions. The Board formally notifies companies when they have satisfied a condition that requires Board approval. By December 2016, the Board will complete the analysis to determine whether formal notification to companies concerning the status of achievement of other types of conditions is appropriate, and, if so, the timing and manner of such notification. The analysis will take into account the fact that some pipeline approval conditions apply in an ongoing manner over part or all of a pipeline's life cycle.

# The Board has taken steps to improve its follow-up on company non-compliance with regulatory requirements, but gaps remain

#### What we found

- 2.34 We found that the Board has taken steps to improve its follow-up on deficiencies in company compliance with regulatory requirements. However, we found that in 22 of 42 cases the Board follow-up was either inconsistent or improperly documented. For example, compliance tracking information was out of date or inaccurate, the timeliness of the Board's follow-up varied, or the Board's analysis or conclusion on company compliance was missing.
- 2.35 Our analysis supporting this finding presents what we examined and discusses
  - the Board's follow-up on compliance deficiencies.

#### Why this finding matters

2.36 A primary role of the Board is to verify that companies are building and operating pipelines in accordance with regulatory requirements. The Board's compliance verification work, including effective tracking and documentation of its compliance activities and follow-up of deficiencies, is critical to ensuring that pipelines are secure, and are being built and operated with regard to the safety of Canadians and the environment.

#### Recommendation

2.37 Our recommendation in this area of examination appears at paragraph 2.44.

# Analysis to support this finding

- 2.38 What we examined. We examined whether the Board, in accordance with the recommendation we made in the December 2011 report of the Commissioner of the Environment and Sustainable Development, Chapter 1—Transportation of Dangerous Products, had taken steps to ensure that regulated companies were implementing corrective actions. As part of this, we examined whether the Board carried out and documented, in a timely manner, its follow-up on deficiencies identified in its compliance verification activities.
- 2.39 The Board's follow-up on compliance deficiencies. Board officials told us that it had closed gaps and addressed deficiencies identified in our 2011 audit. The Board developed a corrective action plan that included improvements to its systems and practices for following up on identified compliance deficiencies. For example, the Board put in place a new procedure for follow-up of compliance verification.
- 2.40 Since our last audit, the Board undertook about 950 compliance verification activities between 2012 and 2014. Of these, 252 identified deficiencies in company compliance. To test whether the Board had taken steps to ensure that the companies had taken corrective action, we used representative sampling to select 42 of the 252 compliance deficiencies. We analyzed Board information and documentation on these selected files.
- 2.41 In these 42 files, we noted 22 instances in which follow-up on compliance verification activities was not consistently or properly documented. For example:
  - compliance tracking information was out of date or inaccurate,
  - evidence of compliance to substantiate company corrective action was not provided,
  - timeliness of Board follow-up varied, or
  - Board analysis or final conclusion on company compliance was missing.

- 2.42 During the course of the audit, companies told us that they were often unsure as to whether the Board was fully satisfied with the corrective actions they had taken, because the Board did not always notify the company with a final conclusion.
- 2.43 In one case, for example, a Board inspection had detected numerous liquid sulphur leaks. While the Board had obtained a corrective action plan from the company, it did not conclude whether the corrective action had actually been implemented. In another instance, we found that a company had completed corrective actions and provided required submissions in 2013, but that the Board had not updated its tracking system to reflect this.
- 2.44 **Recommendation.** The National Energy Board should systematically verify that companies implement corrective actions to non-compliance situations within the required timeline. This includes notifying companies when the corrective action is satisfactory. The Board should integrate this work with needed improvements to information management systems.

The Board's response. Agreed. The National Energy Board follows up on all identified non-compliances and tracks corrective actions taken to address non-compliances. The Board has already taken significant steps to enable the more systematic verification of corrective action implementation and is committed to continuing this work.

By June 2016, the Board will further clarify and enhance its processes applicable to corrective action follow-up, in a manner that builds upon the work the Board has already completed. The Board will also, by June 2016, clarify the consequences for companies that do not undertake corrective actions within the Board's required timeline.

The Board communicates its expectations and requirements related to correcting non-compliances to companies in various ways, including through Board and Inspection Officer Orders. By June 2016, the Board will enhance its processes and tools so that, when appropriate, it consistently notifies companies when their corrective actions have met the Board's requirements. Staff will be trained on updated processes.

# The Board's information management systems for tracking company compliance were inadequate

#### What we found

2.45 We found that the Board faced significant, system-wide challenges with the information management tools it used to track company compliance. The Board captured information about regulatory oversight and company compliance in various ways and in several different systems that did not communicate with each other. These tools were not integrated with each other, and they were outdated and inefficient. For example, the Board's core

system for tracking company compliance, the Environment and Safety Information Management System (ESIMS), had limited capability to integrate with other Board systems that hold information about company compliance. The Board has recognized this issue and acknowledged the misalignment between its information management systems and its business needs.

- 2.46 Our analysis supporting this finding presents what we examined and discusses
  - · information management challenges, and
  - steps toward improvement.

#### Why this finding matters

2.47 This finding matters because information management is fundamental to the Board's regulatory oversight. Information about the companies and pipelines the Board regulates is at the centre of its risk-based approach to regulation. Efficient information management systems and processes are necessary for the Board to track its oversight of companies.

