CORPORATE
EMERGENCY RESPONSE PLAN

24-Hour Emergency Number
1-877-458-8080

Regulatory 24-Hour Emergency Numbers

Alberta Energy Regulator/Alberta Environment and Parks Energy & Environmental Response Line	1-800-222-6514 780-422-4505 (outside of AB)
British Columbia Energy Regulator (BCER) Industry Incident Reporting Line	1-800-663-3456
Canada Energy Regulator	1-403-299-2773
Transportation Safety Board	1-819-997-7887
Saskatchewan Ministry of Energy and Resources	1-844-764-3637
Saskatchewan Ministry of Environment	1-800-667-7525
Manitoba Sustainable Development	1-204-944-4888
Manitoba Emergency Measures Organization	1-204-945-5555

Cenovus Energy Inc.
225 6 Ave SW, P.O. Box 766
Calgary, Alberta T2P 0M5
Bus: 403-766-2000
Fax: 403-766-7600

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CONFIDENTIALITY STATEMENT

The information in this document is confidential information of Cenovus Energy Inc. (CVE) and may not be disclosed to any person external to CVE without the prior written permission of the Program Steward.

The document remains the property of CVE and may be repossessed at any time. Unauthorized use or duplication of this plan is strictly prohibited and may result in disciplinary action and/or civil prosecution.

DOCUMENT OWNER RESPONSIBILITIES

The Program Steward shall review, approve, and own all Incident and Emergency Management plans applicable to their area of authority.

IEM PROGRAM STEWARD

The Incident and Emergency Management (IEM) Program Steward is accountable for facilitating the update of this plan annually.

Any errors or omissions in the plan should be brought to the Program Steward's attention.

Complete the Change Request form on the IEM SharePoint Hub:
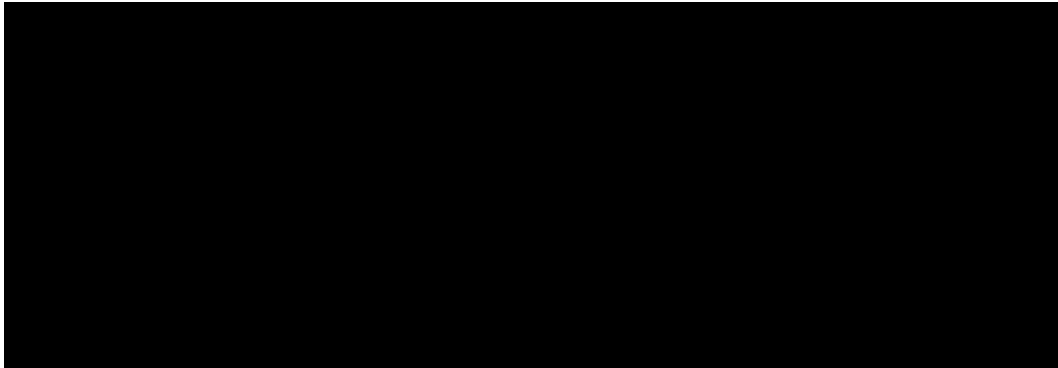
This Emergency Response Plan (Core section) is effective April 23, 2024.

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REVISION HISTORY

This Emergency Response Plan is effective April 15, 2024.

Date of Update Inserted Into ERP:	Signature:	Plan Holder Name:

Date of Revision	Reason for Revision	Section	Affected Pages
April 15, 2024	Annual update of the ERP. Apply any regulatory changes throughout, as well as client specific changes to standards and processes.	Foreword	All Pages
		Section 1	All Pages
		Section 2	Pg. 2-6, 2-29, 2-36
		Section 3	All Pages
		Section 4	Pg. 4-17 to 4-20, 4-23 to 4-24, 4-40 to 4-41
		Section 5	Pg. 5-3, 5-5, 5-9, 5-13 to 5-18, 5-21 to 5-26
		Section 6	All Pages
		Section 7	Pg. 7-9, 7-27 to 7-28, 7-34, 7-37
April 23, 2023	Annual update of the ERP. Apply any regulatory changes throughout, as well as client specific changes to standards and processes.	Foreword	Title Page, Pg. 0-1, 0-3, 0-11, 0-14
		Section 1	Pg. 1-11 to 1-12
		Section 4	Pg. 4-11 to 4-14, 4-17 to 4-24, 4-27, 4-35 to 4-37
		Section 5	Pg. 5-3 to 5-10, 5-13, 5-14, 5-17 to 5-22, 5-25 to 5-28, 5-30
		Section 6	Pg. 6-65 (Form A8)
		Section 7	TOC, Pg. 7-10, 7-43

April 15, 2022	Annual update of the ERP. Apply any regulatory changes throughout, as well as client specific changes to standards and processes.	Foreword	Title Page, Pg. 0-1, 0-3, 0-15, 0-16
		Section 1	Pg. 1-19, 1-37, 1-41, 1-52, 1-53
		Section 2	Pg. 2-3, 2-6, 2-7, 2-9, 2-11, 2-13, 2-15, 2-17, 2-29, 2-44
		Section 3	Pg. 3-3
		Section 4	Pg. 4-14, 4-17, 4-27, 4-39, 4-51
		Section 5	Pg. 5-3
		Section 6	Pg. 6-1, 6-3, 6-13, 6-15
		Section 7	Pg. 7-10, 7-11, 7-13, 7-14, 7-23, 7-27, 7-28
April 15, 2021	New ERP manual – based on amalgamation of Cenovus Energy (CVE) / Husky Energy (HSE) merger	All Core Sections (Foreword, Sections 1 to 7)	All Core Pages

DISTRIBUTION LIST

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PURPOSE

This manual outlines the framework, tools, and reference materials to facilitate a prompt, safe, efficient, and properly managed response to all incidents regardless of size or complexity. Therefore, this plan provides employees and contractors with practical tools that will guide them through the Preparedness and Response principles of Emergency Management.

The intent of this Emergency Response Plan (ERP) is to define effective measures in place to:

- Notify and protect the workers and the public.
- Minimize environmental impact.
- Minimize asset and property loss.
- Regain steady state of operations.
- Minimize emergency response time.
- Maximize response effectiveness.
- Coordinate with government agencies and stakeholders.
- Minimize business and reputational impact.

PLAN OBJECTIVES

The primary objective of this Emergency Response Plan (ERP) is to define the incident management system and organizational structure, process, and tools to respond effectively to all incidents regardless of size or complexity. It has been designed to be intuitive and have natural process flow utilizing the Incident Command System (ICS) and to comply with applicable regulations, standards, and industry best practices.

SCOPE

This manual applies to Canadian regulators in Alberta, British Columbia, Saskatchewan, and Manitoba; it does not apply to assets in Asia Pacific, Atlantic and USA.

This plan defines the emergency response process related to all hazards affecting petroleum operations. This Emergency Response Plan (ERP) outlines the process for an Alert / Minor, Level-1, Level-2, or Level-3 emergency for any jurisdiction or incident type.

This ERP clearly defines emergency team roles, functions, and duties to respond to emergency events based on incident priorities: Life Safety, Incident Stabilization, Environment and Property, and Stakeholder Management. This plan clarifies the following:

- Overall Incident Command System (ICS) response organization.
- Incident Command System (ICS) Roles and responsibilities.
- Guidance to determine the Emergency Level.
- Mechanisms to activate the ERP.
- Notification / communication requirements to stakeholders (public / government / responders).
- Documentation tools for accurate records management of events and decisions during an event.
- Guidance for post-emergency actions.

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TABLE OF CONTENTS

SECTION 8: AREA SPECIFIC INFORMATION

ACRONYMS

Acronym	Meaning
AEMA	Alberta Emergency Management Agency
AEOC	Alternate EOC (collated with legacy Husky Records Centre)
AER	Alberta Energy Regulator
AHS	Alberta Health Services
ARRC	Agency Response Readiness Centre
BCER	British Columbia Energy Regulator
BLEVE	Boiling Liquid Expanding Vapour Explosion
CANUTEC	Canadian Transport Emergency Centre
CAPP	Canadian Association of Petroleum Producers
CEPA	Canadian Environmental Protection Act
CER	Canadian Energy Regulator
CERC	Corporate Emergency Response Centre
CIC	Coordination and Information Centre
CLT	Cenovus Leadership Team
CMO	Consequence Management Officer
CMT	Crisis Management Team
CNSC	Canadian Nuclear Safety Commission
CSA	Canadian Standards Association
DD	Deputy Director
ECAN	Environment Canada
EDGE	Environmental & Dangerous Goods Emergencies
EMO	Emergency Measures Organization
EOC	Emergency Operations Centre
EPZ	Emergency Planning Zone
ERAC	Emergency Response Assistance Canada
ERG	Emergency Response Group
ERP	Emergency Response Plan
ESDV	Emergency Shut-Down Valve
ETA	Estimated Time of Arrival
FASC	Finance & Admin Section Chief
FH Order	Fire Hazard Order
H2S	Hydrogen Sulphide
HVAC	Heating Ventilation Air Conditioning
HVP	High Vapour Pressure

Acronym	Meaning
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IEM	Incident and Emergency Management
IIZ	Initial Isolation Zone
IMT	Incident Management Team
IO	Information Officer
IST	Incident Support Team
LA	Local Authority
LBV	Line Block Valve
LO	Liaison Officer
LPG	Liquefied Petroleum Gas
LSC	Logistics Section Chief
MD	Municipal District
MER	Ministry of Energy and Resources (SK)
MOE	Ministry of Environment (SK)
MSD	Manitoba Sustainable Development
NGL	Natural Gas Liquids
NOTAM	Notice to Airmen
OHS	Occupational Health and Safety
OSC	Operations Section Chief
OSCAR	Oil Spill Containment and Recovery
OSCP	On-Site Command Post
OSS	On-Site Supervisor
PAZ	Protective Action Zone
POC	Provincial Operations Centre
PPB	Parts Per Billion
PPE	Personal Protective Equipment
PPM	Parts Per Million
PSC	Planning Section Chief
RCMP	Royal Canadian Mounted Police
REOC	Regional Emergency Operations Centre
RHA	Regional Health Authority
SABA	Supplied Air Breathing Apparatus

Acronym	Meaning
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheet
SME	Subject Matter Expert
SO	Safety Officer
SO2	Sulphur Dioxide
STARS	Shock Trauma Air Rescue Society
TDG	Transportation of Dangerous Goods
TSB	Transportation Safety Board
VEOC	Virtual Emergency Operations Centre
WCSS	Western Canadian Spill Service
WHMIS	Workplace Hazardous Materials Information System

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SECTION 1: INITIAL RESPONSE

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STEP 1 - INITIAL ACTIONS

- First On-Scene Strategy (7 Steps)
- Life Safety highest priority
- Assign On-Site Supervisor
- Initial Site Size-Up
- Initial Hazard Identification
- Immediate Resource Requirements
- Focus on Incident Stabilization

STEP 2 - NOTIFICATIONS

On-Site Supervisor

- Notify designated Incident Commander (ie. Supervisor / Line Management)
- Request immediate resource requirements

