

2022 BC Methane Regulatory Review Recommendations



On Behalf of:

The Canadian Association of
Petroleum Producers (CAPP)

AND

The Explorers and Producers
Association of Canada (EPAC)

Upstream Oil and Gas Preliminary Recommendations

- **Item 1: Modification and streamlining of leak detection and repair (LDAR) reporting obligations**
- **Item 2: Creation of a clear, predictable, and implementable methodology to approve operator-specific LDAR programs**
- **Item 3: *[Placeholder]* As research continues in 2022, CAPP and EPAC may have additional recommendations for regulatory modification. This presentation and February 1 submissions do not represent the totality of our potential recommendations.**

Leak detection and repair reporting requirements

- **LDAR reporting requirements are the nation's most detailed and labour intensive**
- **Over 40 data points are required to be reported per survey**
- **Industry cannot see the utility in all data points and we believe there are opportunities to streamline**
- **Unnecessary data creates an increased burden on operators, contractors, and the regulator to provide QA/QC**
- **Industry supports a significant decrease in reporting while maintaining equivalency**

Current reporting obligations

- Well (WA) number
- Facility ID
- Operator
- Kermit status
- Facility name
- Facility type code
- Name of technician
- Leak survey date
- Survey method
- Unconventional flag (YES/NO)
- Survey ID – submission
- Survey ID – BIL generated
- Survey sequence (1/2/3)
- Whether survey was done internally or 3rd party
- # of surveys submitted per well/facility
- # of surveys required probation/days active
- Days between surveys
- Ambient temperature
- Wind speed
- Detection instrument make
- Detection instrument model
- Emitting device indicated (YES/NO)
- Controlled storage tanks present (YES/NO)
- Uncontrolled storage tanks present (YES/NO)
- # of days facility/well was pressurized
- Leak detected (YES/NO)
- Leak unique ID (OP/ BC OGC)
- Leak contains H2S (YES/NO)
- Leak located in building (YES/NO)
- Leak indicated in a building (YES/NO)
- Process block of leak
- Leaking component type
- Leaking component service type
- Leak rate quantification method
- Leak rate
- Leak repaired (YES/NO)
- Reason for non-measurement of leak
- Non-measurement reason other
- Precipitation
- Leak repair date
- Sum of days between detection and repair
- Leak repair method applied
- Leak repair confirmation method applied
- Sub surface leak coordinates
- Leaking comp other
- Repair other
- Process block other
- Basis for repair delay
- Leak scheduled to be repaired at next turnaround (YES/NO)
- Anticipated next turnaround date
- Fluid type

Why does industry report?

- 1. To ensure that surveys are completed**
- 2. To ensure that repairs are completed**
- 3. To quantify total leaks**
- 4. To quantify total emissions**
- 5. To determine the source of emissions**

Alternate Canadian jurisdiction requirements

Jurisdiction 1 (Alberta)

- Volume of fugitive emissions by facility ID (m³)
- Corresponding mass of methane emitted (kg) by facility ID
- The type of survey or screening (site/tank/well)
- The date of the survey/screening per site by facility ID
- The # of sources of fugitive emissions per site by facility ID
- Additional records are required to be kept and documented by the operator

Jurisdiction 2 (Canada)

- Data retention and report upon request from the Minister
- Must maintain emissions of methane per facility and leak incidences

Current data reporting challenges

- **2021 system challenges**
 - The eSubmission platform struggled with the data load in 2021
- **2021 QA/QC challenges encountered by the regulator**
 - Creating challenges for equivalency reporting
 - Creating delays in methane research
- **2022 deadline modifications**
 - Reporting timeline accelerated to facilitate QA/QC and meet equivalency reporting deadline
- **Data management challenges increase as the volume of data increases**

Recommendations

- **Modify the current reporting obligations to require only the following:**
 - Volume of fugitive emissions by facility ID (m³)
 - Corresponding mass of methane emitted (kg) by facility ID
 - The type of survey or screening
 - The date of the survey/screening per site by facility ID
 - The # of sources of fugitive emissions per site by facility ID

Benefits

- **Identifying key reporting details to meet equivalency needs and the needs of the OGC will reduce burden on both operators and the regulator**
 - Time consuming QA/QC of un-used data is an inefficient use of resources
- **Streamlining reporting will isolate key criteria that can be interpreted by a public audience – with appropriate context**
 - A focus on meaningful data for both the Commission and public
- **Industry resources can be diverted to methane emissions management**
- **OGC resources can be diverted to public messaging, regulatory design, research, etc.**