#### Recommendation

2.48 Our recommendation in this area of examination appears at paragraph 2.54.

# Analysis to support this finding

- 2.49 **What we examined.** We examined whether the Board had systems and processes in place to track and document compliance with pipeline approval conditions and follow-up on deficiencies in company compliance with regulatory requirements.
- 2.50 **Information management challenges.** The Board has experienced significant challenges with its information management tools and systems. The Board's information management systems and practices lacked interconnection, which caused challenges and delays. The Board has identified the misalignment of information management and technology systems or practices with business requirements as a corporate risk.
- 2.51 For example, the list of pipeline approvals and associated conditions initially provided to us for the period between 2000 and 2014 was missing the more recent pipelines. Although some of those were documented elsewhere on separate tracking sheets, ESIMS was out of date and the Board had to go through a considerable manual search to demonstrate whether companies had taken required corrective actions.
- 2.52 As part of our audit work, we interviewed several Board staff. They described problems such as difficulty in accessing data, and having to input and retrieve data manually. This has caused heavy administrative burdens, risks of human error, and backlogs in processing documentation.

- Steps toward improvement. The Board has acknowledged that it has faced challenges in trying to improve its information management systems. In 2009 and again in 2011, the Board took initial steps toward improvements in this area, but none of the planned projects were implemented. In 2011, the Board noted that the ESIMS database design does not, and will not, meet the needs of the National Energy Board. At the time of the audit, the Board had again taken some steps toward addressing its information management challenges, but had no formal project plan or funding in place.
- Recommendation. The National Energy Board should assess and address its information and data management needs. In doing so, the Board should ensure that its information and data management needs are aligned with the needs of its critical business processes.

**The Board's response.** Agreed. In 2015, the National Energy Board took important steps to modernize its systems for certain critical business processes, including the creation of its online Event Reporting System and electronic Operations Regulatory Compliance Application (ORCA). Through the development of these systems, the Board clarified its data and information needs with respect to incident reporting and inspections.

The Board will continue to build on its improvement efforts in the area of data management. In the 2016–17 fiscal year, the Board will implement the next series of steps to assess and address its information and data management needs. A more comprehensive, integrated system will better support information and data management needs for the Board's critical business processes, such as inspection, audit, and enforcement.

The Board has improved public access to information on companies' compliance with regulatory requirements but not with pipeline approval conditions

#### What we found

- We found that the Board has taken steps to improve public access to information on company compliance with regulatory requirements. For example, in 2011, the Board began posting information on its compliance verification activities. In March 2014, the Board made publicly accessible its Safety and Environmental Performance Dashboard, which presents safety and environmental protection data, such as the number of injuries companies have reported to the Board.
- 2.56 However, we found that public access to information about company compliance with pipeline approval conditions was hindered by the way the information was presented. During the course of the audit, the Board told us that it was taking steps toward improvements that would provide enhanced and timely access to such information.

12

- 2.57 Our analysis supporting this finding presents what we examined and discusses
  - public access to information on company compliance.

#### Why this finding matters

2.58 This finding is important because providing timely, easily locatable and user-friendly access to information is essential to transparency and accountability. It is also important for building and sustaining public confidence in the Board as a regulator. This is particularly true at a time when there is much public debate about pipelines.

#### Recommendation

2.59 Our recommendation in this area of examination appears at paragraph 2.63.

# Analysis to support this finding

- 2.60 **What we examined.** We examined whether the Board provided public access to information about company compliance with pipeline approval conditions and other regulatory requirements.
- 2.61 **Public access to information on company compliance.** The Board put in place an online Safety and Environmental Performance Dashboard in 2014 and also reported compliance information in other parts of its website, such as the "What's New" section. The Board demonstrates transparency when providing the public with information on compliance and enforcement activities.
- 2.62 However, the Board did not post information about company compliance with pipeline approval conditions on its new dashboard. The Regulatory Document Index had some information about condition implementation; however, the Index was complicated and difficult to navigate. The Board did not have formal practices for ensuring clear and timely communication to the public of whether companies were complying with pipeline approval conditions. Board officials told us that it was taking steps toward improvement in this area, but was still at a very early stage.
- 2.63 **Recommendation.** The National Energy Board should provide the public with improved access to information about company compliance with pipeline approval conditions. Specifically, the National Energy Board should ensure that its website incorporates a user-centred design that the public can access and use efficiently.

The Board's response. Agreed. The National Energy Board currently publishes key compliance and enforcement information on its website, with the goal of providing all relevant information related to its compliance and enforcement in a manner that is clear and accessible. The Board's website also contains some information about company compliance with pipeline approval conditions and this information

will be enhanced. By December 2016, the Board will begin to implement its plan to facilitate enhanced access by members of the public to information regarding the status of pipeline approval conditions. This will take place in conjunction with the Board's commitment to clarify and enhance its processes so that company compliance with pipeline approval conditions is tracked and documented systematically and consistently.

### **Emergency preparedness**

#### **Overall finding**



2.64 Overall, we found that although the Board is currently fulfilling its role as lead federal agency in pipeline emergency response in the areas we examined, there are important opportunities for improvement. We found that the Board could consolidate the results of risk assessments to inform its mandate-specific emergency management plan. While the Board has improved its review process for companies' emergency procedures manuals since our last audit, a third of the reviewed manuals still lacked important information. We also observed that the Board has developed and made public an interactive map of spills and other pipeline incidents.