Incident Command / IMT

- Complete ICS 209 form
- Determine Level of Emergency
- Activate and establish Incident Management Team (IMT) if required
- Complete immediate public protection measures
- Complete internal and external notifications
- Fulfill immediate resource requirements
- Confirm Life Safety actions

On-Site Supervisor and IC to complete Incident Status Summary

STEP 3 - RESPONSE AND ASSESSMENT

On-Site Supervisor

- Re-evaluate response effectiveness and potential for escalation
- Develop and communicate response assignments
- Develop/Communicate/ execute plan of action
- Establish briefing schedule with IMT
- Ensure on site safety is established
- Confirm timing of incident briefing / regular status updates with the Operations Section Chief (OSC)
- Ensure events are documented

Incident Command / IMT

- Communicate incident priorities to OSS
- When appropriate transfer command from OSS to IC
- Clarify immediate needs from OSS
- Assess response actions and adjust as required
- When OSC is established, ensure change of command is communicated
- Ensure events are documented

STEP 4 - PLAN DEVELOPMENT

On-Site Supervisor

- Ensure incident objectives are communicated to all on site personnel
- Execute on incident objectives
- Complete regular briefings and maintain situation awareness
- Ensure significant incident changes are immediately communicated to OSC

Incident Command / IMT

- Complete ICS 201 form and including IC endorsement
- Communicate ICS 201 to response organization (all levels)
- Expand response organization as required
- Complete briefing schedule
- Confirm communication to external stakeholders including regulatory agencies
- Adjust operational periods as required

STEP 5 - PLAN BRIEFING / COMPLETION

On-Site Supervisor

- Ensure incident objectives are communicated to all on site personnel
- Execute on incident objectives
- Complete regular briefings and maintain situation awareness
- Ensure significant incident changes are immediately communicated to OSC

Incident Command / IMT

- Conduct situational update briefing (Planning Section Chief to facilitate)
- Review and update the ICS 201 form
- Communicate and execute updated objectives
- Continue execution and re-evaluation process until incident stand down, new operational period or transition to proactive phase

IMT PROACTIVE PHASE

- TACTICS MEETING
- PREPARING FOR THE PLANNING MEETING
- PLANNING MEETING
- PREPARING FOR THE TACTICS MEETING
- INCIDENT ACTION PLAN PREPARATION & APPROVAL
- COMMAND & GENERAL STAFF MEETING
- OPERATIONS BRIEFING
- IC / UC DEVELOPS / UPDATES INCIDENT OBJECTIVES
- EXECUTE PLAN AND ASSESS PROGRESS
- NEW OPERATIONAL PERIOD BEGINS
- INITIAL IC / UC MEETING

INITIAL RESPONSE

- STEP 5 PLAN BRIEFING / COMPLETION
- EXECUTE PLAN
- STEP 4 PLAN DEVELOPMENT
- ASSESS PROGRESS
- STEP 3 RESPONSE AND ASSESSMENT
- STEP 2 NOTIFICATIONS
- STEP 1 INITIAL ACTIONS

cenovus ENERGY

FIVE STEP INITIAL RESPONSE GUIDE

February 2022

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STEP 1 – INITIAL ACTIONS

FIRST ON-SCENE STRATEGY

1	**EVACUATE** protect yourself	Get to a safe area away from the hazard
2	**ALARM**	• Alert other onsite personnel • Call for help (your supervisor or control room as appropriate)
3	**ASSESS**	• Resist the urge to rush in - others cannot be helped if you are injured • Gather at muster stations and conduct a head count • Consider wind direction • Identify exposure to environments that may be toxic, flammable, explosive or otherwise harmful • Ensure personnel understand hazards and control actions
4	**PROTECT**	Don breathing apparatus and other personal protective equipment as appropriate
5	**RESCUE**	As required, rescue personnel from hazardous areas to a safe area
6	**FIRST AID**	• Conduct CPR and administer first aid as needed • Provide ongoing care; do not leave casualty unattended
7	**MEDICAL AID**	• Arrange transport of victim(s) to medical aid • Provide information to Emergency Medical Services (EMS)
	ON-SITE SUPERVISOR	Assume On-Site Supervisor duties until relieved • Take action to isolate, control or contain the incident • Secure the area • Refer to On-Site Supervisor checklist in Section 2, General Staff Roles - Operations Section.

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STEP 2 – NOTIFICATIONS

AER/MER/MSD ASSESSMENT MATRIX

Table 1 — Consequence of Incident

Rank	Category	Example of consequence in category
4	Catastrophic	• Fatality. • National and international media interest. • Liquid release off lease not contained – potential for, or is, impacting water or sensitive terrain. • Gas release impact extends beyond lease – public health/safety jeopardized.
3	Major	• Worker(s) requires hospitalization. • Regional and national media interest. • Liquid release extends beyond lease – not contained. • Gas release impact extends beyond lease – public health/safety could be jeopardized.
2	Moderate	• First aid treatment required for on-site worker(s). • Local and possible regional media interest. • Liquid release not contained on lease. • Gas release impact has potential to extend beyond lease.
1	Minor	• No worker injuries. • Nil or no media interest. • Liquid release contained on lease. • Gas release impact on lease only.

Table 2 — Likelihood of incident escalating*

What is the likelihood that the incident will escalate, resulting in an increased exposure to public health, safety, or the environment?

Rank	Descriptor	Description
4	Almost certain or currently occurring	The incident is uncontrolled and there is little chance that the duty holder will be able to bring the hazard under control in the near term. The duty holder will require assistance from outside parties to remedy the situation.
3	Likely	Imminent or intermittent control of the incident is possible. The duty holder has the capability of using internal and external resources to manage and bring the hazard under control in the near term.
2	Moderate	Control of the incident may have deteriorated but imminent control of the hazard by the duty holder is probable. It is unlikely that the incident will escalate.
1	Unlikely	The incident is contained or controlled, and is unlikely to escalate. There is no chance of additional hazards. Ongoing monitoring required.

Add the rank from both above tables to obtain Incident Classification in Table 3 below; then notify and discuss with the AER/ER/MSD.

Table 3 – Incident Classification

Risk Level	Assessment Results
Very Low 2-3	Alert
Low 4-5	Level-1 emergency
Medium 6	Level-2 emergency
High 7-8	Level-3 emergency

Note: CER regulated assets are to follow the applicable provincial ERP Assessment Matrix for where the incident occurs. In AB, SK, and MB, follow the AER Matrix. In BC, follow the BCER Matrix.

Note: Hospitalization is defined as advanced medical intervention required to prevent disability or loss of life. Any hospitalization or fatality that meets the criteria of a Level 1 Emergency or higher requires notification to the Cenovus / Husky Energy Incident Commander and Deputy Director

Responses	Alert	Level-1 emergency	Level-2 emergency	Level-3 emergency
Communications				
Internal	Discretionary, depending on the duty holder policy.	Notification of off-site management.	Notification of off-site management.	Notification of off-site management.
Public	Courtesy, at duty holder's discretion.	Mandatory for individuals in the EPZ who have requested notification.	Planned and instructive in accordance with the specific ERP.	Planned and instructive in accordance with the specific ERP.
Media	Reactive.	Reactive, as required.	Proactive media management to local or regional interest.	Proactive media management to national interest.
Government	Reactive. Notify the AER/MER/MSD if public or media is contacted.	Notify the AER/MER/MSD. Call local authority and provincial health authority if public or media is contacted.	Notify the AER/MER/MSD, local authority, and provincial health authority.	Notify the AER/MER/MSD, local authority, and provincial health authority.
Actions				
Internal	On site, as required by the duty holder.	On site, as required by the duty holder. Initial response undertaken in accordance with the site-specific or corporate-level ERP.	Predetermined public safety actions are under way. Incident Support Team alerted and may be appropriately engaged to support on-scene responders.	Full implementation of incident management system.
External	On site, as required by the duty holder.	On site, as required by the duty holder.	Potential for multi-agency response (operator, municipal, provincial, federal).	Immediate multi-agency response (operator, municipal, provincial, federal).
Resources				
Internal	Immediate and local. No additional personnel required.	Establish what resources would be required.	Limited supplemental resources or personnel are required.	Significant resources are required.
External	None.	Begin to establish resources that may be required.	Possible assistance from government agencies and external support services.	Assistance from government agencies and external support services, as required.

BRITISH COLUMBIA ENERGY REGULATOR INCIDENT CLASSIFICATION MATRIX

Instructions: Start at the top and continue down until you check off any one box in both consequence and probability to determine the incident classification. *This matrix is required as an attachment upon submission of an incident through the Online Minor Incident Reporting System.*

Table 1. Consequence Ranking

Rank	Consequence (any one of the following)
4	☐ Major on-site equipment or infrastructure loss ☐ Major act of violence, sabotage, or terrorism which impacts permit holder assets ☐ Reportable liquid spill beyond site, uncontained and affecting environment ☐ Gas release beyond site affecting public safety
3	☐ Threats of violence, sabotage, or terrorism ☐ Reportable liquid spill or gas release beyond site, potentially affecting public safety, environment, or property ☐ HAZMAT worker exposure exceeding allowable ☐ Major on-site equipment failure
2	☐ Major on-site equipment damage ☐ A security breach that has potential to impact people, property or the environment ☐ Reportable liquid spill or gas release potentially or beyond site, not affecting public safety, environment, or property
1	☐ Moderate on-site equipment damage ☐ A security breach that impacts oil and gas assets ☐ Reportable liquid spill or gas release on location ☐ **Occurrence of magnitude 4.0 or greater induced earthquake within 3 km of oil and gas operations or any earthquake which is felt on surface within a 3 km radius of oil and gas operations
0	☐ No consequential impacts

** For this consequence criteria, a probability score of 2 or higher must be used.**

Table 2. Probability Ranking

Rank	Probability (any one of the following)
4	☐ Uncontrolled, with control unlikely in near term
3	☐ Escalation possible; under or imminent control
2	☐ Escalation unlikely; controlled or likely imminent control
1	☐ Escalation highly unlikely; controlled or imminent control
0	☐ Will not escalate; no hazard; no monitoring required

Table 3. Incident Risk Score and Classification

Consequence _____ + Probability _____ = Risk Score _____ (this must be completed)

Risk Score	Assessment Result
Minor (1-2)	**Notification Only;** permit holder must notify the BCER online within 24 hours using the Form A: Minor Incident Notification Form (https://bc-er.ca/node/11188). In addition to Form A, spills must also be reported to EMCR.
Moderate (3-4)	**Level-1 Emergency;** immediate notification (call EMCR)
Major (5-6)	**Level-2 Emergency;** immediate notification (call EMCR)
Serious (7-8)	**Level-3 Emergency;** immediate notification (call EMCR)

BCER Incident Classification Matrix

			Probability				
			4	**3**	**2**	**1**	**0**
			Uncontrolled, with control unlikely in near term	Escalation possible; under or imminent control	Escalation unlikely; controlled or likely imminent control	Escalation highly unlikely; controlled or imminent control	Will not escalate; no hazard; no monitoring required
Consequence	**4**	☐ Major on-site equipment or infrastructure loss ☐ Major act of violence, sabotage, or terrorism which impacts permit holder assets ☐ Reportable liquid spill beyond site, uncontained and affecting environment ☐ Gas release beyond site affecting public safety	Level 3	Level 3	Level 2	Level 2	Level 1
	3	☐ Threats of violence, sabotage, or terrorism ☐ Reportable liquid spill or gas release beyond site, potentially affecting public safety, environment, or property ☐ HAZMAT worker exposure exceeding allowable ☐ Major on-site equipment failure	Level 3	Level 2	Level 2	Level 1	Level 1
	2	☐ Major on-site equipment damage ☐ A security breach that has potential to impact people, property or the environment ☐ Reportable liquid spill or gas release potentially or beyond site, not affecting public safety, environment, or property	Level 2	Level 2	Level 1	Level 1	Minor Notification Form
	1	☐ Moderate on-site equipment damage ☐ A security breach that impacts oil and gas assets ☐ Reportable liquid spill or gas release on location ☐ ** Occurrence of magnitude 4.0 or greater induced earthquake within 3 km of oil and gas operations or any earthquake which is felt on surface within a 3 km radius of oil and gas operations	Level 2	Level 1	Level 1	Minor Notification Form	Minor Notification Form
	0	☐ No consequential impacts	Level 1	Level 1	Minor Notification Form	Minor Notification Form	No Notification Required

Minor Incidents

- The permit holder must report the minor incident to the BCER within 24 hours by electronic submission through the Online Minor Incident Reporting System, opened through KERMIT.
- If the minor incident involves a leak or a spill, EMCR must also be called at 1-800-663-3456 so that a Dangerous Goods Incident Report (DGIR) number may be issued.

