

WRITTEN STATEMENT

PRESENTATION TO HOUSE ENERGY AND COMMERCE
COMMITTEE
SUBCOMMITTEE ON ENERGY AND POWER

DAN MCFADYEN, CHAIRMAN
ENERGY RESOURCES CONSERVATION BOARD OF ALBERTA

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Alberta's Regulatory Regime for Oil Sands Development

SUMMARY OF MAJOR POINTS

- Alberta's regulatory regime is comprehensive and transparent, with stringent legislation and regulations designed to ensure development proceeds in the public interest.

- Every oil sands project is subjected to regulatory scrutiny throughout its life cycle, from authorization and operational compliance to end-of-life closure.

- On every application we examine, we look at three criteria to determine if a project is in the public interest:
 - Environmental protection including cumulative effects
 - Societal impacts
 - Economic impacts

- Our regulatory framework is founded on sound science and continuous improvement.

Two recent regulatory advances are:

- ERCB *Directive 73* – a new inspection directive to improve compliance with regulatory requirements, and

-ERCB *Directive 74* – a new directive aimed at significant improvement in tailings management.

OVERVIEW

Mr. Chairman and Members of the Subcommittee - good afternoon and thank you for the invitation to speak to you about Alberta's comprehensive regulatory regime with respect to oil sands development.

Alberta's oil sands are being developed under a rigorous and transparent regulatory framework that is based on the application of sound science and continuous improvement. Our integrated and comprehensive regulatory regime is founded on stringent legislation and regulations that take into account environmental, social and economic impacts as well as resource conservation and technical excellence. Or, to put it another way, the regulatory regime is designed to ensure the oil sands are developed in the public interest.

Implementing this regulatory regime is the responsibility of three regulatory agencies: the Energy Resources Conservation Board (ERCB), the Alberta Department of Environment (AENV) and the Alberta Department of Sustainable Resource Development (SRD).

The ERCB

The ERCB is arm's length, a quasi-judicial, independent decision maker established through legislation 73 years ago by the Alberta Government. The Government of Alberta created the ERCB - to ensure that the discovery, development and delivery of Alberta's energy resources takes place in a manner that is fair, responsible and in the public interest.

The ERCB is governed by a Board of 9 members. These members are appointed by the provincial Cabinet based on their technical competencies for an initial 5 year term renewable for a second term of 5 years. The ERCB directly administers 7 provincial acts which ensure that all aspects of oil and gas development are carried out in a responsible manner. An appendix to this testimony lists the statutes.

The Board is responsible for setting down detailed regulatory requirements through regulations and directives. When we speak of oil sands regulation, the *Oil Sands Conservation Act* and Regulations are critical. An appendix to this testimony lists the Regulations and Directives pertinent to oil sands development.

No oil and gas development is allowed to proceed in Alberta without a license from the ERCB.

We have a budget of about \$175 million and about 900 staff working in 13 locations across Alberta. About one-third of our staff members are licensed professionals, including engineers, geologists and environmental scientists.

About 100 of our staff located in our offices in Calgary and Fort McMurray are focused strictly on the oil sands.

THE OIL SANDS RESOURCE

With bitumen reserves of 170 billion barrels, we have a responsibility to ensure that the oil sands are developed in a sustainable way.

Of our bitumen reserves, 34 billion barrels are recoverable via surface mining methods and then processed in facilities where the bitumen is extracted. The bitumen can be either “upgraded” or mixed with other liquids such as “dilbit” or “synbit” and transported to market.

The remaining 136 billion barrels are accessible via in situ recovery. The most widely used of these is steam-assisted gravity drainage (SAGD). In situ development disturbs only about 10 to 15 per cent as much land as a similarly-sized mining operation and has no tailings ponds.

Production from in situ bitumen projects in Alberta is projected to surpass mining production by 2015.

The ERCB currently regulates 61 in situ facilities and eight surface mines. Collectively these projects are currently producing 1.6 million bbls/day or 589 million bbls/yr of raw crude bitumen.

ALBERTA'S REGULATORY FRAMEWORK

Every oil sands project is subjected to regulatory scrutiny throughout its life cycle, from authorization and operational compliance to end-of-life closure.

No oil sands project in Alberta may proceed without an approval from the ERCB.

- A project application containing all required material, including a thorough environmental impact assessment
- A complete review by expert ERCB staff, and
- Consultation with external stakeholders.

On every application we examine, we look at three criteria to determine if a project is in the public interest:

- Environmental protection
- Societal impacts
- Economic impacts

On particularly complex or contentious projects, a formal hearing by an ERCB Board Panel may be needed. These hearings allow those that may be “directly and adversely affected” by a development to present evidence related to their concerns and cross-examine the project proponent before a Board Panel. Some applications for oil sands mining developments result in a joint federal and provincial review.