2.65 This finding is important because incidents involving pipelines could lead to significant environmental damage and potential harm to humans. The Federal Policy for Emergency Management requires government institutions to develop mandate-specific emergency management plans, based on an all-hazards risk assessment. Consolidation of all risk assessment activities that the Board conducts will be important as the Board prepares to assume new responsibilities, including powers to take over emergency response in certain circumstances, when the *Pipeline Safety Act* comes into force no later than June 2016.

#### Context

2.66 Pipeline leaks and oil spills have occurred across Canada. While most of these spills were small in volume, pipeline incidents can cause harm to humans and contamination of ecosystems.

2.67 The number of pipeline incidents varies from year to year, though only a small proportion of the incidents qualify as "significant" (Exhibit 2.4). The Board derives from regulations its definition of a "significant" incident as an acute event that causes, for example,

- · a rupture,
- a fire or explosion that causes a pipeline or facility to be inoperative,
- a hydrocarbon release (from a low vapour pipeline) in excess of 1.5 cubic metres that leaves company property or the right of way, or
- death or serious injury.



Exhibit 2.4 Incidents occurred at pipelines regulated by the National Energy Board each year from 2008 to 2014

2.68 The *Emergency Management Act* requires that ministers identify the risks that are within or related to their area of responsibility, and that they prepare, maintain, and test emergency management plans that relate to those risks. As well, the Federal Policy for Emergency Management requires government institutions to develop mandate-specific emergency management plans, based on an **all-hazards risk assessment**, which includes measures to address mitigation or prevention, preparedness, response, and recovery.

2.69 When an incident occurs, coordination among various partners can be critical to adequately responding to the incident. Active engagement and partnership arrangements can play an important role in dealing with overlapping and adjoining jurisdictions, common regulatory objectives, and the need for effective communication.

2.70 Under the *National Energy Board Onshore Pipeline Regulations*, companies are responsible for developing emergency management programs for their pipelines. The Board is responsible for holding federally regulated pipeline companies accountable for operating them safely, including in the event of an emergency. One way the Board does this is by reviewing companies' emergency procedures manuals to ensure that all

Source: Public Safety Canada

All-hazards risk assessment—A process that helps organizations identify, analyze, and prioritize the full range of potential non-malicious and malicious threats. The process takes into account vulnerabilities associated with specific threats, identifies potential consequences should a threat be realized, and considers means to mitigate the risks. "All hazards" refers to the entire spectrum of hazards, whether they are natural (such as a severe weather event or an earthquake) or human induced (such as a terrorist attack or equipment failure).

required information is included and up to date. In our 2011 audit on the transportation of dangerous products, we found that, although the Board had identified gaps and deficiencies in the manuals, there was little indication that it had followed up with companies to ensure that these deficiencies had been corrected.

2.71 The August 2013 Standing Senate Committee on Energy, the Environment and Natural Resources report, *Moving Energy Safely*, observed that providing information to the public is important for building trust. The report recommended that federal regulators such as the National Energy Board work to make current and historical spill and incident data accessible.

2.72 The 2013 Speech from the Throne committed to establishing higher standards for Canada's pipelines. The associated *Pipeline Safety Act*, which passed into law on 18 June 2015, will be coming into force no later than 18 June 2016. This Act amends the *National Energy Board Act* to give the Board new powers, including powers to take over emergency response from operators in certain circumstances.

#### The Board could consolidate its risk assessments into its emergency management plan

#### What we found

2.73 We found that the Board has been identifying and assessing risks associated with pipeline operations in a variety of ways. For example, the Board considers pipeline-specific risks in its review of pipeline project applications, oversees risk assessments performed by companies for their pipelines, and applies a risk model to target its compliance verification activities. We found that the Board could consolidate the results from the various risk assessment activities into an all-hazards risk assessment to better inform its emergency management plan.

2.74 Our analysis supporting this finding presents what we examined and discusses

- risk identification, and
- partnership arrangements.

#### Why this finding matters

2.75 This finding is important because identifying and assessing risks provides the basis for planning prevention and preparedness measures and for informing decisions. Risk assessments are important for determining the likelihood of incidents, and preparing for their potential consequences. For example, this includes identifying which pipelines may require additional regulatory oversight and controls, and prioritizing Board resources accordingly. It is also important that risk be assessed on an ongoing basis and that emergency management plans be adjusted as required.

2.76 A consolidation of risks will be of particular importance for the National Energy Board in the context of the *Pipeline Safety Act*, under which the Board will have additional responsibilities related to emergency response.

