Government
of
Saskatchewan

Guideline: Initiating and Operating the Enhanced Production Audit Program (EPAP)

PNG028

Issue Date: April 1, 2016

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Related Legislation:

Act: *The Oil and Gas Conservation Act*

Regulation: *The Oil and Gas Conservation Regulations, 2012*

Directive: *PNG076 Enhanced Production Audit Program (EPAP)*

Directive: *PNG017 Measurement Requirements for Oil and Gas Operations*

Directive: *R01 Reporting Requirements for Oil and Gas Operations*

NOTE: *Guideline PNG028* does not have regulatory authority in Saskatchewan

Record of Change

Revision	Date	Description
1.0	06 January 2016	Ready for posting on ECON website for public comment

Table of Contents

1 Executive Summary

The Regulator has created the Enhanced Production Audit Program (EPAP) to:

1. Provide a reasonable level of assurance that the reported volumetric data is accurate and complete in accordance with the Regulator's requirements.

2. Ensure continuous improvement in the level of compliance with the Regulator's measurement and reporting requirements.

Guideline PNG028: Initiating and Operating the Enhanced Production Audit Program (EPAP) is designed to provide guidance to operators in initiating and operating EPAP within their organization, including:

1. Designing, operating and evaluating controls.

2. Entering and submitting the annual EPAP Declaration on Petrinex.

3. Remediating deficient controls arising from the evaluations of controls[1].

4. Investigating and remediating, where possible, items on the monthly Compliance Assessment Indicator (CAI) Report.

5. Responding to Regulator-initiated workflows on Petrinex.

For an overview of how to maintain compliance generally, see *Appendix 8 - Maintaining Compliance*.

Guideline PNG028: Initiating and Operating the Enhanced Production Audit Program (EPAP) contains:

1. No regulatory requirements.

2. Practical guidance for initiating and operating EPAP.

3. Examples of acceptable practice.

Larger operators may find the more detailed content of the AER *EPAP Operator's Handbook* helpful to ensure that the design of their EPAP operation:

1. Recognizes the implications of their more complex operational characteristics.

2. Remains consistent with audit best practice.

3. Continues to achieve a reasonable level of assurance with respect to measurement and reporting requirements.

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[1] Controls and other terms in this document are defined in *Appendix 6 – Definitions*.

2   Introduction

2.1   Purpose

The *Guideline PNG028: Initiating and Operating the Enhanced Production Audit Program (EPAP)* provides examples of acceptable practice to operators with respect to initiating and operating EPAP. In the interests of readability, the full title has been shortened to *Guideline PNG028* in the balance of this document. The guideline contains no regulatory requirements.

Operators are encouraged to read *Directive PNG076: Enhanced Production Audit Program (EPAP)* to familiarize themselves with EPAP requirements.

Guideline PNG028 describes examples of acceptable practice that achieve EPAP compliance. Readers of *Directive PNG076* will be aware that EPAP requirements provide significant latitude for operator professional judgment. Therefore, operators may adopt other acceptable practices in the operation of EPAP provided that they achieve a reasonable level of assurance with respect to measurement and reporting requirements.

Key words and abbreviations used in this document are defined in *Appendix 6 – Definitions*.

2.2   Relationship to the AER EPAP Operator's Handbook

Guideline PNG028 enables operators to initiate and operate EPAP as quickly and cost-effectively as possible. To achieve this goal, this guideline provides examples of acceptable practice for EPAP initiation and operation.

EPAP provides operators with the latitude to apply their own professional judgment to the design of their EPAP operation. Operators that are interested in better understanding the underlying audit principles and concepts that have been incorporated in the design of EPAP are encouraged to read the Alberta Energy Regulator (AER) *EPAP Operator's Handbook* located at https://www.aer.ca/documents/enforcement/EPAP_OperatorsHandbook.pdf.

Guideline PNG028 provides cross-references to the AER *EPAP Operator's Handbook* that may be helpful to operators*.*

2.3   Influence of operator size on EPAP operation

The size of the operator influences the complexity associated with initiating and operating EPAP. At operators where senior executives have direct knowledge of day-to-day operations, the effort needed to achieve the reasonable level of assurance, required to sign the EPAP Declaration, can be significantly reduced.

The operational characteristics of various sizes of operators may be different in the following ways:

1. Complexity of business processes.
2. Formality of business processes and controls.
3. Complexity of the control environment.
4. Senior executive direct knowledge of day-to-day operations.
5. Degree to which senior executives are dependent on the work of:

a. Evaluators of controls to provide a reasonable level of assurance.

b. Others to provide a reasonable level of assurance with respect to remediation work.

c. Others to provide a reasonable level of assurance with respect to CAI work.

6. Operator awareness of:

a. Measurement and reporting requirements.

b. Audit concepts and best practices.

For an explanation of controls and related concepts, please read *Appendix 1 - Building Familiarity with Controls*.

Larger operators may find the more detailed content of the AER *EPAP Operator's Handbook* helpful to ensure that the design of their EPAP operation:

1. Recognizes the implications of their more complex operational characteristics.

2. Remains consistent with audit best practice.

3. Continues to achieve a reasonable level of assurance with respect to measurement and reporting requirements.

2.4   Compliance Assurance

The examples of acceptable practice provided by *Guideline PNG028* provide the means to reduce the likelihood of the Regulator invoking Compliance Assurance as defined in the following documents:

SK	*Directive PNG076: Appendix 3: Compliance Assurance*
AB	*Directive 019: Compliance Assurance*

2.5   Major EPAP Operation Processes

Guideline PNG028 is designed to provide guidance to operators for initiating and operating EPAP. The following ongoing EPAP operation processes are described in more detail in various subsequent sections:

1. Designing, operating and evaluating controls.

2. Entering and submitting the annual EPAP Declaration on Petrinex.

3. Remediating deficient controls arising from the evaluations of controls.

4. Investigating and remediating items on the monthly CAI Report.

5. Responding to Regulator-initiated workflows on Petrinex.

For a summary of acceptable practice for the project that will initiate EPAP within the organization, please see *Appendix 2 - Examples of Acceptable Practice for Initiating EPAP*.

2.6 Revising and Enhancing *Guideline PNG028*

Your feedback on *Guideline PNG028* is welcome.

Please send your suggestions for clarification or enhancement to PNG.Support@gov.sk.ca.

3 Design Choices for Operating EPAP

3.1 Introduction

This section contains acceptable design choices for operating EPAP. EPAP requirements specifically allow for operator professional judgment on what constitutes:

1. A reasonable approach to addressing EPAP requirements.

2. A reasonable level of assurance with respect to the state of compliance.

Professional judgment requires operators to make various design choices as part of initiating EPAP. Typical design choices are described in this section.

For a summary of acceptable practice for the project that will initiate EPAP within the organization, please see *Appendix 2 - Examples of Acceptable Practice for Initiating EPAP*.

Operators may choose to review Section 3 of the AER *EPAP Operator's Handbook* for an overview of how to initiate EPAP in their operation.

3.2 Design Choices for Measurement and Reporting Controls

EPAP requires operators to design, operate and evaluate a set of controls[2] that mitigate the risk of noncompliance with measurement and reporting requirements. Typical choices for the design of controls include:

1. **Determining the list of controls that will be designed and implemented**. Operators may choose to base the list of their controls on the Measurement and Reporting Noncompliance events (NCE's) that can be downloaded at the Ministry of the Economy EPAP website located at economy.gov.sk.ca/EPAP.

2. **Which controls will be designated facility-level and which will be designated company-level controls**. This designation is required for reporting the conclusions of the evaluation of controls for the EPAP Declaration. Operators may choose to design facility-level controls or company-level controls.

3. **How the controls and the related business processes will be documented**. Operators may choose how to document controls and the related business processes. Documentation examples are found in AER *EPAP Operator's Handbook Appendix III - Process documentation examples* and on the Canadian Association of Petroleum Production Accounting (CAPPA) website for CAPPA members.

