

# Energy

## SUMMARY

### DEPARTMENT

There is one new recommendation for the Department of Energy from the current audit. The department should improve its controls over access to key business systems—see below.

### ALBERTA ENERGY REGULATOR

There are no new recommendations to the Alberta Energy Regulator in this report.

## FINDINGS AND RECOMMENDATIONS

### DEPARTMENT

#### Matters from the current audits

#### User access controls

### BACKGROUND

The Department of Energy administers the collection of revenue from non-renewable resources. Employees in the department use various information systems to capture and assess royalty and revenue submissions, and to manage objections, appeals, and royalty collections. Management assigns role-based access to these information systems: an employee's role in the business area determines which systems he or she is assigned to and what level of access is granted.

Documenting each role within each business system, understanding what the role can and cannot do and determining what two roles are in conflict if given to an employee are vital in creating adequate segregation of duties. An effective and efficient system of internal controls includes adequate segregation of duties to minimize the potential for an individual to commit an error or fraud. Segregation of duties is a key control to ensure that errors or irregularities are prevented or detected promptly in the normal course of business.

#### **RECOMMENDATION 16: IMPROVE CONTROLS OVER ACCESS TO KEY BUSINESS SYSTEMS**

We recommend that the Department of Energy document conflicting roles within its key business systems and ensure appropriate controls are in place where conflicting roles are identified.

#### **CRITERIA: THE STANDARDS FOR OUR AUDIT**

The department should have effective processes to:

- identify and document what roles are in conflict in its key business systems
- provide access to employees according to their roles and responsibilities and regularly monitor conflicting roles
- implement mitigating controls to reduce the risk from conflicting roles to an acceptable level

## OUR AUDIT FINDINGS

### KEY FINDINGS

- The department has not documented the conflicting roles that are present in its key business systems.
- The department has not documented its assessment of whether there are appropriate controls in place to reduce the risk from conflicting roles to an acceptable level.

The Department of Energy's business systems have been built to use role-based access. Management assigns roles to employees according to their job requirements. During our assessment of user access controls in key business systems, the department could not demonstrate that there was adequate information available to assess whether the access assigned to employees was appropriate and whether it ensured proper segregation of duties. The department did not document what roles within its key business systems are in conflict. Therefore, the department cannot effectively demonstrate that it has reduced the risks from conflicting roles to an acceptable level.

During our testing we noted that there are instances where the roles given to certain employees allow the employees to update the financial information in key business systems without anyone else being required to authorize the changes. However, we did not identify any instances where the conflicting roles were misused by employees. Management has indicated that the department has detective compensating controls in place; however, these controls are not consistently documented.

### IMPLICATIONS AND RISKS IF RECOMMENDATION NOT IMPLEMENTED

If the department does not identify the conflicting roles in its key business systems and ensure that there are controls in place to reduce the risk from conflicting roles to an acceptable level, users of business systems could manipulate data and impair its integrity, either by intent or error. Impairing data in this way can have a material impact on the department.

## OUTSTANDING RECOMMENDATIONS

### DEPARTMENT

The following recommendations are outstanding and not yet ready for follow-up audits:

#### Evaluate and report on royalty reduction program objectives—February 2016, no. 1, p. 18

We recommend that the Department of Energy annually evaluate and report whether the department's royalty reduction programs achieve their objectives.

#### Improve controls over access to key business systems—October 2016, no. 16, p. 99

We recommend that the Department of Energy document conflicting roles within its key business systems and ensure appropriate controls are in place where conflicting roles are identified.

### DEPARTMENT AND ALBERTA ENERGY REGULATOR

The following recommendation is outstanding is not yet ready for a follow-up audit:

#### Further assess provincially regulated industrial control systems—February 2016, no. 2, p. 29

We recommend that the Department of Energy and Alberta Energy Regulator work together to determine whether a further assessment of threats, risks and impacts to industrial control systems used in provincially regulated oil and gas infrastructure would benefit Alberta.

**ALBERTA ENERGY REGULATOR**

The following recommendations are outstanding and not yet ready for follow-up audits:

**Systems to regulate pipeline safety and reliability in Alberta: Use risk management activities to make informed decisions—March 2015, no. 4, p. 46**

We recommend that the Alberta Energy Regulator use its risk management activities to make informed decisions on allocating resources and determine the nature and extent of activities to oversee pipelines.

**Systems to regulate pipeline safety and reliability in Alberta: Formalize training program for core pipeline staff—March 2015, no. 5, p. 46**

We recommend that the Alberta Energy Regulator complete a skills gap analysis and formalize a training program for its core pipeline staff.

**Systems to regulate pipeline safety and reliability in Alberta: Identify performance measures and targets—March 2015, no. 6, p. 51**

We recommend that the Alberta Energy Regulator identify suitable performance measures and targets for pipeline operations, assess the results obtained against those measures and targets, and use what it learns to continue improving pipeline performance.

**Systems to regulate pipeline safety and reliability in Alberta: Implement risk-based compliance process—March 2015, no. 9, p. 59**

We recommend that the Alberta Energy Regulator implement a cost effective risk-based compliance process to evaluate the adequacy and effectiveness of pipeline operators' integrity management programs, and safety and loss management systems.

**Systems to ensure sufficient financial security for land disturbances from mining:**

**Improve program monitoring—July 2015, no. 3, p. 31**

We recommend that the Alberta Energy Regulator, as part of its enterprise risk assessment process, develop and execute on a risk-based plan for its Mine Financial Security Program monitoring activities to ensure it is carrying out the appropriate amount of verification.

**Further assess provincially regulated industrial control systems—February 2016, no. 2, p. 29**

We recommend that the Department of Energy and Alberta Energy Regulator work together to determine whether a further assessment of threats, risks and impacts to industrial control systems used in provincially regulated oil and gas infrastructure would benefit Alberta.

Management has identified these recommendations as implemented—to be confirmed with follow-up audits:

**Systems to regulate pipeline safety and reliability in Alberta: Review pipeline incident factors—March 2015, no. 7, p. 53**

We recommend that the Alberta Energy Regulator:

- expand its analysis of pipeline incident contributing factors beyond the primary causes
- promptly share lessons learned from its investigations with industry and operators

**Systems to regulate pipeline safety and reliability in Alberta: Assess current pipeline information—March 2015, no. 8, p. 56**

We recommend that the Alberta Energy Regulator complete an assessment of its current pipeline information needs to support effective decision making, and determine the type and extent of data it should collect from pipeline operators, through a proactive, risk-based submission process.