Questions/Comments

LDAR data reporting deadline in 2022

- **A component of CAPP's February 1 submission on the 2022 regulatory review was a request to revisit the amended deadline for LDAR reporting.**
 - A 30-day timeline for reporting will put a high strain on industry (current 2022 deadline is March 31, but the reporting methodology will only be available February 28)
 - A short timeline could increase, rather than decrease overall QA/QC challenges
 - CAPP and EPAC members are sympathetic to the Commission's equivalency reporting challenge this year (we recommend changing future reporting requirements)
 - A 60-day timeline (April 30 deadline) will provide OGC the data a month earlier than it was provided in 2021 (May 31), while giving industry more time for internal QA/QC
 - Industry also anticipates that less QA/QC will be required this year (as it is no longer the "first year" of reporting)

Operator-specific LDAR programs

- **Current LDAR requirements are imperfect and research is quickly showing there are more efficient ways to identify methane leaks**
- **“Alternative” or operator-specific LDAR programs are becoming increasingly utilized**
- **New technologies are increasingly being scrutinized/proven and adopted by industry and regulators**
- **A clear, predictable, and implementable methodology to approve operator-specific LDAR programs will allow operators to target bigger emissions more quickly**

Current requirements

- **Ground-level and component-level leak detection technologies:**
 - Comprehensive surveys:
 - Organic vapour analyzer
 - Optical Gas Imaging Cameras
 - Screening surveys:
 - Soap solution bubble test
 - Hearing, sight and smell sensing
- **Labour-intensive and time consuming approaches to find leaks with known short-comings:**
 - Limits of technology – difficult to identify emissions
 - Expertise required
 - Cameras can struggle to identify methane
 - Logistical challenges – difficult to see angles, access components

Non-regulatory technologies (aerial and continuous monitoring)

- **Aerial technologies are increasingly being used to identify upstream oil and gas emissions**
- **They are effective in finding large emissions sources that may be missed by ground-level surveys**
- **They have a high cost efficiency and are able to survey multiple sites quickly**
- **They are improving thresholds and have the ability to measure emissions year-round**
- **Provide high value at well pads and other facility types with low leak frequency**

Focusing on major emissions sources

- Research has shown that the majority of emissions come from fewer, larger emissions sources
- Non-regulatory (aerial) detection technologies can identify large sources more efficiently and cost-effectively than ground surveys

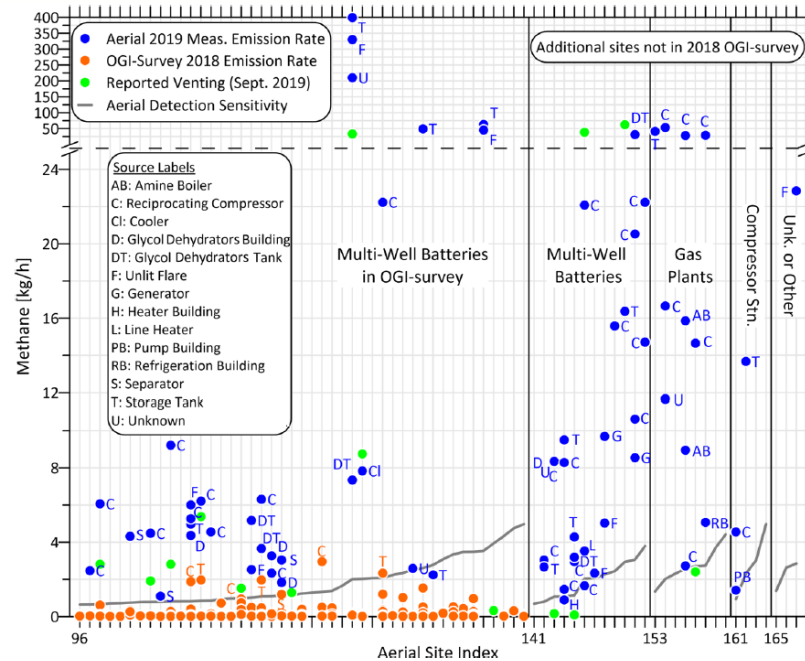


Figure 7. Site-by-site measured emissions for larger facilities in the aerial survey with identified individual source types labeled in blue. comparison with OGI survey emissions (orange) is shown for the 45 multiwell batteries in both surveys. The estimated GML lower sensitivity

Recommendations and benefits

- **Industry is requesting regulatory flexibility to implement fugitive emissions management programs that utilize more efficient and effective technologies**
- **Operators are eager to adopt new technology to find large leaks faster, but duplicating programs (operator-specific plus regulatory requirements) rarely makes sense**
- **Industry will be able to manage emissions more effectively and find large emissions sources more quickly if BC establishes a clear, predictable, and implementable pathway to operator-specific LDAR programs**
- **Industry believes that, in conjunction with a pathway to operator-specific LDAR, there is sufficient public data to support additional technologies being incorporated into the DPR in place of OGI surveys**

Questions/Comments