4. **Whether or not the design of controls will be influenced by the facility subtype or the geographic area** where it will be performed. Operators may choose to avoid variation in the design of controls because this:

   a. Greatly increases the documentation development and maintenance effort.

   b. Creates the risk of uneven control performance.

   c. Increases training effort.

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[2] The set of controls is the most important feature of the control environment that is further defined in *Appendix 6 - Definitions*.

3.3 Design Choices for Procedure to Evaluate Controls

EPAP requires operators to develop a procedure to evaluate their controls. Typical choices for the design of a procedure include:

1. **Conducting evaluation of controls or another type of audit** as listed in AER *EPAP Operator's Handbook* Section *9.3 Using the work of others.* Operators generally choose evaluation of controls.

2. **Controls groups**. Operators may choose to group their controls by EPAP Reporting Theme[3] to simplify reporting of evaluation of controls conclusions using the EPAP functionality in Petrinex.

3. **The number of the controls in a EPAP Reporting Theme that must be considered effective** for the EPAP Reporting Theme to be concluded as acceptable. Operators should be confident that sufficient controls in an EPAP Reporting Theme have been concluded as effective before concluding the EPAP Reporting Theme as acceptable.

Operators are encouraged to consider the discussion in *Appendix 3 - Evaluation of Controls Procedure*.

3.4 Design Choices for Evaluation of Controls

EPAP requires operators to provide guidance to its evaluators with respect to how to conduct the evaluation of controls. Typical choices for the evaluation of controls design include:

1. **Judgment vs. random sampling[4] of facilities**. Operators may choose judgment sampling to prioritize larger or more important facilities.

2. **Scoping the evaluation of controls** for all the controls or a subset based on a continuous improvement topic for a year such as proration factors or trucking. Operators generally choose all controls because it may be more cost-effective.

3. **How much evidence of the existence of business process and controls design documentation is required** to conclude a control is designed effectively. Operators may choose to conclude that controls can be effective with modest business processes and controls documentation.

4. **How much evidence is required to conclude that the performance of a control is effective**. Operators may choose to ask evaluators to examine a sample of the documented control evidence to confirm the opinion of the control performer. Table 1 in the AER *EPAP Operator's Handbook* provides guidance about sample sizes for the number of control instances to evaluate.

5. **How much independence from the operator's processes must an evaluator demonstrate** to conduct an objective evaluation of controls. Operators may choose an evaluator who is not associated with the facilities being evaluated.

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[3] The list of EPAP Reporting Themes is shown in *Appendix 7 - EPAP Reporting Themes*.

[4] Operators may choose to review *Section 9.5 Selection of facilities for evaluation* and *Section 9.9 Application of sampling* of the AER *EPAP Operator's Handbook* for additional guidance on facility sampling choices.

6. **How much evidence that the evaluation of controls was conducted**. Operators may choose to create minutes of the event.

3.5 Design Choices for Remediation Effort

EPAP requires operators to remediate deficient controls within a reasonable amount of time. Operators determine how much remediation effort to plan for the current year so that operators can demonstrate continuous improvement.

3.6 Design Choices for CAI Investigation and Remediation Effort

Operators are encouraged to investigate and remediate CAI items. Operators determine how much CAI investigation and remediation effort to plan for the current year so that operators can demonstrate continuous improvement.

3.7 Design Choices for Regulator-initiated Workflows

EPAP requires operators to respond to Regulator-initiated workflows. Operators determine how much effort to plan for the current year to respond, by the specified due date, to Regulator-initiated workflows to improve compliance and reduce Regulator scrutiny.

3.8 Design Choices for Roles and Responsibilities for EPAP Operation

EPAP is operated most effectively when various functional areas within an operator's organization collaborate. Operators may choose how to assign roles and responsibilities to various functional areas.

A table of example roles and responsibilities for EPAP operation is contained in *Appendix 4 – Roles & Responsibilities for EPAP Operation*.

4 Annual EPAP Declaration Process

This section of *Guideline PNG028* provides examples of acceptable practice to operators for the annual EPAP Declaration process.

The major tasks in the annual process are shown at right.

4.1 Introduction

As stated in *Directive PNG076*, every year, operators must conduct reasonable and adequate evaluations of controls to ensure compliance with the Regulator's measurement and reporting requirements.

EPAP requires the operator's active senior executives that are selected in Petrinex to sign and submit an annual EPAP Declaration to the Regulator attesting to the state of their controls designed to ensure compliance with the Regulator's measurement and reporting requirements. The EPAP Declaration includes reporting on the existence of controls and the results of the evaluation of controls.

Operators may choose to review sections 9 and 10 of the AER *EPAP Operator's Handbook* for additional guidance on evaluating controls.

The balance of this section describes examples of acceptable practice that are associated with the annual EPAP Declaration.

4.2 Confirm EPAP Design

Operators are encouraged to confirm that the previous design choices as described in Section 3 are still valid for the upcoming EPAP declaration year.

4.3 Create List of Possible Facilities for Evaluation

EPAP requires operators to evaluate controls at a sample of their facilities to provide a reasonable level of assurance that controls are in place and are operating to mitigate the risk of noncompliance with measurement and reporting requirements.

The major steps to build the list of possible facilities for evaluation for the current EPAP declaration year are:

1. Prepare:

   a. List of facilities evaluated in previous years to ensure evaluation is focused on facilities not evaluated recently.

EPAP Declaration Process

- Confirm EPAP Design
- Create List of Facilities for Evaluation
- Conduct Evaluations of Controls
- Consolidate Conclusions
- Complete Declaration in Petrinex
- Present Declaration to Senior Executives
- Submit Declaration in Petrinex
- Respond to Regulator Queries
- Receive Regulator Approval
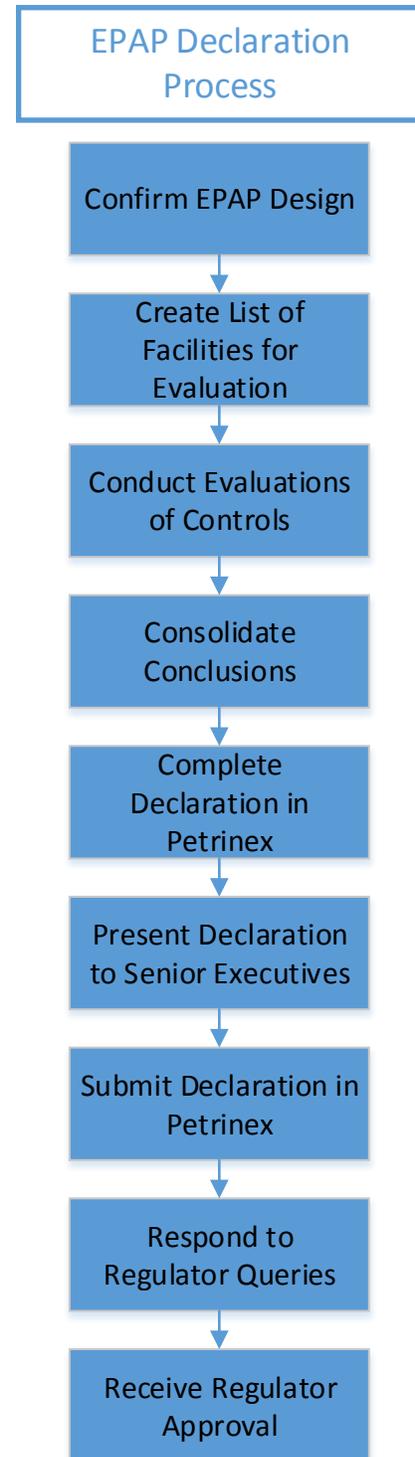
     b.   List of newly acquired facilities.

     c.   List of newly constructed facilities.

     d.   List of facilities with:

        i.   Noncompliances arising from field inspections.

        ii.   Petrinex Volumetric (VME) Reporting Errors.

        iii.   High number of production accounting amendments.

        iv.   Large numbers of CAI items.