Level 1, 2, or 3 Emergency

- If the incident receives a score of Level 1, 2, or 3, it must be **reported immediately (within 1 hour)** to the BCER's incident reporting line (EMCR 1-800-663-3456).

Escalating, Downgrading or Standing-Down of Emergency

- The BCER must be notified as soon as possible of any change to the emergency status.
- The permit holder must consult with the BCER for escalating, downgrading or the standing-down of an incident.

Permit Holders Post-Incident Report

The Form D: Permit Holder Post Incident Report Form (https://bc-er.ca/node/5771) must be submitted by the permit holder to the BCER within 60 days for:

1. Any Level 1, 2 or 3 emergency incident: complete Part A-P; or
2. Any pipeline incident (including minor notification): complete Part A-U; or
3. Upon request by the BCER

This report and accompanying documentation can be found on the BCER's website under Emergency Response and Planning and must be emailed electronically to EMP@bc-er.ca.

**** For this consequence criteria, a probability score of 2 or higher must be used.**

Note: CER regulated assets are to follow the applicable provincial ERP Assessment Matrix for where the incident occurs. In AB, SK, and MB, follow the AER Matrix. In BC, follow the BCER Matrix.

Spill Reporting Criteria

Where the permit holder holds or maintains rights, the permit holder must report to the BC Energy Regulator, all spills of materials as identified below:

- A spill or release of any amount of materials which impacts water ways
- Hydrocarbons; 100 litres where the hydrocarbon contains no toxic materials and does not impact water ways
- Produced/salt water; 200 litres where the fluid contains no toxic materials
- Fresh water; 10,000 litres
- Drilling or invert mud; 100 litres
- Sour Natural gas; 10 kg or 15 m^3 by volume where operating pressure is >100 PSI
- Condensate; 100 litres
- Any fluid including hydrocarbons, drilling fluids, invert mud, effluent, emulsions, etc. which contain toxic substances; 25 litres

Please refer to the BC Environmental Management Act; Spill Reporting Regulation, Schedule "Reporting Levels for Certain Substances" for determining reportable spillage amounts of other substances:

Other Reportable Incidents

The BCER's Incident Risk Classification Matrix is designed to assist permit holders in determining which incidents must be reported. However, some incidents, which do occur, may not meet the criteria outlined in the Incident Classification Matrix but still require notification to the BCER as a minor notification. These include the following:

- Spills or release of hazardous substances which are not provincially regulated, such as radioactive substances;
- Major damage to oil and gas roads or road structures;
- Drilling kicks when any one of the following occur:
  - pit gain of 3 m^3 or greater
  - casing pressure 85% of MA
  - 50% out of hole when kicked
  - well taking fluid (LC)
  - associated spill
  - general situation deterioration, i.e. leaks, equipment failure, unable to circulate, etc.
- Pipeline incidents, such as spills during construction phase, exposed pipe caused by flooding, pipeline over pressure, failure (without release) of any pressure control or ESD device during operations
- Security related issues which are relatively minor; such information may be required for tracking and monitoring purposes only

*Note: Refer to the Petroleum Industry Spill / Release Reporting Requirements in **Section 4: Emergency Response Procedures** for further spill reporting criteria and the Government Notification Matrix **in Section 5: External Agencies** for other reportable incidents.*

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INTERNAL NOTIFICATION FLOWCHART

Conventional
Activation Flowchart

Version 3.0 – April 15, 2021

| Cenovus Field Operations | ⚠ | Call 911 If Required |

Contact Cenovus Emergency Call Centre
1-877-458-8080
Activate On-Call Incident Commander

Incident Commander
Evaluates the Incident
Classify Emergency Level

Incident Management Team (IMT) required?

Yes

No

Activate Area On-Call IMT
via Cenovus Emergency Call Centre
1-877-458-8080

Continue to manage situation until emergency is resolved

Determine which functions are required and assign personnel

EOC support required?

No

Yes

Continue to manage at site level

Notify
Incident Support Team – Deputy Director
via Cenovus Emergency Call Centre
1-877-458-8080
Refer to Incident Support Plan for IST Activation

When contacting the Cenovus Emergency Call Centre be sure to request "IST – Deputy Director". You will then be connected to a conference bridge where the Deputy Director will join the Incident Commander for a briefing.

IST Activation by Director and Deputy Director

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EXTERNAL NOTIFICATION FLOWCHART

External Notifications
(from Step 2 – Internal Notification)

The Incident Commander is responsible to ensure Government Notifications are completed
Refer to Section 5: External Agencies for a complete listing of notification requirements

In case of medical emergency
call 9-1-1/ site Emergency Services
BEFORE calling Incident Commander.

BCER Incident Reporting Process

Emergency Incident/ Phase

Regulators
Alberta Energy Regulator (AER)
BC Energy Regulator (BCER)
Canada Energy Regulator (CER)
Saskatchewan Ministry of Energy & Resources (MER)
Saskatchewan Ministry of Environment
Transportation Safety Board (TSB)
Manitoba Sustainable Development (MSD)
Manitoba Emergency Measures Organization (EMO)

Public
Reference your appropriate site section to determine
the members of the public that require notification

Municipality
Reference your appropriate site section to determine
which local authorities you need to contact

Health Authority
Reference your appropriate site section to determine
which health authority you need to contact

Mobile Air Monitoring (if required)
Reference your appropriate site section to determine
which air monitoring company you need to contact

Government Agencies
Reference the Government Notification Matrix in
Section 5: External Agencies to determine which
government agencies require notification

Other
Reference your appropriate site section to determine
which other stakeholders require notification

Media
All contact shall be managed by the Information
Officer

NOTE: After External Notifications are complete,
reference Step 4 – Plan Development, and begin
building the initial Organization Structure (page 3)
within the ICS 201 Incident Briefing Form.

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A1 - AER FIRST CALL COMMUNICATION FORM

This form is to be used when taking information for spills/releases. It will assist in consistent gathering of data and should be attached to the FIS record.

General Incident Information

AER contact:	Field centre:

Licensee:	Caller:	Phone:

E-mail address for release report:

Licence #:	Pipeline line #:	Approval #:

Incident location: ____/_____ / _____ / _____ W ___ M

Emergency level:

Serious event? ☐ Yes ☐ No

If yes, what kind of serious event? ☐ Blowout   ☐ Explosion   ☐ Fire   ☐ Other control loss   ☐ Fracking   ☐ Casing failure

Land type (jurisdiction): ☐ Freehold   ☐ First Nations   ☐ Métis   ☐ CFB   ☐ Crown – Disposition #:

Agencies notified:	Date:

FIRST duty office (DO) contacted: ☐ Yes   ☐ No   If yes, date & time DO was contacted:

DO contact name:

Release Details

Volumes

Substance*	Released (m^3/10^3 m^3)	Recovered (m^3/10^3 m^3)	Disposal/storage location

* For emulsion, break down oil & water if possible.

Description of how the release volume was determined and verified (including calculations; e.g., spill length × width × depth):

Area affected (length × width):   m^2

How was the area affected determined? (Aerial survey, perimeter walk, range finder, samples taken,etc.):

Who delineated the spill area (environmental technologist, operator, etc.) and what process was used?

☐ Reminded licensee to update the AER immediately if release volumes or area changes from what was originally reported.

☐ Asked for the immediate submission of photos of the entire spill site to the AER and communicated that photos of the cleanup will need to be submitted with the release report.

Cause of release (suspected or actual):

Impact

Release off lease? ☐ Yes   ☐ No (pipeline right-of-way is off lease)

If yes, was the landowner notified?   ☐ Yes ☐ No   Name of landowner/agency:

Release within disposition boundary?   ☐ Yes   ☐ No

Outside disposition – was leaseholder notified?   ☐ Yes   ☐ No   Name of leaseholder:

☐   If outside disposition, reminded licensee that they will need a TFA.

Actual incident H_2S concentration (if applicable):   % / ppm / mol/kmol

Nearest town:	Distance and direction to town:

Environment affected: ☐ Air   ☐ Land   ☐ Water

Distance of release to the nearest water body, watercourse, or waterway:

How was this distance determined?

Wildlife/waterfowl/livestock affected: ☐ None   ☐ Habitat affected   ☐ Animals injured/killed

Notes/description:

Confirm how the release has been or will be contained:

Confirm how the release has been or will be cleaned up:

Evacuees (#):	People injured (#):	Fatalities (#):

Were members of the public affect?   ☐ Yes ☐ No

If yes, indicate if they were

☐ notified   ☐ instructed to shelter in place   ☐ advised to evacuate

Notes/description:
Media interest? ☐ None ☐ Local ☐ Regional ☐ National
Damage to public property? ☐ Minor/no damage ☐ Substantial (home covered in oil) ☐ Extensive (home destroyed)

Pipeline Specific		
Hit? ☐ Yes ☐ No	Line #:	Test failure? ☐ Yes ☐ No
Normal operating pressure: kPa		Maximum operating pressure: kPa
Is the pipeline shut in, depressured, and isolated? ☐ Yes ☐ No		
If yes, date & time:		
What is the total volume of liquid in the pipeline?		
Are there isolation valves? ☐ Yes ☐ No If yes, have they been activated? ☐ Yes ☐ No		
Are there any other pipelines that tie into the failed line? ☐ Yes ☐ No If yes, have they been shut in/isolated? ☐ Yes ☐ No		
☐ Reminded the company to contact the AER before excavating the pipeline.		
☐ Reminded, advised, or directed the company that the pipeline is not to be returned to service without the AER's permission.		
Right-of-way (ROW)		
☐ Licensee has confirmed when the pipeline ROW and well were last checked. Date:		
How was the ROW surveillance conducted (from the air, by quad, on foot, using infrared, etc.)?		
☐ Requested that daily production volumes for the well/pipeline be submitted within 24 hours.		
Investigation information		
What operations are currently taking place (containment, sampling, line locating, retaining contractors/consultants, pipeline excavation, repair, site access, EM survey, etc.)?		