#### Recommendation

2.77 Our recommendation in this area of examination appears at paragraph 2.83.

# Analysis to support this finding

- 2.78 **What we examined.** As part of our examination of roles and responsibilities in emergency response, we examined whether the Board had identified the risks related to pipeline incidents, including whether partnership arrangements were in place. We also looked at the role of Natural Resources Canada in pipeline emergency response.
- 2.79 **Risk identification.** The Board identifies and assesses pipeline risks in a variety of ways. For example, it considers risks in its review of pipeline project applications, it oversees risk assessments performed by companies and assesses their emergency management plans, and it uses risk to prioritize its compliance verification plans and activities, including audits and inspections. As the federal regulator, the Board is in an ideal position to have an overarching view of the combined risks on federally regulated pipelines. Consolidating the results of its various risk-assessment activities into an all-hazards risk assessment could better inform its emergency management plan. In our view, this will be an important step in preparing for its new responsibilities under the *Pipeline Safety Act*.
- 2.80 Natural Resources Canada is the federal department responsible for the energy portfolio in Canada, and is the lead federal department responsible for managing energy supply disruptions. In the event of a pipeline incident, Natural Resources Canada is responsible for monitoring, assessing, and providing advice and guidance to Cabinet, as well as other government stakeholders. It also has responsibilities in the development of federal pipeline policy, ultimately implemented through legislation such as the *National Energy Board Act* and the Board's policy framework.
- 2.81 **Partnership arrangements.** Numerous entities could be involved in responding to a major pipeline emergency. The Board is the lead federal regulatory agency, but would need to coordinate with industry stakeholders and other federal departments, such as Natural Resources Canada and Public Safety Canada, as well as with provincial and municipal governments.
- 2.82 The Board established partnership agreements on emergency response to onshore pipelines with two provinces—Alberta (in 2010) and British Columbia (in 2007). The Board has formalized arrangements with federal partners such as Natural Resources Canada and the Transportation Safety Board of Canada, and is developing an agreement with the Canadian Coast Guard. The Board refers to such partnership agreements in its

emergency management plans and procedures. As pipeline networks extend across Canada, the Board could consider building similar relationships with other provincial and federal counterparts as appropriate.

2.83 **Recommendation.** In preparation for its new responsibilities under the *Pipeline Safety Act* (coming into force by June 2016), the National Energy Board, in consultation with Natural Resources Canada, should consolidate the risks identified through its various risk assessment activities into an all-hazards risk assessment to inform its emergency management plan.

The Board's response. Agreed. Risk assessment is an integral part of the Board's decision making and emergency management. The Board conducts a variety of risk assessment activities and is fully prepared to respond in the event of a pipeline emergency. The Board continues to assess risk in the context of its regulatory oversight role and within an integrated, whole-of-government approach.

Emergency management is a priority for the Board and, to be effective, it requires coordination between a variety of partners. The Board has proactively identified and implemented specific measures to improve not only in the areas for which it is accountable, but to exercise leadership to bring together all relevant stakeholders.

The Board welcomes the Pipeline Safety Act as it will strengthen our legislation and expand our toolkit to protect Canadians and the environment.

In the interest of continued improvement, the Board appreciates the recommendation. In connection with its other key emergency management initiatives already under way, the Board will, by June 2016, consolidate its various risk assessment activities related to its mandate into a central document and, in doing so, will consult with Natural Resources Canada as appropriate. This consolidation will explain how the Board's risk assessment activities are integrated with other key Board emergency preparedness measures, such as its emergency response procedures.

The Board has improved its review of company emergency procedures manuals, but a third of the manuals need to be updated

#### What we found

2.84 We found that the Board improved its review process for companies' emergency procedures manuals since our 2011 audit on the transportation of dangerous products. However, the findings from our sample indicate that deficiencies still remained in ensuring that company emergency response procedures were complete and up to date. Out of the 30 manuals in our sample, 10 still lacked necessary documentation.

- 2.85 Our analysis supporting this finding presents what we examined and discusses
  - follow-up on our 2011 audit, and
  - filing requirements for company emergency procedures manuals.

#### Why this finding matters

2.86 This finding matters because each company's emergency procedures manual outlines how the company will respond in the event of an emergency. The Board must ensure that these manuals are complete and up to date, so that, in the event of an emergency, the relevant company has a clear response plan to follow.

#### Recommendation

2.87 We made no recommendation in this area of examination.

### Analysis to support this finding

- 2.88 **What we examined.** We examined whether the Board had taken steps to ensure that companies' emergency procedures manuals are complete and regularly updated in accordance with the recommendations from our 2011 audit on the transportation of dangerous products.
- 2.89 **Follow-up on our 2011 audit.** In our 2011 audit on transportation of dangerous products, we found deficiencies in the Board's review of company emergency procedures manuals. In its corrective action plan, the Board included improvements to its review process of the manuals. To test whether the Board had progressed in ensuring that the manuals were complete, we used representative sampling to select 30 of the 66 manuals that the Board had reviewed.
- 2.90 We found that the Board had identified deficiencies in 25 of these manuals (Exhibit 2.5). Examples of such deficiencies include descriptions and locations of emergency equipment, emergency evacuation routes, and procedures for shutting down the pipeline. The Board had followed up with the company in 19 of these cases, and ultimately 15 of these manuals had had their deficiencies corrected, an improvement over the 2011 results. The Board has reviewed a greater proportion of the manuals, progressing from 61 to 75 percent since our 2011 audit.
- 2.91 Although the Board's review process for manuals had improved to include updated guidance, templates, and training, a third of the manual reviews still lacked various types of documentation, including
  - follow-up from the Board to address noted deficiencies,
  - responses from the company to deficiencies noted by the Board, and
  - final confirmation from the Board that changes made were satisfactory.