2.   Sort facilities in order of decreasing priority to evaluate in the current year. The major sort criteria are:

     a.   Throughput volume.

     b.   Number of years since last evaluation of controls.

     c.   Facilities with:

        i.   Noncompliances arising from field inspections.

        ii.   Petrinex Volumetric (VME) Reporting Errors.

        iii.   High number of production accounting amendments.

        iv.   Large numbers of CAI items.

3.   Select an adequate and representative sample size to ensure the senior executive can confidently sign the EPAP Declaration. The Regulator expects that all operated facilities will be evaluated over a reasonable period of time.

4.4   Conduct Evaluations of Controls at Sample Facilities

Operators conduct evaluations of controls at the facilities in the sample set. The evaluator asks the control performers about their performance of each of the controls that are applicable to the facility or group of facilities being evaluated. Based on the discussion, the evaluator will conclude each control as effective, deficient or not applicable.

Some operators achieve efficiencies in their evaluations of controls by grouping facilities for evaluation where feasible.

A procedure based on acceptable practice is required to conduct the evaluations of controls. Consistently asking the control performers the same set of interview questions:

1.   Provides assurance that all facilities are being evaluated in a consistent manner.

2.   Creates comparable evaluation results from facility to facility and year to year.

3.   Produces evidence of continuous improvement or lack thereof.

4.   Builds experience with the evaluation process.

5.   Builds understanding of measurement and reporting requirements.

The individuals that are interviewed during the evaluation of controls are those associated with operating, maintaining and reporting for the facilities. Individuals performing the following roles typically participate because they are the control performers:

1.   Field operations staff such as:

   a. Field superintendent

   b. Field foreman

   c. Lead operator

   d. Operator

   e. Field administrator

   f. Electrical and Instrumentation

   g. Maintenance

 2. Engineering staff such as:

   a. Production engineer

   b. Facilities engineer

 3. Measurement coordinator

 4. Production accountant

To maintain the objectivity of the evaluation of controls, control performers cannot be evaluators.

Key considerations about participants and location to conduct the evaluations of controls include:

Approach	Benefit	Alternative
Assemble all the control performers at one place and time	Leads to better collaboration among areas of operation Tends to reduce cost	Interview the control performers individually
Visit field production facilities for in-person meeting with all of the control performers	Leads to better appreciation of field operating conditions Leads to better collaboration between field and office staff	Interview the control performers via teleconference

4.5 Consolidate Conclusions of Evaluations of Controls

Consolidate the conclusions from multiple evaluations of controls at the sample facilities to produce conclusions for every evaluated facility for every EPAP Reporting Theme for the EPAP Declaration in Petrinex.

Operators may choose to review Section 11 of the AER *EPAP Operator's Handbook* for additional guidance on reporting evaluation of controls results.

4.6 Complete EPAP Declaration in Petrinex

Complete the EPAP Declaration by identifying facilities evaluated and conclusions reached. Petrinex provides:

 1. Training modules that can be accessed at the Petrinex website located at http://www.petrinex.ca/17.asp.

2. Job-Aids that explain how to complete the EPAP Declaration. Contact the Petrinex Help Desk for access.

3. A list of operated facilities.

For each EPAP Reporting Theme, operators:

1. Identifies the facilities that operate facility–level controls, company–level controls or both.

2. Identifies the facilities that were evaluated.

3. Identifies the facilities that were evaluated where the controls were concluded as Effective.

4. Identifies the facilities where the EPAP Reporting Theme is Not Applicable and provides an explanation with respect to why the EPAP Reporting Theme is Not Applicable.

5. Identifies the facilities that operate with no controls and provides an explanation with respect to why controls at a facility do not exist.

6. Determines a conclusion for the EPAP Reporting Theme. The choices are:

EPAP Reporting Theme Conclusion	Selection Criteria
Acceptable	This conclusion is chosen if controls have been evaluated and a sufficient number of controls were concluded as Effective.
Deficient	This conclusion is chosen if there are no controls or if controls have been evaluated and a sufficient number of controls were concluded as Deficient.
Not Applicable	This conclusion is to be chosen in the following cases: • Operator has no facilities that apply to the EPAP Reporting Theme[5]. For example, EPAP Reporting Theme 6. Proration Testing: Gas Well applies only at facilities with facility subtypes 362, 363, 364 that may not exist within the set of facilities operated. • None of the listed facilities are applicable for the EPAP Reporting Theme. For example, EFM equipment does not exist at any facility.

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[5] In this situation, Petrinex displays no facilities on the screen for the EPAP Reporting Theme.

EPAP Reporting Theme Conclusion	Selection Criteria
Not Evaluated	This conclusion is to be chosen if controls exist at the listed facilities for the EPAP Reporting Theme but were not evaluated. While defensible, the operator should expect to receive a workflow item from the Regulator.

4.7   Present EPAP Declaration to Senior Executives

Print the EPAP Declaration and its attachment in Petrinex for presentation to the senior executives.

Describe a summary of the conclusions from the evaluations of controls.

Present the EPAP Declaration and its attachments for signature by the senior executives[6].

The evaluations of controls conclusions support some of the assertions on the EPAP Declaration.

Review all the assertions of the EPAP Declaration to ensure the senior executives are clear on what they are asserting is true.

4.8   Submit EPAP Declaration in Petrinex

Scan the signed EPAP Declaration and its attachments.

Attach the scanned, signed EPAP Declaration to the online declaration in Petrinex.

Be sure to press Submit to actually submit the EPAP Declaration in Petrinex.

4.9   Respond to Regulator Queries about EPAP Declaration

Respond to the Regulator-initiated workflow item related to EPAP Declaration contents. Petrinex provides documentation that explains the screens associated with responding to workflow items.

Minor changes to the EPAP Declaration may be documented in the Regulator-initiated workflow for the EPAP Declaration. The Regulator may not require the senior executives to resign a revised EPAP Declaration.

4.10 Receive Regulator Approval of EPAP Declaration

Once the Regulator is satisfied with the contents of the EPAP Declaration and operator responses to the workflows that may arise from the EPAP Declaration, the Regulator approves the EPAP Declaration.

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[6] Petrinex uses the term Declaration Signatories for senior executives.

5 Ongoing Remediation Process Arising from Evaluations of Controls

This section of *Guideline PNG028* provides examples of acceptable practice to operators for the remediation of deficient controls.

The major tasks in the ongoing process are shown at right.

5.1 Introduction

As stated in *Directive PNG076*, operators must prepare a reasonable remediation plan and implement the planned remediation within a reasonable time period for each control deficiency.

Operators may choose to review Section 16 of the AER *EPAP Operator's Handbook* for additional guidance on continuous improvement.

The balance of this section describes examples of acceptable practice that are associated with remediation projects.

Remediation Process

Scope/Plan Remediation Projects

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Execute Remediation Projects

↓

Present Remediation Results

↓

Respond to Regulator Queries
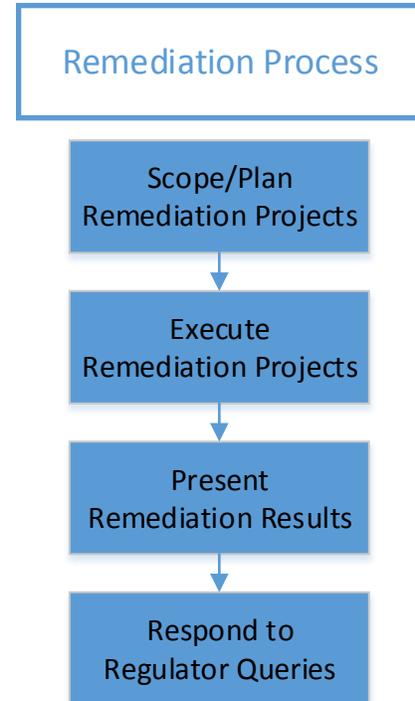
5.2 Scope/Plan Remediation Projects

The major steps to build the remediation plan for the current EPAP Declaration year are:

1. Prepare:

    a. Cumulative list of remediation work arising from controls concluded as deficient.

    b. List of remediation work completed in previous years.