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	FORM C **EMERGENCY INCIDENT FORM** BC Energy Regulator 6534 Airport Road Fort St. John BC V1J 4M6 Phone: (250) 794-5200 emp@bc-er.ca

This is an internal BCER document provided to Industry for reference purposes only.

This document outlines the information that will be requested by BCER emergency management staff following any Level 1, 2 or 3 incident, as defined in the Emergency Management Matrix available on the BCER's website.

	FORM C
BC Oil & Gas COMMISSION	**EMERGENCY INCIDENT FORM**
	BCOGC
	6534 Airport Road
	Fort St. John BC V1J 4M6
	Phone: (250) 794-5200
	emp@bcogc.ca

This form is to be used for emergencies which meet OGC Level 1, 2, or 3 Classification.

The emergency must be reported to the BCER within 1 hour of the incident.
BCER 24 hour Emergency Number: 250-794-5200
EMBC 24 hour Emergency Number: 1-800-663-3456

MISCELLANEOUS INFORMATION		
DGIR #:	Ledger Number:	Kermit Number:
Incident Date (YYYY-MM-DD):		Incident Time (24 hour clock): ☐ PST ☐ MST
Received Date (YYYY-MM-DD):		Received Time (24 hour clock): ☐ PST ☐ MST
INFORMATION OF PERSON REPORTING INCIDENT TO OGC		
Permit holder Name:		Reported by (name):
Phone Number:		Alternate Number:
E-mail:		Fax Number:
INCIDENT DETAILS		

LEVEL OF EMERGENCY

Risk Score: (attach risk matrix)   ☐ Level 1   ☐ Level 2   ☐ Level 3

☐   Informed company they must contact the OGC to downgrade or stand down the level.

SITE TYPE (Select one only)

☐ Well (Active)	☐ Well (Abandoned/Suspended)	☐ Remote Sump

☐ Well (Drilling & Completions): Rig Name:

☐ Battery/Plant/Facility	☐ Tank Farm/Storage	☐ Pipeline
☐ Riser (Pipeline)		

☐ Road or Road Structure: Name: Location on road:

☐ Other -Specify:

INCIDENT TYPE (check all that apply)

☐ Spill (releases and discharges)	☐ Fire/Explosion	☐ Drilling Kick
☐ Worker Injury	☐ Security (theft, threat, sabotage, terrorism)	☐ Induced Seismicity
☐ Well Bore Communication	☐ Pipeline Boring	☐ Vehicle
☐ Equipment/Structural Damage		

☐ Other -Specify:

ACTIVITY (check all that apply)

☐ Construction (road, lease, pipeline, facility)	☐ Drilling/Exploration	☐ Waste Management
☐ Processing (natural gas, petroleum liquids, other)	☐ Well Fracturing	☐ Servicing
☐ Repair	☐ Flaring (emergency)	☐ Well Testing
☐ Pressure testing	☐ Transportation	

☐ Other: Specify:

CONSEQUENCE OR IMPACTS (check all that apply)(If none, leave blank)

☐ Worker Safety (fatality, injuries)	☐ Property (government, public, private)	☐ Economic (loss of and/or damage to equipment or infrastructure, loss of production, work stoppage)

☐ Other -Specify:

AREA INFORMATION

Land Type: ☐ Private Land   ☐ Crown Land   Field Name:

Area Type: ☐ Forest   ☐ Muskeg   ☐ Farmland   ☐ Residential   ☐ Other

Access:	☐ ATV	☐ Helicopter	☐ Four-wheel-drive	☐ Two-wheel-drive	☐ Unknown

Name of road the asset is located on:

Km where the incident occurred:

Distance to nearest residence/public facility:

Nearest City/Town/Open Camp:

CAUSE (check all that apply)		
☐ Third Party	☐ Manufacturing Defect	☐ Corrosion (internal, external)
☐ Employee (negligence, procedural, behavioural)	☐ Natural (weather, flood, fire)	☐ Failure (materials, mechanical, equipment, system)
☐ Geological	☐ Over Pressuring Equipment	

☐ Unknown at this time Explain:

☐ Other Factors -Specify:

CAUSE/REMEDIAL ACTIONS

Describe the cause and **remedial actions** in more detail:

WEATHER

Weather Conditions:	☐ clear	☐ cloudy	☐ other

Wind Direction: From: ☐N ☐NE ☐NW ☐E ☐SE ☐S ☐SW ☐W

Wind Strength	☐ calm	☐ moderate	: ☐ strong	☐ gusty

Temperature: °C

Comments:

PUBLIC INJURIES / MEDICAL EMERGENCIES

☐ First Aid	☐ Hospitalization	☐ Fatality

Other:

NOTIFICATION

What government agencies has the permit holder notified?

☐ EMBC	☐ Ministry of Environment	☐ Ministry of Transportation
☐ Public Works	☐ WorkSafe BC	☐ Local Health Authority
☐ Regional/Municipal Authority	☐ RCMP	☐ Ministry of Forest
☐ National Energy Board	☐ Other Specify:	

Permit Holder Instructed to call:

MATERIAL INFORMATION

Is spill off lease? ☐ Yes ☐ No

Spill Material Type:　☐ Corrosive Acid　☐ Emulsion (oil, gas, water)
☐ Fresh Water　☐ Liquid Hydrocarbon (crude, oil, diesel, fuel)　☐ Methanol
☐ Non-Toxic Gases (Nitrogen, Carbon Dioxide, Inert Gases) ☐ Non Toxic Liquids ☐ Salt Water
☐ Sour Natural Gas　☐ Sour Liquid (H2S) ☐ Sweet Natural Gas ☐ Toxic Gas ☐ Toxic Liquid
☐ Other

GAS

Does Material contain any H2S? ☐ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, how much? _____ ppm

Gas Rate:_____ 10^3m^3d or mmcfd	Gas Volume :_____ 10^3m^3 or mmscf
Can you hear/smell gas?　☐ Yes ☐ No	Propane/NGLs/LPSs?　☐ Yes ☐ No

LIQUID

Does Material contain any H2S (Oil, water, condensate)? ☐ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, how much? _____ ppm

Liquid Rate:_____ m^3/d or BPD	Liquid Volume :_____ m^3 or bbls or litres

Other (Describe):

Has spill been cleaned up?　☐ Yes ☐ No ☐ N/A

Date of Clean Up/Proposed Clean Up: _____ (mmm dd, yyyy)

Estimated Cost of clean-up:　$

SAFETY ISSUES

Hazard Response Zone Size:_____ km

Are responders in danger? ☐ Unknown ☐ No ☐ Yes:

Are public in danger? ☐ Unknown ☐ No ☐ Yes

First Nations Band Affected: ☐ No ☐ Yes Name of Band: _____

Public safety actions taken:

☐ Evacuation ☐ Sheltering **(Instruct Permit holder to contact Local Authority)**

☐ Roadblocks ☐ Do you need or do you have a Closure Order ? **(Instruct Permit holder to contact MOT up to mile 82 on Alaska Highway or Public Works from 82 north on Alaska highway for any public roads, and the OGC for Petroleum Development Resource roads , or Ministry of Forestry for forestry roads)**

☐ Do you need or do you have a NOTAM?

☐ Have you conducted a Transient Survey?

☐ Any Media Releases must be done in conjunction with OGC

☐ Have you or do you need to dispatch a Mobile Air Quality Monitoring **(Instruct Permit holder to contact Health Authority if public are involved)**

☐ Have you or will you need to Ignite?

☐ Have you notified all tenure holders? Non-resident landowners/Trappers/Guide-Outfitters/Range Allotments/Grazing Lease

ASSETS

GEOPHYSICAL PROGRAM (A UTM location is required)

Geophysical #:	Program Name:

Client Name:

UTM (NAD 83):   m easting   m northing

 (Place on the program that incident happened REQUIRED)

SITE (On lease equipment, wells, or facilities) Fill information in for asset with incident.

Location of asset: NTS _____-_____-_____ /_____-_____-_____ or

DLS _____, SEC _____, TWP _____, RGE _____ W6M

OGC Site #:	Site Detail (on lease equipment):

WELL

Well Authorization #:	Status of well:
Depth/Perforation: m KB	Wellbore Fluid Density: kg/m^3

Pit Gain		m	Kill Fluid Density		kg/m^3
*SIDPP/SITP		kPa	*SICP		kPa
*RSPP		kPa	Equipment:		
Operating Pressure:		kPa	Shut In Pressure:		kPa

*SIDPP - Shut in Drill Pipe Pressure/SITP – Shut in Tubing Pressure/SICP – Shut in Casing Pressure/RSPP – Reduced Speed Pump Pressure

FACILITIES

OGC Facility Code # :	Equipment on Site :
Design Capacity:	Actual Throughput:
Operating Pressure:	Operating Temperature:

PROJECT (PIPELINES) (A UTM location is required)

Project Location

NTS From _____-_____-_____ /_____-_____-_____

NTS To _____-_____-_____ /_____-_____-_____ or

DLS From _____, SEC _____, TWP _____, RGE _____ W6M

DLS To _____, SEC _____, TWP _____, RGE _____ W6M

UTM (NAD 83):   m easting   m northing

(Place on Pipeline where incident happened REQUIRED)

Project #	Pipeline Segment #
Product:	Line Length between valves: km
ID mm	OD mm
Operating Pressure kPa	Maximum Operating Pressure kPa
ESD or Block Valve Closure? ☐ Yes ☐ No ☐ Unknown	

OTHER LOCATION

(Any asset that does not apply to above such as a road, remote sump, borrow pit, etc)

(A UTM location must be filled out in the Location Section.)

Location Type:	Location Description :

Location of asset: NTS _____-_____-_____ /_____-_____-_____ or

DLS _____, SEC _____, TWP _____, RGE _____ W6M

UTM (NAD 83):   m easting   m northing   REQUIRED

GPS: Latitude: Longitude:

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PUBLIC PROTECTION MEASURES FLOWCHART - AB / SK / MB

Is there potential for the release to impact beyond the lease, facility or pipeline right of way?

No → No public protection measures required

Yes ↓

Do any of the following apply:
- ☐ The release is expected to pass over quickly
- ☐ The public would be at a higher risk if evacuated
- ☐ There is not enough time or warning to safely evacuate the public
- ☐ The source and nature of the release has not been identified
- ☐ The release is an HVP product

No ↓ → **Evacuation**
- ☐ Begin evacuating the public

Yes ↓ → **Shelter**
- ☐ Begin sheltering the public

Refer to Evacuation Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Refer to Shelter-in-Place Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Evacuation begins in the IIZ and expands outwards into the PAZ downwind of the release so that members of the public are not exposed to the hazard.

IIZ
Initial Isolation Zone
If safe to do so, the licensee must evacuate public from the IIZ.

PAZ
Protective Action Zone
Evacuation / Shelter-in-Place all public downwind of the incident

EPZ
Emergency Planning Zone
Giving priority to those who have special needs and / or have requested early notification

Modified EPZ
Emergency Planning Zone
Any public that are outside the calculated EPZ that may be effected.