A formal decision is then issued which sets additional conditions that must be met in addition to the rigorous requirements set out in our legislation, regulation and directives. In many cases, we may put additional conditions on an approval that will put limits on water use, limit a project area, or mandate different uses of technology to mitigate impacts.

As a primer on the rigor behind our regulatory process, I would direct you to the case study “Big Reserves, Big Responsibility”. It provides a close look at the ERCB process which led to the approval of Suncor’s North Steepbank Mine Extension and Voyageur Upgrader in 2006.

The project took six years from the company’s original announcement to our regulatory approval, and included a full public hearing and full opportunity for input from stakeholders.

If ERCB approval is granted, other government authorities including Alberta Environment and Alberta Sustainable Resource Development will require additional permits to ensure protection of the environment, water, fish, wildlife and forests.

But as noted in my introduction, our regulatory regime is not static; it is based on continuous learning and continuous improvement. I would like to highlight two important advances we have made in oil sands regulation over the last two years.

DIRECTIVE 73 – INSPECTIONS

In 2009, we released *Directive 73* aimed at formalizing our oil sands inspection process.

Directive 73 consolidated ERCB regulatory requirements and expectations that operators of oil sands mining and processing plant operations must follow, as well as setting out the expectations of ERCB field inspectors. This Directive has greatly improved our and industry's ability to ensure compliance with our regulatory requirements.

Last year our Fort McMurray field staff conducted about 120 detailed inspections; that's a four-fold increase since 2007. These inspections can take up to a week to complete and are often undertaken in conjunction with our regulatory partners at AENV and SRD.

We have also conducted more than 10,000 inspections of in situ facilities over the last four years.

This close scrutiny is paying off. In 2009 (we are still calculating our compliance rates for last year), industry compliance with major ERCB regulations increased to the record level of 98.6 per cent. We also posted a record-low pipeline failure rate of 1.7 per 1,000 kilometres of

pipeline. Every single compliance violation and ERCB enforcement action is listed on our website so it is accessible to the public and industry.

And when companies did not meet our stringent regulatory requirements, we took action. In 2009, the ERCB suspended 127 energy facilities, pipelines, and operations that did not meet our stringent regulatory requirements.

TAILINGS MANAGEMENT AND *DIRECTIVE 74*

The second major advance I would like to speak about involves tailings management. Every oil sands mine requires a tailings pond of one kind or another to hold water used in the extraction process. Tailings are waste from oil sands surface mining and are composed of water, sands, silt, clay and residual bitumen. While coarse solids settle rapidly, fine solids remain in suspension for years.

Over the past decade, it became apparent we needed tighter regulations to hold industry accountable for improving tailings management performance, with enforceable dates for returning ponds to a solid surface. So, in February 2009 we released *Directive 74*.

It sets out performance-based requirements for companies to reduce the amount of fine particles in tailings, and place larger particles in areas where they can be returned to a solid surface more quickly. It also requires companies to specify dates for construction, use and closure of tailings ponds that must be met or companies will face enforcement by the ERCB.

The ERCB has now approved plans for all eight mining projects that are either in operation, in construction or at the pre-construction phase. We estimate that the Directive has resulted in a commitment to some \$4 billion in new technology, infrastructure and upgrades to tailings management facilities to meet the Directive. We are now working to ensure that the companies are complying with the Directive and making upgrades on schedule.

One of the unforeseen outcomes of the Directive was the emergence of an industry consortium on research – seven oil sands companies have signed a groundbreaking agreement to share their knowledge and resources to find joint solutions to close and reclaim tailings ponds. For example - Suncor’s new technology will enable them to operate five fewer tailings ponds and use less space to store fluid tailings than the company originally applied for.

ADVANCES BY REGULATORY PARTNERS

Our regulatory partners are also committed to continuous improvement.

As part of its adaptive management approach, the Government of Alberta has implemented the Land-Use Framework to bring about a cumulative effects management system across Alberta. The Lower Athabasca Regional Plan (LARP) specifically focuses on where oil sands development occurs. To guide future decisions about oil sands development, LARP will

establish social, economic and environmental outcomes, and set limits and thresholds for regulated and non-regulated activities.

With agreed-upon triggers, all parties will work collaboratively to ensure that activities in the area do not cumulatively surpass the carrying capacity of the region. This is an innovative approach to management that will ensure Albertans' values are upheld regarding resource development and the environment.

CONCLUSION

At the end of the day, the goal of all the work of the ERCB and our regulatory partners is to ensure that our regulatory system is:

- comprehensive
- fully integrated
- responsive
- utilizing strong results based on science
- and that is continually improving.

This will enable us to regulate this vital resource in a manner that is fair, responsible and in the public interest. We are working to create a legacy for future generations and a stable and environmentally-responsible energy source. Albertans deserve no less. Our stakeholders deserve no less. Thank you.