2. Describe adequate remediation scope to ensure the senior executives can confidently sign the EPAP Declaration.

3. List remediation work recommended for the current EPAP declaration year. This scope of work needs to be sufficient to demonstrate continuous improvement.

The remediation plan should include the following information:

1. List of remediation tasks for each item of recommended remediation work.

2. Individual assigned to each remediation task.

3. Estimated effort associated with each remediation task.

4. Estimated schedule associated with each item of recommended remediation work.

Once ready, the remediation plan for the current EPAP declaration year is presented to the senior executives for approval with respect to priorities, scope and required resources as asserted in the EPAP Declaration.

5.3   Execute Remediation Projects

Once approved, the remediation plan for the current EPAP declaration year is executed.

Regular progress reports are sent to managers or senior executives.

5.4   Present Remediation Results to Senior Executives

Remediation results are included among the documents presented to the senior executives with the EPAP Declaration and its attachments.

Remediation results support the assertions on the EPAP Declaration.

5.5   Respond to Regulator Queries about Remediation

Typically the Regulator will initiate a workflow item inquiring about operator remediation progress when the Regulator comes to suspect that remediation progress is insufficient. The Regulator may reach this conclusion based on a number of circumstances including, but not limited to, the following:

1. An EPAP Reporting Theme is concluded as Deficient multiple years in a row suggesting little or no remediation progress.

2. The number of CAI items on the CAI Report is increasing suggesting little or no CAI item investigation and remediation effort.

3. A Regulator Field Inspection report shows a noncompliance for an EPAP Reporting Theme that has been concluded as Acceptable suggesting a possible discrepancy between the reality of field operations and the evaluation of controls process.

Operators typically respond to Regulator-initiated workflow item related to remediation progress with a summary progress report. Petrinex provides documentation that explains the screens associated with responding to workflow items.

6 Monthly CAI Report Process

This section of *Guideline PNG028* provides examples of acceptable practice to operators for investigating and remediating the items on the monthly EPAP CAI Report.

The major tasks in the monthly process are shown at right.

6.1 Introduction

The EPAP functionality on Petrinex generates a CAI Report monthly for all operators. In providing this report to operators, the Regulator's goal is to raise the level of compliance with measurement and reporting requirements through continuous improvement.

Items on the CAI Report are indicators of possible measurement and reporting noncompliance and may or may not represent actual noncompliance situations.

Operators are encouraged to investigate and remediate CAI items regularly.

A decrease in the number of items on the CAI Report, over time, is generally an indicator of successful continuous improvement.

The Regulator may create a workflow item on Petrinex to direct an operator to investigate a particular CAI item.

The list of Compliance Assessment Indicators (CAI's) that the Regulator uses to generate the monthly CAI Report can be reviewed at:

SK	The Ministry of the Economy EPAP website located at economy.gov.sk.ca/EPAP.
AB	The AER website located at aer.ca/documents/projects/epap/EPAP_ComplianceAssessmentIndicators.xlsx

The balance of this section describes examples of acceptable practice that are associated with the CAI Report.

6.2 Download CAI Report from Petrinex

Petrinex generates the CAI Report shortly after the Volumetric Deadline as shown on the Petrinex reporting calendar that can be downloaded at the Petrinex website located at http://www.petrinex.ca/49.asp.

CAI Report Process

- Download CAI Report
- Filter CAI Items
- Prioritize CAI Items
- Investigate CAI Items
- Remediate CAI Items
- Present CAI Progress Report
- Respond to Regulator-initiated CAI Workflow Items
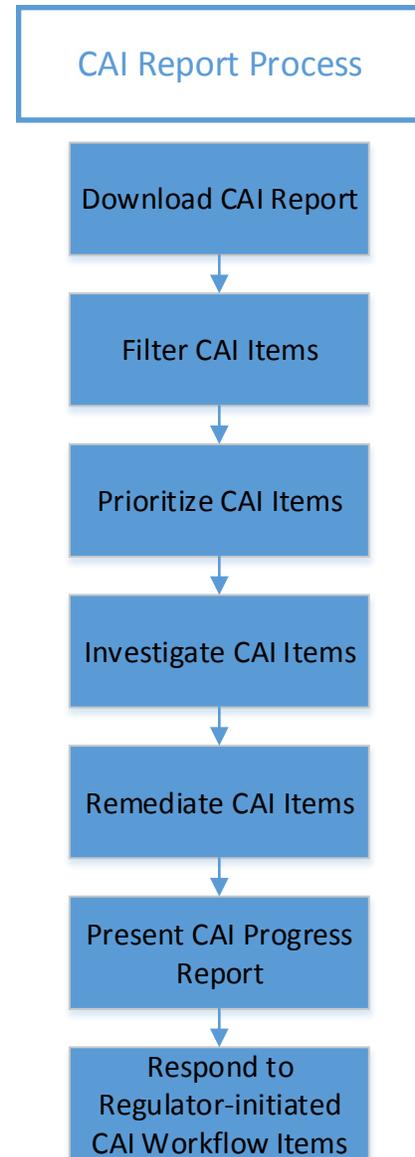
The CAI Report should be downloaded to a pre-determined storage folder where all the CAI Reports are stored.

6.3 Filter CAI Items

Typically, operators will filter CAI Items to remove those CAI Items from the CAI Report that:

1. Help operators focus on the important CAI items for investigation.

2. Minimize wasted effort investigating false positive CAI items.

3. Have an Industry Reviewed Date indicating the operator previously investigated the CAI item.

4. Have a Regulator Acceptable Date indicating the Regulator previously approved the CAI item.

Some CAI's will sometimes mischaracterize legitimate measurement and reporting values as compliance concerns. In this case, the CAI item investigation will confirm that no remediation will be required.

6.4 Prioritize CAI Items

These are the major inputs to prioritizing CAI items for investigation:

1. CAI Category – Error, Anomaly, Conditional.

2. Higher weight – 1, 2, 3, 4. Four is the highest severity and one is the lowest.

3. Ease of remediation.

4. Size of possible volumetric adjustment.

5. Recurring at the same facility.

6. Occurring at core facilities.

6.5 Investigate CAI Items

In most cases the CAI Report item investigation process is most effective and efficient when it takes the reverse path from the normal business process and data flow.

First, investigate to make sure that the reporting of volumetrics and infrastructure data that is reported to Petrinex is defensible. As part of the reporting investigation, make sure that the data moving through the PA system is maintaining its integrity. Often investigating the PA system includes looking at the spreadsheets that PA's use to manipulate the Field Data Capture (FDC) data before loading it into the PA system.

Second, investigate to make sure that the recording of volumes and infrastructure data in the FDC system is accurate and complete. Disconnects and dropped data often occur in the hand-off from field operations to PA.
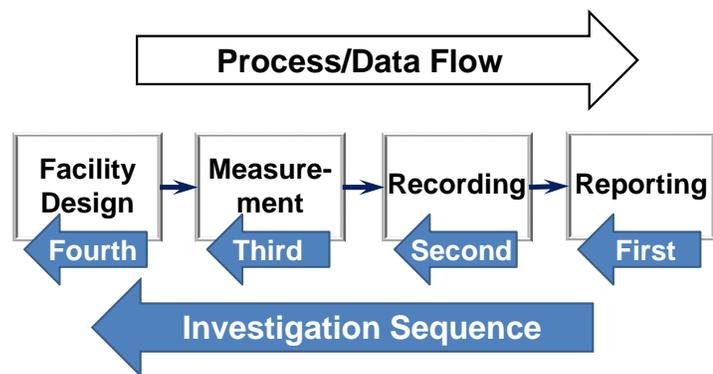
Third, investigate to make sure that the actual measurement of volumes and the related capture of infrastructure data, either manually or in the SCADA system, is accurate and complete. Mismatches between measurement points and data recording points do occur.