Ignition must take place when one of the following conditions have been met:
- ☐ Although required, evacuation of the response zones has not taken place.
- ☐ H_2S concentrations in excess of 10 ppm over a 3-minute average in unevacuated parts of the EPZ.
- ☐ H_2S concentrations exceed 1 ppm per one hour average in urban density developments.
- ☐ Monitoring is not taking place due to weather or other unforeseen circumstances.
- ☐ The release cannot be brought under control in the short term.

AND
- ☐ Personnel working at the site can be cleared to a safe distance.

Has ignition criteria been met?

Is there an urban centre within the EPZ?

Yes ↓

Notify the Municipality and the Health Authority.

No ↓
- ☐ Continue air monitoring
- ☐ Continue evacuation / shelter procedures

Yes ↓

Refer to the H_2S / HVP Ignition Procedure behind the Public Protection Measures tab in **Section 4: Emergency Response Procedures**

- ☐ Continue air monitoring
- ☐ Continue evacuation / shelter procedures

Is there potential for the release to impact the public outside of the EPZ?

No ↓
- ☐ Continue air monitoring
- ☐ Continue evacuation / shelter procedures in the EPZ

Yes ↓
- ☐ Work with local authority to determine the need for evacuation / shelter outside of the EPZ
- ☐ Continue air monitoring

EPZ / IIZ / PAZ zone diagram — Wind Direction, Incident, Plume Direction

Evacuation Requirements
Revised March 2021

For a sour gas release, the licensee must continuously assess and act on the need to expand the evacuation area based on the monitored levels of H_2S and SO_2. In the absence of monitored readings, responders should advise the residents to Shelter-in-Place.

H_2S Requirements

1 to 10 ppm (3 minute average)	Individuals who requested notification so that they can voluntarily evacuate before any exposure to H_2S must be notified.
Above 10 ppm (3 minute average)	Local conditions must be assessed and all persons must be advised to evacuate and/ or shelter

* If monitored levels over the 3 minute interval are declining (i.e., three readings show a decline from 15 ppm to 10 ppm to 8 ppm over 3 minutes), evacuation may not be necessary even though the average over the 3 minute interval would be 11 ppm. Licensees should use proper judgement in determining if evacuation is required.

SO_2 Requirements

0.3 ppm (24-hour average)	Immediate evacuation of the area must take place.
1 ppm (3-hour average)	
5 ppm (15-minute average)	

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PUBLIC PROTECTION MEASURES FLOWCHART - BC

Is there potential for the release to impact beyond the lease, facility or pipeline right of way?

No

Yes

Continue with control / containment measures

Do any of the following apply:
- [ ] The release is expected to pass over quickly
- [ ] The public would be at a higher risk if evacuated
- [ ] There is not enough time or warning to safely evacuate the public
- [ ] The source and nature of the release has not been identified
- [ ] The release is an HVP product

No

Yes

Evacuation
- [ ] Begin evacuating the public

Shelter
- [ ] Begin sheltering the public

Refer to Evacuation Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Refer to Shelter-in-Place Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Ignition must take place when one of the following conditions have been met:
- [ ] Although required, evacuation of the response zones has not taken place.
- [ ] H_2S concentrations in excess of 10 ppm over a 3-minute average in unevacuated parts of the EPZ.
- [ ] H_2S concentrations exceed 1 ppm per one hour average in urban density developments.
- [ ] Monitoring is not taking place due to weather or other unforeseen circumstances.
- [ ] The release cannot be brought under control in the short term (ignition decision will be made by Incident Commander. Notify Regulatory Agency intention to ignite.
                              AND
- [ ] Personnel working at the site can be cleared to a safe distance.

Has ignition criteria been met?

No

Yes

Is there an urban centre within the HPZ?

Yes

Notify the Municipality and the Health Authority.

Refer to the H_2S / HVP Ignition Procedure behind the Public Protection Measures tab in **Section 4: Emergency Response Procedures**

- [ ] Continue air monitoring for H_2S
- [ ] Continue evacuation / shelter procedures

- [ ] Continue air monitoring for SO_2
- [ ] Continue evacuation / shelter procedures

Is there potential for the release to impact the public outside of the HPZ?

No

Yes

- [ ] Continue air monitoring for H_2S or SO_2
- [ ] Continue evacuation / shelter procedures in the HPZ

- [ ] Work with local authority to determine the need for evacuation / shelter outside of the HPZ
- [ ] Continue air monitoring for H_2S or SO_2

Note: Evacuation outside the HPZ is based on air monitoring readings and not the level of emergency.

Evacuation begins closest to incident and expands outward downwind of the release so that members of the public are not exposed to the hazard.

Closest to Incident
If safe to do so, the licensee must evacuate public closest to the incident.

Downwind
Evacuation / Shelter-in-Place all public downwind of the incident

**HPZ
Hazard Planning Zone**
Giving priority to those who have special needs and / or have requested early notification

**Modified HPZ
Hazard Planning Zone**
Any public that are outside the calculated HPZ that may be effected.

Notification and Evacuation Requirements Outside of the HPZ

For a sour gas release, the licensee must continuously assess and act on the need to expand the evacuation area based on the monitored levels of H_2S and SO_2. In the absence of monitored readings, responders should advise the residents to Shelter-in-Place.

H₂S Requirements

1-10 ppm	Individuals who requested notification so that they can voluntarily evacuate before any exposure to H_2S or SO_2 must be notified.
10 ppm and above (1-hour average)	Local conditions must be assessed and all persons must be advised to evacuate and/or shelter.

Note: H_2S Evacuation Level – when downwind monitoring at the nearest unevacuated residence, outside the Hazard Planning Zone, indicates a level of 10 ppm, evacuation procedures will be initiated if safe to do so.

SO₂ Requirements

1-5 ppm	Individuals who requested notification so that they can voluntarily evacuate before any exposure to H_2S or SO_2 must be notified.
5 ppm and above	Local conditions must be assessed and all persons must be advised to evacuate and/or shelter.

Revised March 2021

B4 - ROADBLOCK LOG

Only emergency responders should be allowed to enter the Emergency Planning Zone (EPZ).

Date: _____   Responder Name:_____

Responder Position: _____   Responders Phone No.: _____

Vehicle Type	License Plate Number and Province / State	Name of Driver (if available)	Number of People in Vehicle	Time Entering Zone	Time Exiting Zone	Comments (Record all vehicles turned away)

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INCIDENT MANAGEMENT TEAM INITIAL BRIEFING AGENDA

Incident Commander Briefing

- Information received directly for the On-Site Supervisor

- ICS roles will be assigned prior to the briefing being conducted, address any role deficiencies

Purpose

Provide situational awareness to the Incident Management Team (IMT) regarding the incident situation, actions taken, on-site organizational structure and resources activated or requested.

Facilitator / Duration

- Current Incident Commander

- Duration approx. 10-15 min max.

Ground Rules

- Ensure no distraction during briefing

- Phones on vibrate / silent

- Attendees are focused and no side conversations

- Stick to the agenda

IMT Briefing Agenda

1. Incident location

2. Time of incident

3. On-site Command Post location

4. Staging area location

5. Incident details

6. Impacts or potential impacts to Life Safety, Incident Stabilization, Environment/Property, and Stakeholder Management

7. Actions taken and status

8. Notifications completed (Internal/External)

9. Resource onsite/ordered

10. On-site organizational structure

11. Transfer of command from On-site Supervisor to Incident Commander (when and who)

12. Methods of communication (Sat phone, Cell phone, Radio, etc.)

13. Immediate notifications to the Incident Commander (major changes to the incident)

14. Assign immediate actions to Command and General Staff

15. Set up briefing cycle (Time, location)

Note: Consider using pictures, videos and/or documentation to enhance situational awareness

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STEP 3 – RESPONSE AND ASSESSMENT

ICS 211 FORM - CHECK IN / OUT

Incident Name:		Date:		Time:		Operational Period:

Check-in Location: ☐ ICP ☐ EOC ☐ VEOC ☐ Staging Area ☐ Other: Staging Area Manager:

Name	Company	ICS Section / Assignment	Primary Contact Number	Status			Time	
				Available	In-service	Out-of-order	In	Out

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ICS FORM 207a – Incident Management Team (IMT) Organization Chart

Incident Name:_____

Date:_____ **Time:**_____

Operational Period:_____

Incident Commander

Name:_____ Ph:_____

Deputy Incident Commander

Name:_____ Ph:_____

Information Officer

Name:_____ Ph:_____

ICS Process Advisor

Name:_____ Ph:_____

Scribe

Name:_____ Ph:_____

Safety Officer

Name:_____ Ph:_____

Liaison Officer

Name:_____ Ph:_____

Operations Section Chief

Name:_____ Ph:_____

Planning Section Chief

Name:_____ Ph:_____

Logistics Section Chief

Name:_____ Ph:_____

Finance & Admin Section Chief

Name:_____ Ph:_____

Staging Area Manager

Name:_____ Ph:_____

Documentation Unit

Name:_____ Ph:_____

Situation Unit

Name:_____ Ph:_____

Resources Unit

Name:_____ Ph:_____

Demobilization Unit

Name:_____ Ph:_____

Technical Specialist(s)

Name:_____ Ph:_____

Service Branch Director

Name:_____ Ph:_____

Communications Unit

Name:_____ Ph:_____

Medical Unit

Name:_____ Ph:_____

Food Unit

Name:_____ Ph:_____

Support Branch Director

Name:_____ Ph:_____

Supply Unit

Name:_____ Ph:_____

Facilities Unit

Name:_____ Ph:_____

Ground Support Unit

Name:_____ Ph:_____

Time Unit

Name:_____ Ph:_____

Procurement Unit

Name:_____ Ph:_____

Compensation & Claims Unit (Insuranc

Name:_____ Ph:_____

Cost Unit

Name:_____ Ph:_____

Public Protection Supervisor

Name:_____ Ph:_____

On-Site Supervisor

Name:_____ Ph:_____

Air Monitor Team Lead

Roadblock Team Lea

Rover Team Lead

Telephoner Team Lea

Reception Centre Rep

Site Safety

Control

Containment

Other

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ICS 214 FORM - INDIVIDUAL ACTIVITY LOG

ICS Form 214 – Individual Activity Log

This log provides a place for individual responders to capture information and notes during the response to an emergency incident.

Name: _____

Date: _____

Incident/ Event Name: _____

ICS Role: _____

Guidance Notes:

- **DO NOT REMOVE ANY PAGES FROM THIS LOG. Do not erase or scratch out mistakes or changes.** Simply run a single line through the text so that it is still legible.

- Key facts should be logged with the Documentation Unit/ Planning Section on the Event Log.

- When you are finished with this log, draw a line under your last comment and sign, date and time underneath the line. Hand the log to the **Documentation Unit personnel/ Planning Section Chief** before you leave the Incident Command Post (ICP)/Emergency Operations Centre (EOC)/Virtual Emergency Operations Centre (VEOC).

- Please consult the Legal Officer if you have any questions or concerns regarding **PRIVILEGE AND CONFIDENTIALITY**.