Exhibit 2.5 The National Energy Board's reviews led to more deficiencies being corrected in company manuals

	Audit results	
	2011	2015
Number of regulated companies requiring emergency procedures manuals (according to the Board)	83	88
Number of reviews conducted	51 (61%)	66 (75%)
Sample size	30	30
Deficiencies found	30	25
Companies notified of deficiencies	3	19
Deficiencies corrected	1 (3%)	15 (60%)

#### 2.92 Filing requirements for company emergency procedures manuals.

During the course of our audit, the Board changed its filing requirements for emergency procedures manuals. Rather than having companies file updates in hard copy on an as-needed basis, the Board now requires that companies submit at least once a year both hard and electronic copies of the manuals, or a letter indicating that there were no changes to their emergency procedures. This change is intended to ensure that the Board has up-to-date versions of the manuals, and will allow Board staff timely access to the appropriate manual during an incident to ensure that the company is following its emergency procedures.

#### The Board has provided public access to information on pipeline incidents

#### What we found

- 2.93 We found that the Board has developed an interactive map of spills and incidents and made it accessible to the public.
- 2.94 Our analysis supporting this finding presents what we examined and discusses
  - the Board's online interactive incident map.

#### Why this finding matters

2.95 This finding matters because public access to reliable and timely information on spills and incidents is fundamental to increasing transparency and building public confidence.

#### Recommendations

2.96 We made no recommendations in this area of examination.

# Analysis to support this finding

- 2.97 **What we examined.** We examined whether the Board provided public access to reliable information on spills and incidents.
- 2.98 The Board's online interactive incident map. We found that, during the course of our audit, the Board released an interactive map of historical incident information on its website. The map provides information such as the location of a given spill, the reported date, the nearest population centre, and the volume of product released. We noted that the Board has put in place a quality control procedure to monitor the accuracy of incident data. This is an important step toward providing the public with consistent information on historical incidents and spills.
- 2.99 However, the map does not include information on incidents outside the Board's jurisdiction. Stakeholders and other agencies such as the Alberta Energy Regulator, the Canadian Energy Pipeline Association, and the Transportation Safety Board of Canada also collect information on pipeline incidents. The National Energy Board may wish to consider and discuss with partners the merit of integrating all information on incidents in one map.

### **Capacity**

#### The Board has faced ongoing challenges to recruit and retain key staff

#### Overall finding

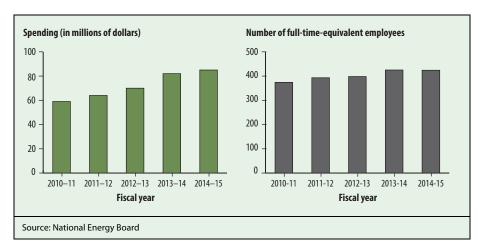


- 2.100 Overall, we found that although the National Energy Board had taken steps to address the issues, it has experienced challenges in recruiting and retaining skilled and experienced staff. This was particularly true for certain types of high-demand job families, such as engineering.
- 2.101 This is important because the Board relies on specific expertise to conduct its pipeline approval process and perform its oversight of pipeline operations, to verify that pipelines are being built and operated safely.
- 2.102 Our analysis supporting this finding presents what we examined and discusses
  - · attraction and retention challenges, and
  - steps taken to address these challenges.

#### Context

2.103 The Board's human and financial resources have increased over the past five years (Exhibit 2.6). The number of full-time-equivalent employees includes part-time and full-time indeterminate employees, as well as term employees.

Exhibit 2.6 The National Energy Board's resources have increased from the 2010-11 to the 2014-15 fiscal years



2.104 Following changes to the National Energy Board Act, the Board reported in the 2013-14 fiscal year an increase in its annual number of safety oversight inspections, from 100 to 150, and its number of audits, from 3 to 6. Also, the Board has experienced an increase in its workload due to the number of compliance activities as well as the complexity of new pipeline applications. If new pipelines are approved and begin to operate, the Board's workload will increase.

#### Recommendation

2.105 Our recommendation in this area of examination appears at paragraph 2.114.

#### **Analysis to support** this finding

2.106 What we examined. We examined whether the Board has assessed whether it had the capacity to fulfill its roles and responsibilities in the context of pipeline regulation.

2.107 The Board has assessed its human resource capacity through a variety of means since 2010. For example, it has conducted analyses, produced strategies, and kept track of its attrition rates and other variables. The Board has identified the need for specialists in areas such as pipeline integrity management, safety management systems, emergency response, and environmental and regulatory compliance.

2.108 **Attraction and retention challenges.** Our review of key documents indicated that the Board had ongoing concerns with its ability to recruit and retain staff—particularly in the safety and engineering job family. The Board identified these resource constraints as factors that could limit its ability to perform all its compliance verification and monitoring activities. Over the past 10 years, attrition rates in this job family have varied from a high of 29 percent in the 2007–08 fiscal year to 6 percent in 2014–15. The Board noted that the retirement rate alone in this job family could total around 25 percent over the next five years.