Fourth, on rare occasions if the problem remains unidentified, investigate to make sure that the facility design is compliant and not preventing accurate and complete measurement of volumetrics and the related capture of infrastructure data.

It's important to remember that the CAI Report includes some CAI items that are not compliance concerns. Once investigated, these CAI items should be flagged as remediated for filtering in subsequent months, as described in Section 6.3, to avoid unnecessary effort.

6.6 Remediate CAI Items

If the CAI item is a compliance concern, remediation typically consists of making one or more of the following improvements:

1. Improving the documentation of control performance.

2. Improving the design of the control with its associated documentation.

3. Improving the design of the underlying business process.

4. Providing education to the staff about control performance and recommended practice conduct of the underlying business process.

6.7 Present CAI Progress Report

Typically operators present a CAI Report progress report to managers or senior executives periodically.

See *Appendix 5 - CAI Progress Report Example* for an example report.

6.8 Respond to Regulator-initiated CAI Workflow Items

Typically the Regulator will initiate a CAI workflow item inquiring about operator progress when the Regulator comes to suspect that the pace of investigation and remediation progress is insufficient. The Regulator will most likely reach this conclusion if:

1. A particular CAI item has been appearing on the CAI Report for an extended period of time.

2. The number of CAI items on the CAI Report is increasing suggesting little or no CAI item investigation and remediation effort.

3. A particular group of CAI's is appearing more frequently on the CAI Report for a significant number of operators and the Regulator wants operators to investigate and remediate these CAI items.

The operator must respond to the Regulator-initiated CAI workflow item with respect to CAI investigation and remediation progress.

Petrinex provides documentation that explains the screens associated with responding to CAI workflow items.

7   Ongoing Regulator-initiated Workflow Process

This section of *Guideline PNG028* provides examples of acceptable practice to operators for responding to Regulator-initiated Workflow Items.

The major tasks in the ongoing process are shown at right.

7.1   Introduction

If the Regulator identifies situations that indicate the possibility of noncompliance with one or more measurement and reporting requirements, the Regulator may create a workflow item in Petrinex to direct operators to investigate.

See Section 6 Investigation of other situations of *Directive PNG076*.

7.2   Receive Regulator-initiated Workflow Item

On receipt of a Regulator-initiated workflow Item, operators must assign someone to investigate the concern expressed by the Regulator.

7.3   Investigate Regulator-initiated Workflow Item

Typically the investigation will focus on the facility and the concern expressed by the Regulator. The investigation will always produce one of the following outcomes:

1. The noncompliance exists or is highly likely. Operators must prepare a remediation plan.

2. The noncompliance does not exist or is highly unlikely. Operators must prepare a summary of the investigation and the conclusion.

The Regulator may also initiate other workflow types such as:

1. Compliance Assessment Indicator (CAI) – Related to a CAI item on the CAI Report received by an operator.

2. Business Associate (BA) – EPAP Declaration related or general inquiry.

7.4   Respond to Regulator-initiated Workflow Item

Operators respond to the Regulator-initiated workflow item with the results of the investigation as described in the previous section.

Petrinex provides documentation that explains the screens associated with responding to workflow items.

Regulator-initiated Workflow Process

- Receive Regulator-initiated Workflow Item
- Investigate Regulator-initiated Workflow Item
- Respond to Regulator-initiated Workflow Item
- Remediate Noncompliance
- Receive Regulator Approval of Workflow Item
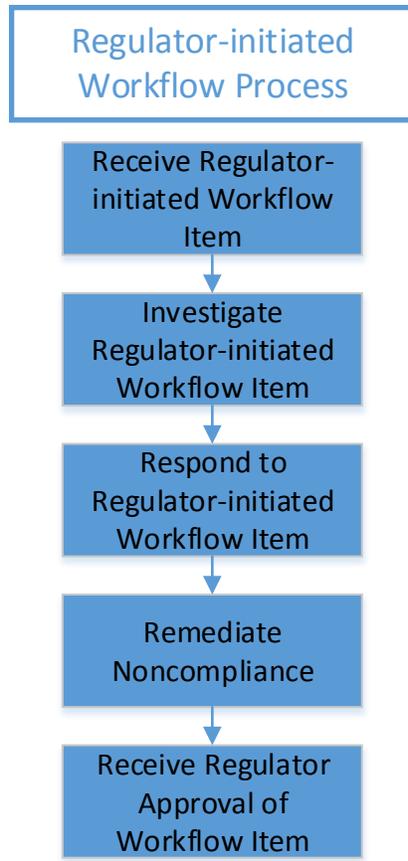
7.5 Remediate Noncompliance

If the results of the investigation indicate a noncompliance, operators performs the remediation work described in the remediation plan.

Operators provide progress reports as requested by the Regulator.

7.6 Receive Regulator Approval of Workflow Item

Once the Regulator is satisfied with the operator investigation conclusion, the remediation plan or the remediation work, the Regulator will close the workflow item.

Appendix 1 - Building Familiarity with Controls

This appendix describes the concept of controls in the context of evaluations of controls and business processes.

Description of a Control in its Context Diagram

Business Process: A collection of related, structured tasks that achieve a specific business goal.

Control: A process designed to provide a reasonable level of assurance that the underlying business process ensures compliance with the Regulator's measurement and reporting requirements.

The conclusion of performing a control will be to either accept or reject the product of the business process.

Evaluation of Control: A process by which operators evaluate the effectiveness of the design and operation of a control in addressing the risk of noncompliance. The evaluation of controls may include assessing the underlying business process.

The conclusion of the evaluation of a control at a specific facility will be one of the following:

1. Effective – the control is operating effectively.

2. Not Effective – the control is not operating as designed or the control does not exist.

3. N/A – the control does not apply at the facility being evaluated.
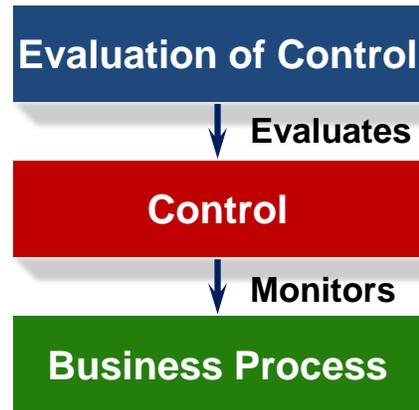
Example of a Control in its Context Diagram

Perform Well Tests is a business process that operators perform. This process is typically performed by a member of the field operations staff. How to conduct well tests using best practices is learned through experience and is described in *Directive PNG017: Measurement Requirements for Oil and Gas Operations*. The product or evidence that the well test was performed consists of:

1. A completed gas chart and/or meter reading.

2. A manually-completed well test form and/or well test data entered into a field data capture system.

3. An entry in the well test log.

Review Well Test Log is a control that operators should perform to ensure that well tests are:
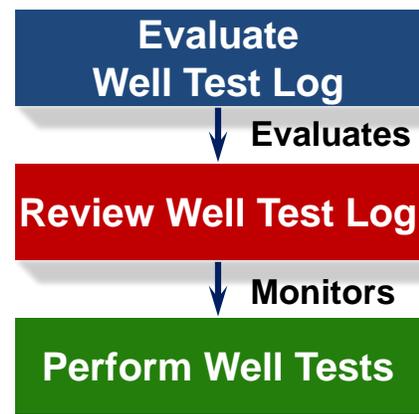
1. Being competently performed.