APPENDIX 1

STATUTES ADMINISTERED BY THE ERCB

COAL CONSERVATION ACT

ENERGY RESOURCES CONSERVATION ACT

GAS RESOURCES PRESERVATION ACT

OIL AND GAS CONSERVATION ACT

OIL SANDS CONSERVATION ACT

PIPELINE ACT

TURNER VALLEY UNIT OPERATIONS ACT

APPENDIX 2

REGULATIONS AND DIRECTIVES PERTAINING TO OIL SANDS

REGULATION

Acts and Regulations pertaining to the ERCB and oil sands developments in Alberta:

Energy Resources Conservation Act

Oil and Gas Conservation Act

Oil Sands Conservation Act

Oil Sands Conservation Regulations

Oil and Gas Conservation Regulations

**Directives issued by the ERCB pertaining to the development and/or operations of
an oil sands operation:**

Directive 019 Compliance Assurance (Revised edition: September 1, 2010: Effective
November 1, 2010)

Directive 020 Well Abandonment (Latest release: July 1, 2010)

Directive 023 Guidelines Respecting an Application for a Commercial Crude Bitumen Recovery and Upgrading Project (Latest release: September 1991)

Directive 038 Noise Control (Latest release: February 16, 2007)

Directive 042 Measurement, Accounting, and Reporting Plan (MARP) Requirement for Thermal Bitumen Schemes (Latest release: September 6, 2006)

Directive 050 Drilling Waste Management (Latest release: October 1996; Invitation for Comment: September 10, 2007)

Directive 051 Injection and Disposal Wells - Well Classifications, Completions, Logging, and Testing Requirements (Latest release: March 1994)

Directive 054 Performance Presentations, Auditing, and Surveillance of In Situ Oil Sands Schemes (Released: October 15, 2007)

Directive 055 Storage Requirements for the Upstream Petroleum Industry (Latest release: December 2001)

Directive 056 Energy Development Applications and Schedules (Revised edition June 16, 2008, republished November 24, 2009 including Directive 056 errata dated November 24, 2009)

Directive 058 Oilfield Waste Management Requirements for the Upstream Petroleum Industry (Latest release: November 1996 addendum added December 23, 2008)

Directive 059 Well Drilling and Completion Data Filing Requirements (Latest release: July 24, 2007)

Directive 060 Upstream Petroleum Industry Flaring, Incinerating, and Venting (Latest release: November 16, 2006)

Directive 065 Resources Applications for Oil and Gas Reservoirs (Revised edition: August 9, 2010)

Directive 066 Requirements and Procedures for Pipelines (Latest release: December 2005)

Directive 073 Requirements for Inspection and Compliance of Oil Sands Mining and Processing Plant Operations in the Oil Sands Mining Area (Released: December 17, 2008)

Directive 074 Tailings Performance Criteria and Requirements for Oil Sands Mining Schemes (Released: February 3, 2009)

Directive 078 Regulatory Application Process for Modifications to Commercial In Situ Oil Sands Projects (Released: December 3, 2010)

Information Letters (IL's) issued by the ERCB pertaining to the development and/or operations of an oil sands operation:

IL 81-30: Experimental Schemes Involving a Large Array of Wells and Close Well Spacing

IL 82-11: Preservation of Archaeological, Palaeontological, and Historical Resources: Policy Update

IL 84-06: Mined Oil Sands Bitumen Processing Technology

IL 84-07: Declaration of Oil Sands Areas to Facilitate Orderly Leasing and Stable Regulation

IL 84-11: Approval, Monitoring, and Control of Sulphur Storage Sites

IL 85-12: Oil Sands Primary Production: Well Spacing Primary Recovery Scheme Approvals

IL 89-05: Water Recycle Guidelines and Water Use Information Reporting for In Situ Oil Sands Facilities in Alberta

IL 90-21: Oil and Gas Development - Rumsey Block

IL 92-11: Experimental Schemes - Release of Information

IL 93-04: Policy for the Logging of Horizontal Wells

IL 93-09: Oil and Gas Developments Eastern Slopes (Southern Portion)

IL 94-19: Dam Safety Accord

IL 94-22: Operating Guidelines for Industrial Activity in Caribou Range - NW Alberta

IL 96-07: EUB AEP Memorandum of Understanding on the Regulation of Oil and
Developments

IL 97-02: Well Spacing Lease Boundary Setbacks - Oil Sands Area Development

IL 98-01: Memorandum of Understanding Between AEP and the EUB Regarding
Coordination of Release Notification Requirements and Subsequent Regulatory
Response

IL 2002-01: Principles for Minimizing Surface Disturbance in Native Prairie & Parkland
Areas

IL 2001-03: Management of Drilling Wastes Associated with Advanced Gel Chemical
Systems