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- 2.109 According to Board documents, there was an ongoing need for senior engineers. The competitive energy industry job market has also made staffing mid-level engineering positions persistently difficult. Board documents show that new positions could take time to fill and are often staffed by engineers who require additional technical training (for example, on pipeline integrity) to meet regulatory requirements of these positions. Furthermore, after a few years of training at the Board, staff might move on to work in industry.
- 2.110 The Board conducts capacity assessments every few years for each of its job families. Such assessments consider demographics of the job family, gaps in technical or process skills, and anticipated workload. The assessments are used to review changes and make recommendations for staffing, rotation, training, and development. We noted that unlike other high-demand job families that underwent a capacity assessment in 2013, the safety and engineering job family had not been assessed since 2010.
- 2.111 The Board has received temporary funding to hire staff to deal with the increase in applications and operations requirements since 2012. The number of term employees has more than doubled over the past three years. Still, hiring staff in a timely manner has proven difficult. For example, the Board was unable to meet its 50-day target time to complete staffing processes during the first three quarters of the 2014–15 fiscal year.
- 2.112 **Steps taken to address these challenges.** The Board was aware of these issues and has taken steps to address them. For example, it put in place a number of measures to retain staff, from work-life balance accommodations to moving internal experienced staff to higher-level positions in acting assignments. The Board also hired consultants to fill the gaps and to conduct integrity and emergency management audits.
- 2.113 An increase in approved pipelines will increase requirements for compliance oversight as well. The newly approved *Pipeline Safety Act* will also add to the Board's existing responsibilities, when it comes into force no later than 18 June 2016. A successful recruitment and retention plan will be important to meeting these challenges.
- 2.114 **Recommendation.** The National Energy Board should review its overall resource assessment and, in consultation with other relevant federal authorities, where appropriate, should further explore avenues to address and resolve its challenges in the recruitment and retention of key staff.
- The Board's response. Agreed. The National Energy Board is committed to attracting, retaining, and developing highly qualified staff, and has done so through the implementation of a variety of strategies and measures that have worked to mitigate the risks associated with recruitment and retention of staff.

While challenges exist, they are not unique to the Board and are faced by other Canadian employers, including in the oil and gas industry. The Board will continue to seek constructive and flexible solutions to attract and retain highly skilled individuals and, in doing so, will consult with other relevant federal authorities where appropriate.

By April 2016, the Board will complete an updated technical capacity assessment for the engineering subset of the Engineering and Safety job family. In addition, the Board will continue to review its overall resource assessment on an ongoing basis.

### **Conclusion**

2.115 Our audit examined some key aspects of National Energy Board regulatory oversight of federal pipelines. Overall, there was progress in some areas, such as providing more access to information on incidents and compliance. However, we observed that the Board needs to do more to effectively adapt and evolve to keep pace with pipeline project proposals, the corresponding public interest and expectations, and recent regulatory changes.

2.116 We concluded that the Board did not adequately track company implementation of pipeline approval conditions, or consistently follow up on deficiencies in company compliance with regulatory requirements. Although the Board could demonstrate through a manual search of its records that companies had taken most of the required corrective actions, the information management systems used for this purpose were not integrated with each other, and were outdated and inefficient.

2.117 We concluded that the Board has been fulfilling its current role as lead federal regulatory agency in pipeline emergency response but could consolidate risks with its emergency management plan in preparation for new responsibilities under the *Pipeline Safety Act*, to come into force by 18 June 2016. We also noted that the Board has improved its review of company emergency procedures manuals since our last audit and enhanced public access to information on pipeline incidents.

2.118 We also concluded that, although the National Energy Board has assessed its human resource capacity and has taken steps to address the issues identified, it is still facing ongoing challenges to recruit and retain specialists in key areas such as pipeline integrity and regulatory compliance.

### **About the Audit**

The Office of the Auditor General's responsibility was to conduct an independent examination of federal pipeline oversight, to provide objective information, advice, and assurance to assist Parliament in its scrutiny of the government's management of resources and programs.

All of the audit work in this report was conducted in accordance with the standards for assurance engagements set out by the Chartered Professional Accountants of Canada (CPA) in the CPA Canada Handbook—Assurance. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

As part of our regular audit process, we obtained management's confirmation that the findings in this report are factually based.

### **Objectives**

The audit examined key aspects of the federal oversight of pipeline operations, as outlined in the following audit objectives:

- to determine whether the National Energy Board has verified that regulated companies are complying with pipeline approval conditions and other key regulatory requirements;
- to determine whether the National Energy Board was prepared to fulfill its role as lead federal regulatory agency in pipeline emergency response; and
- to determine whether the National Energy Board has determined whether it has the capacity necessary to fulfill its roles and responsibilities in the context of pipeline regulation.

#### Scope and approach

The audit was conducted through interviews with key Board and departmental officials and industry stakeholders and examination of Board and departmental policies and procedures related to the oversight of pipelines.

The audit included an examination of a sample of compliance activities carried out by the National Energy Board to determine whether regulated companies were complying with pipeline approval conditions and key regulatory requirements. The audit also included an examination of a sample of emergency procedures manuals submitted by regulated companies, to determine whether the National Energy Board had ensured that the manuals were complete and updated in accordance with its response to our 2011 recommendation. Where representative sampling was used, sample sizes were sufficient to report on the sampled population with a confidence level of 90 percent and a margin of error of +10 percent. Pipeline approval conditions captured in our sample were between 2000 and 2014. Our sample on compliance verification activities captured activities where deficiencies were found between 2012 and 2014. Approximately a third of the reviews of emergency procedures manuals captured in our sample were conducted prior to 2011, with the rest conducted since 2011.