2. Being accurately recorded.

3. Creating accurate and complete data.

4. Ensuring compliance with the Regulator's measurement and reporting requirements.

This control is typically performed by a lead operator or a field foreman. How to conduct the Review Well Test Log is learned through experience or is described in the control documentation. The evidence that the control was performed consists of the name of the control performer and the date on which the control was performed. This data is recorded on the log or in a system. In the event that the control performer rejected the well test, an explanation should be noted and evidence of a well re-test should be evident.

Rejection of a well test is excellent evidence that the control is operating as designed. Evidence of a well re-test is excellent evidence that the performers of the business process are responsive to the control conclusion. Rejection of the product of a business process such as a well test is not control failure. Control failure occurs when there is no evidence of control performance or there is evidence of deficient products of a business process being used in subsequent business processes.

Evaluate Well Test Log is an evaluation of the control that operators should perform to assess that the well test control was performed. An evaluator that is independent from the operator's processes typically performs this evaluation of the control. The evidence that the evaluation of the well test control was performed consists of:

1. The name of the evaluator and the date on which the evaluation of the control was performed.

2. The conclusion that the evaluator reached.

3. Any observations that the evaluator noted.

Operators may choose to review sections 5, 6, 7, 8 and 12 of the AER *EPAP Operator's Handbook* for additional guidance on how to design, document and operate controls.

Strengthening Controls

An important goal of controls is to mitigate the risk of noncompliance. A good way to ensure that operators perform sufficient controls in the control environment is to confirm that at least one control is active for each measurement and reporting requirement topic that is applicable to the operator's operation.

Experience suggests that operators have designed and are operating more controls than they realize. In this situation, strengthening controls is easily achieved by:

1. Making the controls more visible by explicitly labeling the work as a control.

2. Ensuring that some evidence of control performance is documented.

An example of an early warning sign of a wide variety of measurement and reporting problems is proration factors that are outside of the acceptable range. When such proration factors are carefully investigated and the root causes are remediated, operators will experience the following improvements:

1. Strengthened controls that mitigate the risk of future noncompliance.

2. Improved performance of the business processes that produce accurate and complete measurement and reporting.

3. A higher level of measurement and reporting compliance.

A good way to ensure that operators have a reasonable control environment is to compare the list of control questions in the evaluation of controls procedure to the list of controls in the control environment.

Operators may choose to review Sections 5, 6 and 7 of the AER *EPAP Operator's Handbook* for additional guidance on how to strengthen controls.

How direct knowledge of operations impacts EPAP

The operation of EPAP is simplified in cases where senior executives have direct knowledge of operations. This situation is typical at small operators. Senior executives of small operators often perform measurement and reporting business processes and controls. This direct knowledge contributes to the assurance so that senior executives can confidently sign the EPAP Declaration.

Conversely, as operators grow, senior executives increasingly rely on the work of others they supervise and to whom they have delegated authority for assurance that the risks of noncompliance are being mitigated. This reliance on others adds effort to the operation of EPAP to provide enough assurance to determine the effectiveness of the measurement and reporting business processes and controls.

The impact of this difference in direct knowledge between smaller and larger operators provides useful input to operators seeking to determine how much formality to include in the design of their business processes, controls, evaluation of controls, CAI investigation and control remediation.

See Section 2.2 for a discussion of differences between larger and smaller operators in an EPAP context.

Appendix 2 - Examples of Acceptable Practices for Initiating EPAP

This appendix describes examples of acceptable practices for a project to initiate EPAP that are:

1. Sufficiently comprehensive to demonstrate compliance.
2. Cost-effective to avoid over-investment in the initiation and operation of EPAP.
3. Compatible with acceptable practices for EPAP operation.

Assign project manager and project resources

The project to initiate EPAP:

1. Is a cross-departmental project that will require the involvement of various areas of operation. See *Appendix 4 - Roles & Responsibilities for Operating EPAP.*
2. Will require some effort, typically part-time, from various areas of operation.
3. Requires sufficient effort and coordination to merit assigning:
   a. A project manager.
   b. An appropriate senior executive that has the authority to direct resources as project sponsor.

Conduct an initial EPAP assessment

It is useful to begin by conducting an initial EPAP assessment that:

1. Describes the state of controls including the associated documentation.
2. Describes the state of awareness of measurement and reporting requirements.
3. Describes the approximate state of compliance with measurement and reporting requirements[7].
4. Defines the approach to EPAP operations including:
   a. Determining roles & responsibilities for operating EPAP as further described in Appendix 4 - Roles & Responsibilities for Operating EPAP.
   b. Determining if any portion of the EPAP operation will be outsourced.
   c. Selecting supporting software packages if deemed useful.
5. Roughly lists initiation resource requirements.
6. Estimates initiation effort and timeline.

The effort associated with initiating EPAP tends to be proportional to the number of:

1. Operated facilities.
2. Deficient controls requiring remediation.

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[7] The initial EPAP assessment will inevitably identify measurement and reporting noncompliances and shortcomings. Remediating these should not become part of the EPAP initiation project but become the scope of a measurement and reporting remediation project.

3. Lines on the CAI report.

The effort associated with initiating EPAP is not proportional to:

1. Facility throughput volumes.
2. Number of producing wells.
3. Geographic size of operating area.

Brief managers and senior executives

Brief managers and senior executives on the following topics:

1. Overview of EPAP.
2. Findings from the initial EPAP assessment.
3. Recommended characteristics of project to initiate EPAP.
4. Implications of implementing less than the recommendation.
5. Approval of recommended project to initiate EPAP.

Build awareness of operator staff

Develop and deliver a presentation that builds operator staff awareness of:

1. Measurement and reporting requirements.
2. EPAP requirements.
3. Characteristics of the project to initiate EPAP.
4. Roles of individual operator staff in the project to initiate EPAP.
5. Proposed roles of individual operator staff in the operation of EPAP.

Develop project plan

Based on approval of the project to initiate EPAP, develop a more detailed project plan. The project plan typically includes the following major deliverables:

1. Evaluation of controls procedure.
2. CAI Report investigation and remediation process.
3. Annual production volume summary for facility sampling.
4. Business process and controls documentation template.
5. Sustainment model for EPAP operation.
6. Estimate of annual EPAP operation effort – more guidance in this section.
7. Approach for managing Regulator-initiated workflows.
8. Approach for maintaining compliance.
9. Project management approach.

Execute project plan

Execute the project to initiate EPAP. Experience with such projects suggests that the following deliverables may require a multi-year effort to complete:

1. Control performance documentation.
2. Business process and controls documentation.
3. Measurement schematics.
4. Fuel, flare and vent volume measurement, recording and reporting.

Estimate of annual EPAP operation effort

The effort associated with EPAP operation tends to be proportional to the number of:

1. Operated facilities.
2. Deficient controls requiring remediation.
3. Lines on the CAI report.

The effort associated with EPAP operation is not proportional to:

1. Facility throughput volumes.
2. Number of producing wells.
3. Geographic size of operating area.

Appendix 3 - Evaluation of Controls Procedure

Operators are expected to use their professional judgment in the design of their evaluation of controls procedure to ensure that the procedure provides a reasonable level of assurance with respect to measurement and reporting compliance so that the senior executives can confidently sign the EPAP Declaration. This goal is typically achieved by evaluating:

1. A reasonable[8] sample of facilities each year.

2. A sufficient number of controls at each facility to ensure that the risk of noncompliance is mitigated.

Operators are expected to design their own evaluation of controls procedure.