Page ___ of _____

Event:		Date:
		By:

Activity Log	
Time	Details

Page ____ of _____

Event:	Date:
	By:

Activity Log	
Time	Details

Page ___ of ____

Event:	Date:
	By:

Activity Log	
Time	Details

Page ____ of _____

ICS 233 FORM - OPEN ACTION TRACKER

Incident Name:		Prepared by:		ICS Position:				
Date Initiated:		Time Initiated:						

No.	Description	Action Owner	Briefed	Start Date	Status	Notes	Target Date	Completion Date
1			☐					
2			☐					
3			☐					
4			☐					
5			☐					
6			☐					
7			☐					
8			☐					
9			☐					
10			☐					
11			☐					

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ICS 215a FORM – INCIDENT ACTION PLAN SAFETY ANALYSIS

Incident Name:	Date / Time Initiated:
Prepared by:	ICS Position:

Division or Group	Potential Hazards	Controls (e.g. PPE, buddy system, escape routes)

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STEP 4 – PLAN DEVELOPMENT

ICS 201 FORM – INCIDENT BRIEFING

Incident Name:		Incident Location (LSD/NTS):	
Time of Event:	Time Zone:		Date of Event (mm/dd/yy):
Level of Emergency: ☐ Alert/Minor Level ☐ Level 1 ☐ Level 2 ☐ Level 3			
Incident Commander Name & Phone Number:		ICP Location / Phone Number:	STARS / 911 Notified: ☐ Yes ☐ No
On-Site Supervisor Name & Phone Number:		On-Site Command Post Location:	

Initial Emergency Summary:

Safety Considerations:

Map Sketch:

Note: Maps can be drawn or attached here.

Page 1 of 6

Priorities	Problems	Objectives
Life Safety		
Incident Stabilization		
Environment / Property		
Stakeholder Management		

Current and Planned Actions:

Time	Actions

Current Organizational Structure: Fill in current response structure (*ICS 207a Form – Incident Management Team Organization Chart (IMT)*)

ICS FORM 207a – Incident Management Team (IMT) Organization Chart

Incident Name:_____

Date:_____ Time:_____

Operational Period:_____

Incident Commander

Name:_____ Ph:_____

Scribe(s)

Name:_____/_____ Ph:_____
[Function]

Name:_____/_____ Ph:_____
[Function]

Deputy Incident Commander

Name:_____ Ph:_____

Information Officer

Name:_____ Ph:_____

Safety Officer

Name:_____ Ph:_____

Liaison Officer

Name:_____ Ph:_____

ICS Process Advisor

Name:_____ Ph:_____

Operations Section Chief

Name:_____ Ph:_____

Planning Section Chief

Name:_____ Ph:_____

Logistics Section Chief

Name:_____ Ph:_____

Finance & Admin Section Chief

Name:_____ Ph:_____

Staging Area Manager

Name:_____ Ph:_____

Documentation Unit

Name:_____ Ph:_____

Situation Unit

Name:_____ Ph:_____

Resources Unit

Name:_____ Ph:_____

Demobilization Unit

Name:_____ Ph:_____

Technical Specialist(s)

Name:_____ Ph:_____

Service Branch Director

Name:_____ Ph:_____

Support Branch Director

Name:_____ Ph:_____

Communications Unit

Name:_____ Ph:_____

Medical Unit

Name:_____ Ph:_____

Food Unit

Name:_____ Ph:_____

Supply Unit

Name:_____ Ph:_____

Facilities Unit

Name:_____ Ph:_____

Ground Support Unit

Name:_____ Ph:_____

Time Unit

Name:_____ Ph:_____

Procurement Unit

Name:_____ Ph:_____

Compensation & Claims Unit (Insurance)

Name:_____ Ph:_____

Cost Unit

Name:_____ Ph:_____

Public Protection Supervisor

Name:_____ Ph:_____

On-Site Supervisor

Name:_____ Ph:_____

Site Safety	Control	Containment	Other
_____	_____	_____	_____

Air Monitor Team Lead	Roadblock Team Lead	Rover Team Lead	Telephoner Team Lead	Reception Centre Rep.
_____	_____	_____	_____	_____

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SECTION 1: INITIAL RESPONSE

Resources Summary:

Resource(s)	Time Called	ETA	Arrival	Notes (Location/Assignment/Status)
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	

Internal and External Notifications:

Agency / Person(s)	Time Called	Notes

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A5 - AIR MONITORING LOG

Date:		Prepared By:						Responder Position:		
								Wind Conditions		
Time (24 Hrs)	Location of Samples	H_2S (ppm)	LEL (%)	O_2 (%)	SO_2 (ppm)	Other	TEMP (°C/°F)	Direction (FROM) (i.e. From the NW to the SE)	Speed (km/hr or mph)	Comments

A5 - AIR MONITORING LOG

Time (24 Hrs)	Location of Samples	H$_2$S (ppm)	LEL (%)	O$_2$ (%)	SO$_2$ (ppm)	Other	TEMP (°C/°F)	Wind Conditions*		Comments
								Direction (FROM) (ie. From the NW to the SE)	Speed (km/hr or mph)	

STEP 5 – PLAN BRIEFING / COMPLETION

UPDATE BRIEFING AGENDA

Purpose
Provide critical updates regarding the incident, status of operations and planned activities. This feedback is critical to provide situational awareness, key information status and operational support. This information allows for the IMT to adjust their current objectives and response strategies. The incident briefing will be used for each operational period.

When
- Based on the update cycle as determined by the Incident Commander or as required
- Meeting should include the entire IMT
- Duration approx. 15-20 min

Facilitator
- Planning Section

Ground Rules
- Ensure no distraction during briefing
- Phones on vibrate / silent
- Attendees are focused and no side conversations
- Stick to the agenda

Agenda
1. Provide update on the current incident situation (videos, pictures, maps, etc.)
2. Weather update (current and forecast)
3. Review action items (ICS 233) status/open/closed
4. Update and support required from all Command and General Staff (Updates only, discussion to be taken offline)
5. Questions or clarifications from the team
6. Review ICS 201 (Update if required)
7. Incident Commander to provide closing comments
8. Communicate briefing cycle

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SECTION 2: ROLES AND RESPONSIBILITIES

ICS FORM 207a – Incident Management Team (IMT) Organization Chart

Incident Commander
Name:_____ Ph:_____

Incident Name:_____

Date:_____ Time:_____

Operational Period:_____

Deputy Incident Commander
Name:_____ Ph:_____

Information Officer
Name:_____ Ph:_____

ICS Process Advisor
Name:_____ Ph:_____

Scribe
Name:_____ Ph:_____

Safety Officer
Name:_____ Ph:_____

Liaison Officer
Name:_____ Ph:_____

Operations Section Chief
Name:_____ Ph:_____

Planning Section Chief
Name:_____ Ph:_____

Logistics Section Chief
Name:_____ Ph:_____

Finance & Admin Section Chief
Name:_____ Ph:_____

Staging Area Manager
Name:_____ Ph:_____

Documentation Unit
Name:_____ Ph:_____

Service Branch Director
Name:_____ Ph:_____

Support Branch Director
Name:_____ Ph:_____

Time Unit
Name:_____ Ph:_____

Situation Unit
Name:_____ Ph:_____

Communications Unit
Name:_____ Ph:_____

Supply Unit
Name:_____ Ph:_____

Procurement Unit
Name:_____ Ph:_____

Resources Unit
Name:_____ Ph:_____

Medical Unit
Name:_____ Ph:_____

Facilities Unit
Name:_____ Ph:_____

Compensation & Claims Unit (Insuranc
Name:_____ Ph:_____

Demobilization Unit
Name:_____ Ph:_____

Food Unit
Name:_____ Ph:_____

Ground Support Unit
Name:_____ Ph:_____

Cost Unit
Name:_____ Ph:_____

Technical Specialist(s)
Name:_____ Ph:_____

Public Protection Supervisor
Name:_____ Ph:_____

On-Site Supervisor
Name:_____ Ph:_____

Site Safety	Control	Containment	Other

Air Monitor Team Lead	Roadblock Team Lead	Rover Team Lead	Telephoner Team Lead	Reception Centre Rep

cenovus ENERGY

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KEY RESPONSE PERSONNEL

The following individuals are *likely* to fill the key response roles identified:

COMMAND	Incident Commander	Director Manager Area Superintendent Area Foreman / Supervisor
ON-SITE	**On-Site Supervisor**	Lead Operators
	Trained in Ignition (H$_2$S & HVP)	Lead Operator Well site / On-Site Supervisor Area Foreman / Superintendent
PUBLIC SAFETY	**Public Protection Supervisor**	Area Foreman/ Supervisor Area Superintendent Lead / Senior Operator
	Air Monitors / Roadblock / Rovers	Area Operators
	Telephoners	Available Staff
	Reception Centre Representative	Area Operators
CALGARY INCIDENT SUPPORT TEAM	**Director**	Corporate Staff
	Deputy Director	
	Safety	
	Communications	
	Human Resources	
	Legal	
	Operations	
	Planning	

Please refer to the SECTION 8: AREA SPECIFIC INFORMATION for the full list of personnel and their contact information.

GENERAL SAFETY EQUIPMENT AND RESOURCE LISTS

Operator, Truck & Other Safety Equipment
Each operator is required to drive a suitable vehicle (4x4 truck) for their service areas and carry the following equipment at minimum: ABC type fire extinguisher, roadside triangles or flares, booster cables, compact shovel, and first aid kit.

Refer to SECTION 8: AREA SPECIFIC INFORMATION for further details on specific air monitoring equipment, back-up communication methods, ignition and roadblock kit contents as well as their locations, specialty fire-fighting equipment and/or service companies and their contact information for if the aforementioned equipment is not available.