<sup>&</sup>lt;sup>1</sup> In the context of this audit, capacity includes both the competencies and the number of staff.

The audit did not examine the federal pipeline approval process. This area was recently examined in the 2014 Fall Report of the Commissioner of the Environment and Sustainable Development, Chapter 4—Implementation of the *Canadian Environmental Assessment Act, 2012*. We also excluded the National Energy Board's responsibilities for tolls, tariffs, and power lines, as well as its responsibilities for exports and imports of oil and gas and exploration and development of frontier lands and offshore areas.

During the course of our audit, the *Pipeline Safety Act* was passed into law, and will come into force no later than 18 June 2016. For this reason, it was not included in the scope of our audit but is referred to for contextual purposes.

#### Criteria

Criteria	Sources	
To determine whether the National Energy Board (the Board) is verifying that regulated companies are complying with pipeline project approval conditions and other key regulatory requirements, we used the following criteria:		
The Board verifies that regulated companies comply	National Energy Board Act	
with approval conditions placed on pipeline projects.	Strategic Plan, National Energy Board	
	Operations Management Procedures, National Energy Board	
	Pipeline project approval conditions stipulated as part of certificates of public convenience and necessity	
The Board takes steps to ensure that corrective actions are implemented by regulated companies in accordance with our 2011 audit findings.	2011 December Report of the Commissioner of the Environment and Sustainable Development, Chapter 1—Transportation of Dangerous Products, Recommendation 1.78, the related response of the National Energy Board, and the related corrective action plan produced by the Board	
	National Energy Board Act	
	Compliance Verification Activity Follow-up Procedure, National Energy Board	
The Board provides public access to information	Cabinet Directive on Regulatory Management	
concerning company compliance with project approval conditions and other regulatory requirements in a timely and accessible manner.	Communications Policy of the Government of Canada, Treasury Board, 2012	
	Strategic Plan, National Energy Board	

Criteria	Sources	
To determine whether the National Energy Board is prepared to fulfill its role as lead federal regulatory agency in pipeline emergency response, we used the following criteria:		
The Board clearly defines the risks, roles, responsibilities,	National Energy Board Act	
and resources required to fulfill its role as lead federal regulatory agency in pipeline emergency response.	National Energy Board Onshore Pipeline Regulations	
	Emergency Management Act	
	Emergency Preparedness and Response: A National Standard of Canada, Canadian Standards Association	
	Federal Policy for Emergency Management, Public Safety Canada	
	Guidelines for Portfolio Coordination: Management Accountability Framework Considerations and Overview of Practices, Treasury Board of Canada Secretariat	
The Board takes steps to ensure that company emergency procedures manuals are complete and regularly updated in accordance with our 2011 audit findings.	2011 December Report of the Commissioner of the Environment and Sustainable Development, Chapter 1—Transportation of Dangerous Products, Recommendation 1.78, the related response of the National Energy Board, and the related corrective action plan produced by the Board	
	National Energy Board Act	
	National Energy Board Onshore Pipeline Regulations	
	National Energy Board's current internal guidelines for checking operator emergency procedures manuals	
The Board provides public access to reliable information	Strategic Plan, National Energy Board	
on spills and incidents.	Communications Policy of the Government of Canada, Treasury Board, 2012	
	Moving Energy Safely: A Study of the Safe Transport of Hydrocarbons by Pipelines, Tankers and Railcars in Canada, Standing Senate Committee on Energy, the Environment and Natural Resources	
To determine whether the National Energy Board has determined whether it has the capacity necessary to fulfill its roles and responsibilities in the context of pipeline regulation, we used the following criterion:		
The Board assesses its capacity to fulfill its roles and responsibilities in the context of pipeline regulation and has taken steps, if necessary, to address shortfalls.	Integrated Planning Handbook for Deputy Ministers and Senior Managers, Treasury Board of Canada Secretariat, 2008	
	Management Accountability Framework, Treasury     Board of Canada Secretariat	
	Cabinet Directive on Regulatory Management	

Management reviewed and accepted the suitability of the criteria used in the audit.

#### Period covered by the audit

The audit covered the period between January 2012 and July 2015. However, for the line of enquiry related to compliance with pipeline approval conditions, our sample included pipelines that were approved between 2000 and 2014. Our sample of the Board's reviews of emergency procedures manuals included reviews conducted between 2008 and 2014.

Audit work for this report was completed on 5 October 2015.