See the section titled Strengthening Controls in *Appendix 1 - Building Familiarity with Controls* for details about how to ensure that the control environment contains a sufficient number of controls so that the evaluation of controls can produce a reasonable level of assurance with respect to compliance. Operators may find that the:

1. List of NCE's for measurement and reporting forms a good starting point for an initial list of controls.

2. Control documentation examples found in AER *EPAP Operator's Handbook Appendix III - Process documentation examples* and on the Canadian Association of Petroleum Production Accounting (CAPPA) website for CAPPA members provide ideas for the design of controls.

Operators may choose to review section 9 of the AER *EPAP Operator's Handbook* for additional guidance on how to develop an evaluation of controls procedure.

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[8] Reasonable means that a reasonable level of assurance with respect to the state of measurement and reporting compliance is being provided in the opinion of the operator. Reasonable level of assurance is defined in *Appendix 6 – Definitions*.

Appendix 4 - Roles & Responsibilities for Operating EPAP

This appendix describes the various roles and responsibilities associated with operating EPAP. Operators are encouraged to view the operation of EPAP as a collaborative effort that involves multiple areas of operation.

Table of Roles & Responsibilities

The table in this section contains an example set of roles & responsibilities for operating EPAP that may or may not be effective for a specific operator. The person or the area of operation with the most knowledge of measurement and reporting should coordinate the operation of EPAP.

Area of Operation Name	Annual EPAP operation plan	Annual evaluation of controls	Annual EPAP Declaration	Ongoing controls remediation	Monthly CAI investigation & remediation	Ongoing EPAP Workflow
Measurement	Coordinate	Coordinate	Prepare	Coordinate	Coordinate	Coordinate
Production Operations	Participate	Participate	N/A	Participate	Participate	Participate
Production Accounting	Participate	Participate	N/A	Participate	Participate	Participate
Engineering	Participate	Participate	N/A	Participate	Participate	Participate
Senior Executives	Approve	N/A	Approve	N/A	N/A	N/A

Related notes:

1. In this example table, Measurement is shown as coordinating EPAP operation. However, at some operators, EPAP operation is equally well coordinated by another area of operation.
2. Coordinate means to lead the EPAP operation, to follow-up on agreed actions and to lead the management presentations on the work performed.
3. Production Accounting refers to Production Accounting Team Leads and Production Accountants.
4. Production Operations includes Field Superintendents, Field Foremen, Lead Operators and Operators.
5. Measurement refers to measurement, instrumentation and SCADA.
6. Engineering refers to Production and Facilities engineering.
7. Senior Executives refers to the individuals that are Declaration Signatories and have the authority to allocate resources.

Area of Operation Names

Operators are encouraged to change the area of operation names to the names used in their organization. At mid-sized and smaller operators:

1. One person may be responsible for multiple areas of operation.

2. Some areas of operations may be outsourced.

EPAP Operation Business Processes

It's useful to view EPAP operation as consisting of these major business processes:

1. Annual EPAP operation plan

2. Annual evaluation of controls

3. Annual EPAP Declaration

4. Ongoing controls remediation

5. Monthly CAI investigation & remediation

6. Ongoing EPAP Workflow

At mid-sized and smaller operators:

1. One person may work on multiple business processes.

2. It is likely that most of the business processes are applicable.

Appendix 5 - CAI Progress Report Example

This appendix illustrates how CAI progress can be easily reported to managers or senior executives at a summary level.

Summary Report of CAI Investigation & Remediation Progress

This is an example of a simple, easy-to-understand summary CAI progress report that could be prepared by operator staff. This summary report:

1. Demonstrates that progress is being made.

2. May contributes to the confidence managers or senior executives need to sign the EPAP Declaration.

The underlying detail supports progress tracking on individual CAI items that have been assigned for CAI investigation and remediation.

CAI Report - Progress for 2014 & 2015						
Year	Petrinex Production Month	Current CAI items reported	Conditionals	Errors	Anomalies	CAI items Remediated
2014	March	34	1	2	31	2
2014	April	32	0	0	32	3
2014	May	28	0	0	28	4
2014	June	37	1	1	35	2
2014	July	31	1	1	29	5
2014	August	39	0	3	36	4
2014	September	36	1	1	34	6
2014	October	36	1	2	33	1
2014	November	52	1	2	49	0
2014	December	50	2	5	43	10
2015	January	47	0	2	45	5
2015	February	39	0	4	35	14
2015	March	34	1	1	32	15
2015	April	27	1	3	23	6
2015	May	30	0	2	28	4
2015	June	24	1	1	22	8
2015	July	32	1	2	29	10
2015	August	28	1	3	24	7

The definitions for the CAI item category values are as follows:

1. Anomalies – The reported value is outside the typically acceptable range. If the investigation confirms a problem, the operator staff must submit a correction to Petrinex to remediate the CAI item. The investigation of the CAI item may reveal that the CAI item is not a compliance concern.

2. Conditionals – The reported value is acceptable with Regulator approval. If approval has not been obtained, the operator staff must submit a request for approval. If approval has been obtained, the CAI item is not a compliance concern.

3. Errors – The reported value is an error. The operator staff must submit a correction to Petrinex to remediate the CAI item.

Operators are encouraged to exclude CAI items that are not a compliance concern from this table and the summary graph as discussed in Section 6.3 Filter CAI Items.

Summary Graph of CAI Investigation & Remediation Progress

This is an example of a simple, easy-to-understand summary CAI progress graph that could be prepared by operator staff. This summary graph:

1. Demonstrates that progress is being made.

2. May contribute to the confidence managers or senior executives need to sign the EPAP Declaration.

Include more than a year of data to provide a clear indication of progress.
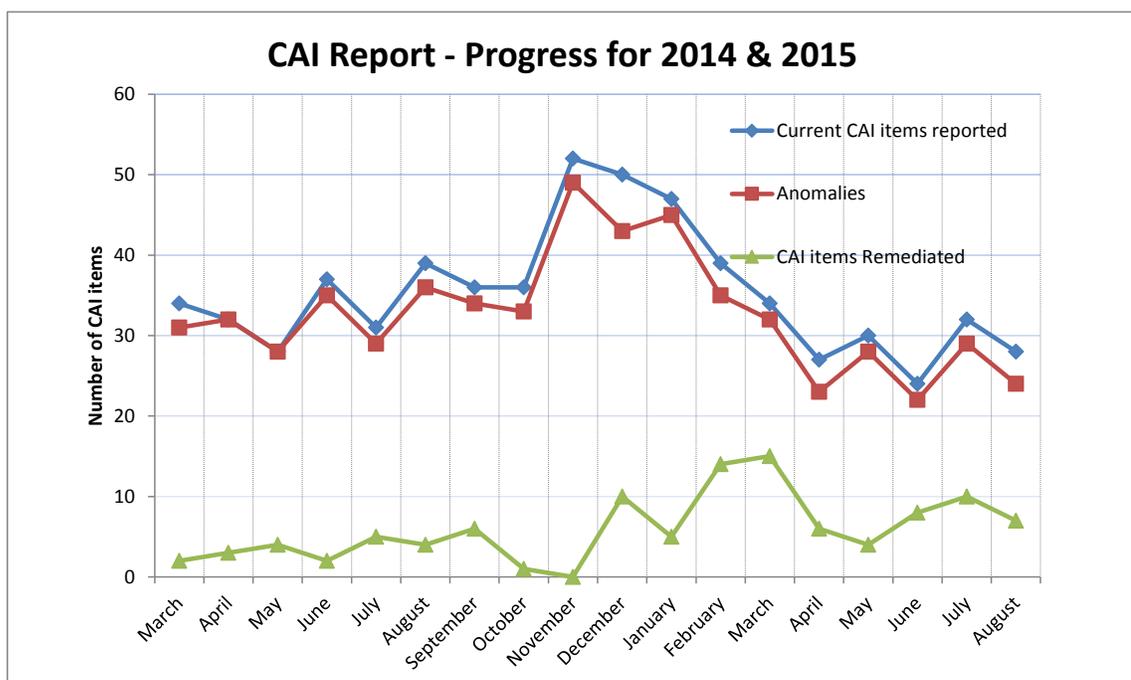
Appendix 6 - Definitions

Introduction

For the purpose of *Guideline PNG028* s, the following definitions are used. For additional definitions, please see *Directive PNG076* and the AER *EPAP Operator's Handbook*.