COMMAND CENTRE INTEGRATION
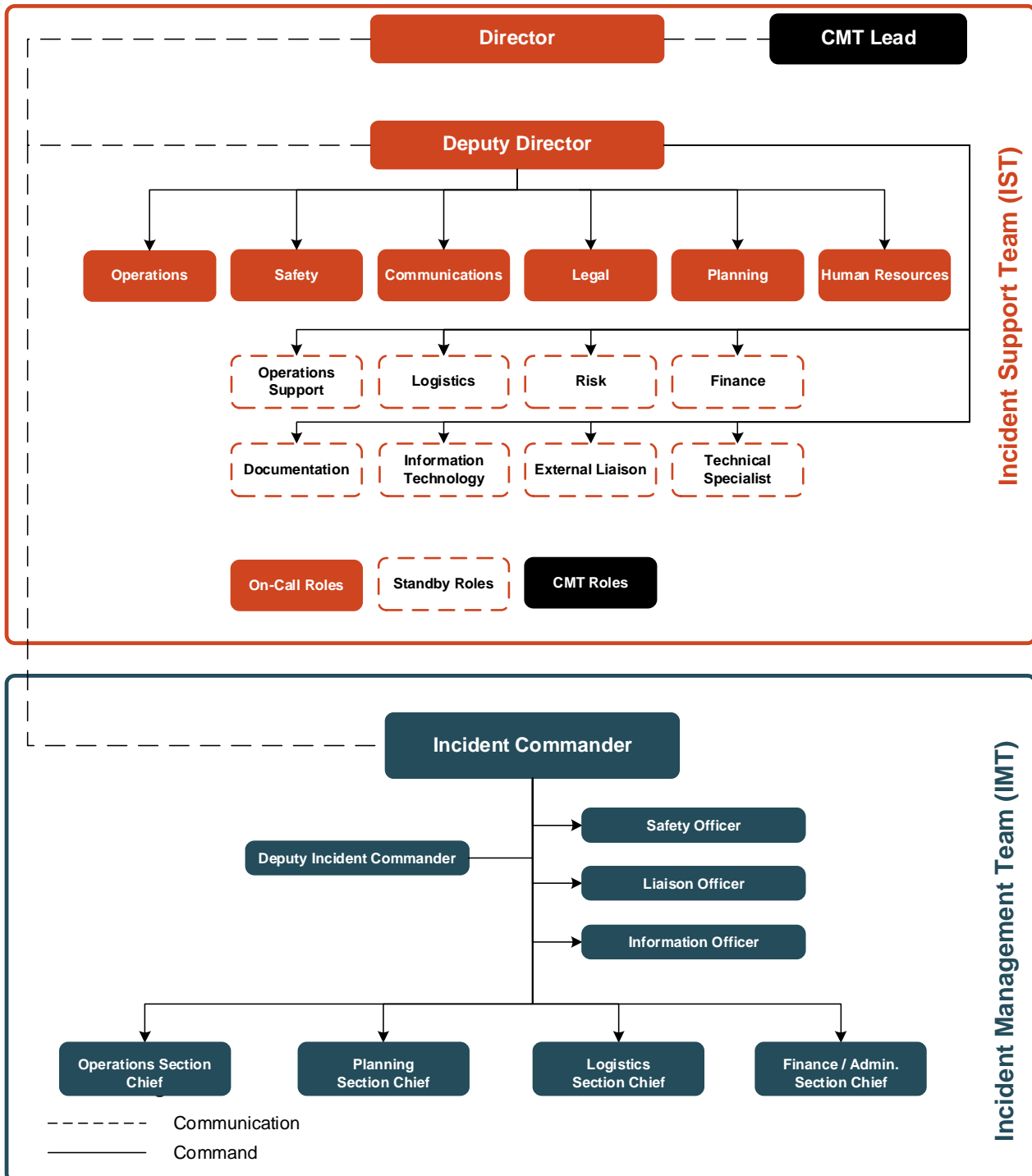
COMMAND STAFF ROLES

INCIDENT COMMANDER	DEPUTY INCIDENT COMMANDER	INFORMATION OFFICER	LIAISON OFFICER	SAFETY OFFICER
The **Incident Commander** is in charge of overall management of the incident and must be fully qualified to manage the incident. As incidents grow in size or complexity, a more highly qualified **Incident Commander** may be assigned by the company. The highest ranking authority arriving at the site of the incident (first on-scene) becomes the **Incident Commander** and establishes command and control. The first on-scene will remain the **Incident Commander** until there is formal transfer of command to a more senior company employee and / or qualified personnel.	The **Deputy Incident Commander** may assume responsibility for a specific portion of the primary position, work as relief, or be assigned other tasks. This person should always be as qualified to make decisions and manage the incident as the **Incident Commander**.	The **Information Officer** is responsible for developing and releasing information about the incident to the news media, to incident personnel and to other appropriate agencies and organizations. The primary IO is filled by the Incident Support Team (Communications function).	The **Liaison Officer** is responsible for notifying government agencies and is the contact for agency representatives assigned to the incident by assisting or cooperating agencies.	The **Safety Officer** develops and recommends measures for assuring personnel safety, and assesses and / or anticipates hazardous and unsafe situations.

INCIDENT COMMANDER

INITIAL RESPONSE - *Refer to the 5 Step Initial Response Guide in SECTION 1: INITIAL RESPONSE*

STEP 1: INITIAL ACTIONS
- ❑ Ensure that the First On-Scene Strategy (7 Steps) is completed.
- ❑ Identify and communicate that life safety is the highest priority.
- ❑ Assign On-Site Supervisor.
- ❑ Assess the current situation and begin initial site size-up.
- ❑ Conduct the Initial Hazard Identification.
- ❑ Determine what are the immediate resource requirements.
- ❑ Ensure there is a focus on Incident Stabilization.

STEP 2: NOTIFICATIONS
- ❑ Obtain and complete ICS 209 form.
- ❑ Determine Level of Emergency using the applicable provincial incident assessment matrix.
- ❑ Activate and establish Incident Management Team (IMT), if required.
- ❑ Determine and complete immediate public protection measures.
- ❑ Ensure that all applicable internal and external notifications are completed.
- ❑ Assess the immediate resource requirements and assign accordingly.
- ❑ Ensure that life safety actions are being followed through.
- ❑ Conduct initial IMT briefing.

STEP 3: RESPONSE AND ASSESSMENT
- ❑ Communicate the incident priorities to the On-Site Supervisor.
- ❑ When appropriate transfer command from the On-Site Supervisor to the Incident Commander.
- ❑ Determine and clarify any immediate needs from On-Site Supervisor and ensure they are addressed.
- ❑ Assess all response actions required and adjust if necessary.
- ❑ When the On-Site Command Post is established, ensure that change of command is communicated clearly.
- ❑ Ensure that all relevant events are documented.

STEP 4: PLAN DEVELOPMENT
- ❑ Complete ICS 201 form and must include Incident Commander endorsement.
- ❑ Communicate contents of ICS 201 to all applicable response organization.
- ❑ Assess the incident and expand response organization as required.
- ❑ Complete briefing schedule.
- ❑ Confirm that all applicable communication to external stakeholders, including regulatory agencies, have been completed.
- ❑ Determine status of the incident and adjust operational periods as required.

STEP 5: PLAN BRIEFING / COMPLETION
- ❑ Conduct situational update briefing to all applicable responders (Planning Section Chief to facilitate).
- ❑ Review and update the ICS 201 form as needed.
- ❑ Ensure that any updated objectives are communicated and executed.
- ❑ Continue execution and re-evaluation process until incident stand down; new operational period or transition to proactive phase.

IMT PROACTIVE PHASE - *Refer to the IMT Proactive Phase Guide in SECTION 2: IMT PROACTIVE PHASE*
- ❑ Establish a method to track responders and resources to ensure they are accounted for at all times.
- ❑ Monitor implementation of IAP and revise as the situation dictates. Prepare for next operational period.
- ❑ Support the **Operations Section Chief** in the preparation of an incident tactical and containment action plan.
- ❑ Ensure each section chief has adequate staff, is not violating span of control and clearly understands the roles and responsibilities.
- ❑ Conduct frequent Command Staff and General Staff meetings and regularly update the Calgary Emergency Response Team.
- ❑ If transfer of command occurs, an incident status briefing must take place. Provide all documentation and review situation status, objectives and priorities, current organization and resources, facilities, communications plan, concerns and introductions to staff.
- ❑ As the emergency is brought under control, the decision to downgrade the level and/or stand down the emergency will be based on air monitoring readings in consultation with the **Incident Commander** and the applicable government regulator.
- ❑ The **Demobilization Unit** will develop and implement objectives/strategies for demobilization.

ADDITIONAL FORMS TO USE:
- ❑ ICS Form 201

DEPUTY INCIDENT COMMANDER

- ❑ If no scribe has been assigned to the **Incident Commander**, support the **Incident Commander** by documenting details of the emergency, focusing on activities and decisions made.
- ❑ Record, update and maintain a chronological summary of the incident including:
  - ❑ Names of personnel in each assigned position and their location
  - ❑ Tactical and containment measures
  - ❑ Environmental monitoring information
  - ❑ Injuries / deaths / missing persons
  - ❑ Phone calls
  - ❑ Actions and decisions
  - ❑ Status of the public protection actions
- ❑ Manage the flow of traffic to and communication with the **Incident Commander** so that he can focus on managing the incident.
- ❑ Conduct status update meetings.
- ❑ Provide status to head office.
- ❑ Deal with some day-to-day decision making.
- ❑ Assume duties of the **Incident Commander**, if required.
- ❑ Maintain communication with the **Incident Commander**.

> **IMPORTANT**
>
> **Prior** to beginning any activities, each person in a role must:
> - ❑ Obtain a completed ICS 201 Incident Briefing and ICS 207a Incident Organization Chart from the **Incident Commander**.
>
> **Throughout** the duration of the incident, each person in a role must:
> - ❑ Chronologically **document all actions**, decisions, contacts and requests **on an ICS 214 Individual Activity Log**. Copies can be found in SECTION 6: FORMS.
>
> **After** the incident is over, each person in a role must:
> - ❑ Assist with post-incident activities.
>
> **ALL FORMS REFERENCED CAN BE FOUND IN SECTION 6: FORMS**

INFORMATION OFFICER

- ❑ Receive incident briefing from the **Incident Commander** before contacting external agencies.
- ❑ Prepare regular status updates that will be provided to internal company personnel to keep them apprised of the situation.
- ❑ Identify and document any media involvement that has already taken place
- ❑ If the media statement hasn't yet been prepared ensure that the generic media statement from the ERP is communicated and being used in the field.
- ❑ Assist head office with the preparation of a preliminary media statement if required using the Preliminary Media Statement form.
- ❑ Document all communications with the media using the Media Contact Log.
- ❑ Develop a detailed media strategy for the incident.
- ❑ Designate and prepare media briefing rooms away from the Incident Command Post.
- ❑ Organize tours and photo opportunities if required.
- ❑ Maintain communication with the **Incident Commander**.
- ❑ Media releases must be coordinated with applicable regulatory agency.
- ❑ If necessary, coordinate with and use broadcast media to notify residents in the hazard area.

Work with Communications / Media to develop a communications plan that includes establishing protocols for responders and all company personnel as required to ensure incident information remains confidential (i.e. restriction on cell phone usage for photography, social media, speaking to the media, etc.).

ADDITIONAL FORMS TO USE:
- ❑ Form C1, C2

LIAISON OFFICER

- ❑ Complete Regulatory First Call Communication Form (Alberta), or Emergency Incident Form (British Columbia).
- ❑ Refer to SECTION 5: EXTERNAL AGENCIES for the Government Notification Matrix. Notify as soon as possible and provide status updates at agreed upon intervals to:
  - ❑ Government regulator
  - ❑ Local authorities (counties, cities, towns, MDs, RDs, First Nations Reserves, etc.)
  - ❑ Health authority
  - ❑ Environment
  - ❑ Provincial emergency management organization
  - ❑ Other agencies
- ❑ Keep track of all government correspondence using the Government Agency Contact Log.
- ❑ Obtain cooperating and assisting agency information that includes: contact information, radio frequencies, cooperative agreements, equipment type, number of personnel, condition of equipment and personnel, agency constraints, etc.
- ❑ Conduct appropriate periodic briefings to keep agencies informed of planning actions.
- ❑ Coordinate with any government agency representatives attending the ICP or REOC.

Coordinate with mutual aid groups.