#### **Audit team**

Principal: Kimberley Leach Director: Francine Richard

Jean-Pascal Faubert Kate Kooka Kyla Tanner Alexandre Tremblay David Wright

### **List of Recommendations**

The following is a list of recommendations found in this report. The number in front of the recommendation indicates the paragraph where it appears in the report. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Response
Tracking company compliance	
2.33 The National Energy Board should systematically track compliance with pipeline approval conditions and adequately document this oversight work. This documentation should include, for example, notifying companies on the status of achievement of the condition. (2.23–2.32)	The Board's response. Agreed. While the National Energy Board monitors companies' compliance with pipeline approval conditions throughout all phases of the pipeline life cycle, the Board is committed to documenting its oversight work in a more rigorous manner.  By December 2016, the Board will clarify and enhance its processes so that company compliance with pipeline approval conditions is tracked and documented more systematically. Also, staff will be trained on the updated processes by this date.
	The Board assesses all filings that are made by companies in accordance with pipeline approval conditions. The Board formally notifies companies when they have satisfied a condition that requires Board approval. By December 2016, the Board will complete the analysis to determine whether formal notification to companies concerning the status of achievement of other types of conditions is appropriate, and, if so, the timing and manner of such notification. The analysis will take into account the fact that some pipeline approval conditions apply in an ongoing manner over part or all of a pipeline's life cycle.
<b>2.44</b> The National Energy Board should systematically verify that companies implement corrective actions to non-compliance situations within the required timeline. This includes notifying	<b>The Board's response.</b> Agreed. The National Energy Board follows up on all identified non-compliances and tracks corrective actions taken to address non-compliances. The Board has already taken significant steps to enable the more systematic verification of corrective action implementation and is committed to continuing this work.
companies when the corrective action is satisfactory. The Board should integrate this work with needed improvements to information management systems.  (2.34–2.43)	By June 2016, the Board will further clarify and enhance its processes applicable to corrective action follow-up, in a manner that builds upon the work the Board has already completed. The Board will also, by June 2016, clarify the consequences for companies that do not undertake corrective actions within the Board's required timeline.
	The Board communicates its expectations and requirements related to correcting non-compliances to companies in various ways, including through Board and Inspection Officer Orders. By June 2016, the Board will enhance its processes and tools so that, when appropriate, it consistently notifies companies when their corrective actions have met the Board's requirements. Staff will be trained on updated processes.

#### Recommendation Response

2.54 The National Energy Board should assess and address its information and data management needs. In doing so, the Board should ensure that its information and data management needs are aligned with the needs of its critical business processes. (2.45–2.53)

**The Board's response.** Agreed. In 2015, the National Energy Board took important steps to modernize its systems for certain critical business processes, including the creation of its online Event Reporting System and electronic Operations Regulatory Compliance Application (ORCA). Through the development of these systems, the Board clarified its data and information needs with respect to incident reporting and inspections.

The Board will continue to build on its improvement efforts in the area of data management. In the 2016–17 fiscal year, the Board will implement the next series of steps to assess and address its information and data management needs. A more comprehensive, integrated system will better support information and data management needs for the Board's critical business processes, such as inspection, audit, and enforcement.

2.63 The National Energy Board should provide the public with improved access to information about company compliance with pipeline approval conditions. Specifically, the National Energy Board should ensure that its website incorporates a user-centred design that the public can access and use efficiently. (2.55–2.62)

The Board's response. Agreed. The National Energy Board currently publishes key compliance and enforcement information on its website, with the goal of providing all relevant information related to its compliance and enforcement in a manner that is clear and accessible. The Board's website also contains some information about company compliance with pipeline approval conditions and this information will be enhanced. By December 2016, the Board will begin to implement its plan to facilitate enhanced access by members of the public to information regarding the status of pipeline approval conditions. This will take place in conjunction with the Board's commitment to clarify and enhance its processes so that company compliance with pipeline approval conditions is tracked and documented systematically and consistently.

#### **Emergency preparedness**

2.83 In preparation for its new responsibilities under the *Pipeline Safety Act* (coming into force by June 2016), the National Energy Board, in consultation with Natural Resources Canada, should consolidate the risks identified through its various risk assessment activities into an all-hazards risk assessment to inform its emergency management plan. (2.73–2.82)

**The Board's response.** Agreed. Risk assessment is an integral part of the Board's decision making and emergency management. The Board conducts a variety of risk assessment activities and is fully prepared to respond in the event of a pipeline emergency. The Board continues to assess risk in the context of its regulatory oversight role and within an integrated, whole-of-government approach.

Emergency management is a priority for the Board and, to be effective, it requires coordination between a variety of partners. The Board has proactively identified and implemented specific measures to improve not only in the areas for which it is accountable, but to exercise leadership to bring together all relevant stakeholders.

The Board welcomes the *Pipeline Safety Act* as it will strengthen our legislation and expand our toolkit to protect Canadians and the environment.

In the interest of continued improvement, the Board appreciates the recommendation. In connection with its other key emergency management initiatives already under way, the Board will, by June 2016, consolidate its various risk assessment activities related

Recommendation	Response
	to its mandate into a central document and, in doing so, will consult with Natural Resources Canada as appropriate. This consolidation will explain how the Board's risk assessment activities are integrated with other key Board emergency preparedness measures, such as its emergency response procedures.

#### Capacity

2.114 The National Energy Board should review its overall resource assessment and, in consultation with other relevant federal authorities, where appropriate, should further explore avenues to address and resolve its challenges in the recruitment and retention of key staff. (2.106–2.113)

**The Board's response.** Agreed. The National Energy Board is committed to attracting, retaining, and developing highly qualified staff, and has done so through the implementation of a variety of strategies and measures that have worked to mitigate the risks associated with recruitment and retention of staff.

While challenges exist, they are not unique to the Board and are faced by other Canadian employers, including in the oil and gas industry. The Board will continue to seek constructive and flexible solutions to attract and retain highly skilled individuals and, in doing so, will consult with other relevant federal authorities where appropriate.

By April 2016, the Board will complete an updated technical capacity assessment for the engineering subset of the Engineering and Safety job family. In addition, the Board will continue to review its overall resource assessment on an ongoing basis.