Definitions

[Alberta Energy Regulator](#) **(AER):** The Alberta Energy Regulator ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

Business Process: A collection of related, structured tasks that achieve a specific business goal.

Company-level controls: See Control.

Compliance Assessment Indicator (CAI): An indicator to identify situations where data submitted by an operator may be non-compliant with regulator requirements. Compliance assessment indicators are not noncompliance events.

CAI Report: A report that contains all the CAI items for a particular operator. A CAI item is a unique occurrence of a CAI for a specific operator during a specific production month at a particular facility.

The intent of producing the CAI Report is to encourage continuous improvement by operators.

Control: A process designed to provide a reasonable level of assurance that the underlying business process is operating as designed. In an EPAP context, a control ensures compliance with the Regulator's measurement and reporting requirements.

In an EPAP context, the types of controls are:

1. **Company-level controls:** Controls that apply to all facilities and are typically applied centrally.

2. **Facility-level controls:** Controls that apply to some or all facilities and are typically applied at each applicable facility.

Control Deficiency: The state that exists when controls do not provi.de a reasonable level of assurance with respect to the achievement of compliance with Regulator measurement and reporting requirements. The reason for the deficiency can exist in either the control or the underlying business process. There are two types of control deficiencies:

1. Design deficiency: a deficiency relating to the design exists when the control is missing or a control is designed such that even if the control operates as designed, reasonable level of assurance with respect to compliance with Regulator measurement and reporting requirements cannot be achieved.

2. Operation deficiency: a deficiency relating to the operation exists when a properly designed control is not operating as intended and as a result reasonable level of assurance with respect to compliance with Regulator measurement and reporting

requirements cannot be achieved. The operation deficiency can exist in the control operation or in the underlying business process.

Control Environment: The atmosphere in the organization established by the senior management in response to the needs of the organization in addressing regulatory requirements, internal risks and external risks. The tangible feature of the control environment is its controls.

Declaration Signatory: The Petrinex name for active senior executives that can sign the EPAP Declaration.

See Senior executive.

EPAP Reporting Theme: A measurement and/or reporting category that may encompass several related business processes, related measurement, and reporting requirements. All EPAP Reporting Themes are listed on Attachment A of the EPAP Declaration. For each EPAP Reporting Theme, operators are required to develop, operate, evaluate, and remediate, if required, controls that mitigate the risk of noncompliance with the associated Regulator's requirements.

Appendix 7 - EPAP Reporting Themes contains the complete list of the reporting themes.

Evaluation of Controls: A process by which operators evaluates the effectiveness of the design and operation of its controls in addressing the risk of noncompliance. The evaluation of controls may include assessing the underlying business process.

The available conclusions for the evaluation of a control are described in *Appendix 1 - Building Familiarity with Controls*.

Evaluator: The person conducting the evaluation of controls**.**

Facility-level controls: See Control.

Judgment sample: A sampling method in which members of a population, such as facilities, are selected based on the opinion of the operator. Results obtained from a judgment sample are subject to some degree of bias.

Measurement: The term "measurement" as used in Regulator directives generally means "measurement, accounting, and reporting." While measurement is the determination of a volume, accounting and reporting are integral components of measurement in that after a fluid volume is "measured," mathematical procedures (accounting) may have to be employed to arrive at the desired volume to be "reported." Notwithstanding this all-encompassing definition, for sake of emphasis this directive refers to "measurement and reporting" recognizing that separate functions take place in the field and in the office.

Noncompliance events (NCE's) for Measurement and Reporting: Measurement and reporting events that the Regulator has determined are noncompliances with respect to the Regulator's measurement and reporting requirements. The list of NCE's can be downloaded from:

SK	The Ministry of the Economy EPAP website located at economy.gov.sk.ca/EPAP.
AB	The AER website located at *www.aer.ca/compliance-and-enforcement/risk-assessed-noncompliance*

Operator:

SK	means: i. a person who, as owner, licensee, lessee, sublessee or assignee, has the right to carry on drilling, construction, operation, decommissioning or abandonment of a well or facility and the reclamation of the well or facility site; ii. a contractor who on behalf of the person mentioned in subclause i. engages in any of the activities described in that subclause; or iii. the person designated by the minister as the operator of the well or facility. Source: *The Oil and Gas Conservation Regulations, 2012*
AB	The person or organization who keeps records and submits production reports to Petrinex or the Regulator for a facility, whether or not that organization is the sole licensee or approval holder for all parts of the facility. "Operator" is synonymous with "Operator of Record" as used by Petrinex. Note that for the purposes of measurement and reporting, the emphasis is on the organization that reports to Petrinex or the Regulator, not the organization that may control or undertake the day-to-day operations and activities at all or part of a facility.

Operator judgment: EPAP provides operators with the latitude to apply their professional judgment to the design of their EPAP operation so long as operators can demonstrate that the design choices reasonably achieve EPAP goals.

Section 3 describe various design choices that require operator professional judgment.

Petrinex Volumetric (VME) Reporting Errors: Errors related to the operator's reporting of volumetric data that appear on the Noncompliance Report produced in Petrinex. Many of the errors are subject to fines. These errors are indicators of possible noncompliance with measurement and reporting requirements.

Random sample: A sampling method in which all members of a population, such as facilities, have an equal and independent chance of being selected. Results obtained from a random sample are not subject to some degree of bias.

Reasonable Level of Assurance: "Level of Assurance" is the degree of confidence one has in a statement; a "reasonable" level of assurance certainly does not mean absolute assurance, and might not even mean a "very high" level of assurance, but it is enough to make it comfortable, for all practical purposes, for senior executives to sign their EPAP Declaration. Exactly what that level is depends on many factors, including the executive, the organizational culture, and the resources required to increase that level of assurance.

Regulator:

SK	The Ministry of the Economy is the Regulator that administers *The Oil and Gas Conservation Act* that allows orderly exploration for, and development of, oil and gas in the province and optimizes recovery of these resources.

AB	The Alberta Energy Regulator, or AER, ensures the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

Remediation: A process, effected by operator management, to:

1. Correct control deficiencies identified by operators during the evaluations of controls, and

2. Correct deficiencies identified by the Regulator.

Senior executive: An active declaration signatory that holds provincial authority, within the operator's management, to direct resources to execute and measure progress of:

1. CAI Report investigation and remediation.

2. Evaluations of controls, and

3. Remediation.

This person or persons typically sign the EPAP Declaration.

Workflow: Petrinex functionality to manage the interaction and flow of information between the Regulator and an operator.

Appendix 7 - EPAP Reporting Themes

This appendix contains the list of EPAP Reporting Themes. The list is also shown in Petrinex.

The supporting document that describes the EPAP Reporting Themes in more detail that can be viewed at the Ministry of the Economy EPAP website located at economy.gov.sk.ca/EPAP.

List of EPAP Reporting Themes

The attachment to the EPAP Declaration contains the following EPAP Reporting Themes that are used to report the results of the evaluations of controls conducted during the EPAP declaration year:

1. Measurement System Design and Installation
2. Measurement Device Maintenance (Calibration, Inspection, and Proving)
3. Measurement Device Operation
4. Sampling and Analysis
5. Proration Testing: Oil / Bitumen / In Situ / Sulphur Reporting at Oil Sands Wells
6. Proration Testing: Gas Well
7. EFM Systems
8. Field Records
9. Trucked Volumes
10. Fuel/Flare/Vent
11. Schematic
12. Facility Master Data Set Up
13. Calculation Factors
14. Monthly Volumetric Activity Reporting