ADDITIONAL FORMS TO USE:
- ❑ Form A1, A2, A3, C3

SAFETY OFFICER

- ❑ Ensure the site is evacuated if unsafe.
- ❑ Initiate rescue plans if safe to do so.
- ❑ Review the objectives and the Incident Action Plan to identify and correct any potential occupational and health hazards.
- ❑ Ensure work / rest guidelines are followed.
- ❑ Continuously monitor workers for exposure to ensure they are wearing the required PPE.
- ❑ Take appropriate action to mitigate or eliminate unsafe conditions, operations, or hazards.
- ❑ Immediately stop any unsafe practices.
- ❑ Conduct a general inspection of the facilities, food services and sanitation services soon after they become operational and follow up on a periodic basis throughout the incident for compliance to all health and safety standards. Provide a report of deficiencies.
- ❑ Document both safe and unsafe acts, corrective actions taken on the scene, accidents or injuries, and ways to improve safety on future incidents.
- ❑ Investigate accidents that have occurred within the incident area.
- ❑ Identify "Hot Zone" and declare when responders may enter it.
- ❑ Ensure that responders inside the "Hot Zone" are accounted for and initiate search if required.
- ❑ Prepare a site-specific health and safety plan.

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All team members are located at the Incident Command Post (ICP), unless otherwise noted.

ESCALATE, DOWNGRADE OR STAND-DOWN LEVELS OF EMERGENCY: As the emergency is brought under control, the decision to downgrade the level and/or stand down the emergency will be based on air monitoring readings in consultation with the **Incident Commander** and the applicable government regulator. All affected persons and the media must be kept informed of the status of an emergency. **EMERGENCY FOLLOW-UP**: Once the emergency is over, the area residents, transients, industrial users, involved government agencies, and any individual notified will be informed of the stand-down by the **Information Officer** or **Public Protection Supervisor**.

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OPERATIONS SECTION CHIEF	ON-SITE SUPERVISOR	STAGING AREA MANAGER	SITE SAFETY	TACTICAL	CONTAINMENT
The **Operations Section Chief** is responsible for managing all tactical operations occurring at the location of the incident. The Operations Section determines required resources and assists the IC in developing objectives and strategies. The Incident Action Plan provides the necessary guidance. The need to expand the **Operations Section** is generally dictated by the number of tactical resources involved and is influenced by span of control considerations.	**On-Site Supervisor** is responsible for coordinating all tactical activities of **Tactical, Containment** and **Site Safety** at the scene of the emergency / incident.	The **Staging Area Manager** is responsible for managing all activities within a Staging Area.	**Site Safety** is responsible for responder safety and safety advice at all times at the scene of the emergency / incident.	**Tactical** is responsible for implementing measures designed to bring the incident under control or stop the incident.	**Containment** is responsible for implementing measures designed to reduce the impact of the incident on and prevent the spread of the incident to the surrounding areas.

OPERATIONS SECTION CHIEF	ON-SITE SUPERVISOR	STAGING AREA MANAGER	SITE SAFETY	TACTICAL	CONTAINMENT

❑ Identify and confirm communication links.
❑ Ensure the On-Site Command Post (OSCP) is established.
❑ Manage the following positions, as required: **On-Site Supervisor, Public Protection Supervisor.**
❑ In conjunction with the **Incident Commander**, the **Planning Section Chief**, and the **Public Protection Supervisor**, develop and implement an Incident Action Plan (IAP)
❑ Ensure responder safety at all times.
❑ Oversee tactical / containment procedures; ensure the hazard is isolated.
❑ Determine the current and potential environmental impact of product released, response activities, or waste disposal.
❑ Ensure that all environmental laws and regulations are complied with during emergency response operations.
❑ Provide technical advice to **Incident Commander** to determine public protection measures.
❑ Assess the requirements for on-scene safety personnel, equipment, and other contract services. Coordinate with **Logistics** to request resources to support tactical operations.
❑ Assist the **On-Site Supervisor** in determining whether ignition is appropriate. If at all possible, input is to be obtained from the **Incident Commander**, the **Director** and the applicable government regulator.
❑ Maintain continuous communications with the **Incident Commander**.
	❑ Ensure all personnel are accounted for. Release nonessential personnel from the site. Confirm the life safety of all responders at all times.
	❑ Oversee and maintain control of all on-scene personnel.
	❑ Establish On-Site Command Post (OSCP).
	❑ Obtain incident briefing and environmental impact information.
	❑ Coordinate activities of **Staging Area Manager, Site Safety, Tactical** and **Containment.**
	❑ Report air monitoring to **Incident Commander** (third party and regulatory).
	❑ Call police, fire and ambulance as needed.
	❑ Coordinate with ambulance / fire / RCMP / regulatory agencies / spill co-ops.
	❑ Conduct meetings with on-scene personnel to review action plans, communication and safety.
	❑ Request additional resources needed to implement on-scene response actions.
	❑ Supervise the execution of the on-scene response actions.
	❑ The **On-Site Supervisor** has the authority to ignite the release if ignition criteria are met. If at all possible, the **On-Site Supervisor** must consult with higher authority individuals within the company (ideally the **Operations Section Chief, Incident Commander, Director**, etc.) and the applicable government regulator before making the decision to ignite a release. Refer to SECTION 4: EMERGENCY RESPONSE PROCEDURES.
		❑ Establish a staging area near the incident site and outside of the EPZ. When choosing a site for the staging area ensure the following conditions are met:
		  ❑ Adequate sized site that is stable and level with suitable access roads
		  ❑ No entry problems such as narrow approach ways, gates, power lines, buried pipelines, etc.
		  ❑ Approval has been received from landowner
		  ❑ Reception of communication equipment is adequate
		❑ Erect staging area information and directional signs to the staging area, if required.
		❑ Flag the perimeter of the staging area.
		❑ Obtain an office trailer and emergency lighting, if required.
		❑ Coordinate traffic and maintain a log of personnel and services dispatched to, or arriving from the site of the emergency. Communicate this information to the **Logistics Section Chief**.
		❑ Respond to **Operations Section Chief** or **Incident Commander** requests for resources.
		❑ Confirm all workers have required training before they are dispatched to the incident.
		❑ Maintain and provide status to the **Planning Section** of all resources in Staging Area.
		❑ Demobilize or move Staging Area as required.
			❑ Assess hazards & potential risks e.g. fire/explosion, toxicity, oxygen deficiency, ignition sources, access/egress.
			❑ Ensure responder safety at all times.
			❑ Ensure that on-scene personnel are taking appropriate safety actions: PPE, SCBA / SABA, Safe Work Procedures, proper grounding / bonding procedures, work in teams, etc.
			❑ Ensure workers that show signs of stress, fatigue, and other symptoms are demobilized and sent for treatment if necessary.
			❑ Maintain records of all injuries and on-scene medical treatments.
			❑ Conduct responder safety orientations.
			❑ Monitor activities and conduct a head count on a regular basis.
			❑ Continually evaluate risks and stop unsafe activities immediately.
			❑ Recommend alternatives for activities that are considered to be unsafe.
				❑ Assist with the development of tactical procedures.
				❑ Identify immediate response tactics (i.e. offensive / defensive response tactics). Only when safety is assured, take immediate operational actions to bring the incident under control (i.e. shut down, isolate, de-pressure, etc.).
				❑ Provide or seek technical / engineering advice around all tactical-related issues.
				❑ Inform **Operations Section Chief** of any interactions with regulatory agencies or environmental personnel.
					❑ Assist with the development of containment procedures.
					❑ Identify immediate response tactics (i.e. offensive / defensive response tactics). Only when safety is assured, take actions to contain the incident so as to prevent the incident from spreading offsite and to reduce the impact on the public, sensitive terrain, watercourses, etc.
					❑ Provide or seek technical / engineering advice around all containment-related issues.
					❑ Secure the scene and restrict access to essential and authorized personnel only.
					❑ Inform **Operations Section Chief** of any interactions with regulatory agencies or environmental personnel.
					❑ Coordinate oil spill cooperative activities (booms, dams, etc.).

IMPORTANT

Prior to beginning any activities, each person in a role must:

❑ Obtain a completed ICS 201 Incident Briefing and ICS 207a Incident Organization Chart from the **Incident Commander**.

Throughout the duration of the incident, each person in a role must:

❑ Chronologically **document all actions**, decisions, contacts and requests **on an ICS 214 Individual Activity Log**. Copies can be found in SECTION 6: FORMS.

After the incident is over, each person in a role must:

❑ Assist with post-incident activities.

ALL FORMS REFERENCED CAN BE FOUND IN SECTION 6: FORMS

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| Located at the Incident Command Post (ICP) | Located at the On-Site Command Post (OSCP) | Located at the Staging Area | Located at the On-Site Command Post (OSCP) | Located at the On-Site Command Post (OSCP) | Located at the On-Site Command Post (OSCP) |

ESCALATE, DOWNGRADE OR STAND-DOWN LEVELS OF EMERGENCY: As the emergency is brought under control, the decision to downgrade the level and/or stand down the emergency will be based on air monitoring readings in consultation with the **Incident Commander** and the applicable government regulator. All affected persons and the media must be kept informed of the status of an emergency. **EMERGENCY FOLLOW-UP**: Once the emergency is over, the area residents, transients, industrial users, involved government agencies, and any individual notified will be informed of the stand-down by the **Information Officer** or **Public Protection Supervisor**.

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PLANNING SECTION CHIEF	DOCUMENTATION UNIT	TECHNICAL SPECIALISTS UNIT	SITUATION UNIT	RESOURCES UNIT	DEMOBILIZATION UNIT
The **Planning Section Chief** is responsible for providing planning and status services for the incident. Under the direction of the **Planning Section Chief**, the Planning Section collects situation and resources status information, evaluates it, and processes the information for use in developing action plans. Dissemination of information can be in the form of the Incident Action Plan, formal briefings, or through map and status board displays.	The **Documentation Unit** is responsible for the maintenance of accurate, up-to-date incident files. Duplication services will also be provided by the **Documentation Unit**.	Certain incidents or events may require the use of **Technical Specialists** who have specialized knowledge and expertise. **Technical Specialists** may function within the Planning Section, or be assigned wherever their services are required.	The collection, processing, and organization of all incident information. The **Situation Unit** may prepare future projections of incident growth, maps, and intelligence information.	The **Resources Unit** is responsible for maintaining the status of all assigned resources at an incident.	The **Demobilization Unit** is responsible for developing the Incident Demobilization Plan.

PLANNING SECTION CHIEF	DOCUMENTATION UNIT	TECHNICAL SPECIALISTS UNIT	SITUATION UNIT	RESOURCES UNIT	DEMOBILIZATION UNIT

❑ Identify and confirm communication links.
❑ Assign personnel to assume the following positions, as required: **Documentation Unit, Technical, Situation, Resources**, and **Demobilization**.
❑ Assist with setup of the Incident Command Post.
❑ Review the details of the incident and support the **Incident Commander** with the development of a preliminary response strategy.
❑ Identify the need for technical specialists.
❑ Collect and analyze information on the current situation, prepare situation displays and situation summaries, and develop maps and projections.
❑ Establish special information collection activities as necessary, e.g., weather, environmental, toxics, etc.
❑ Provide technical support to the **Incident Commander** and work with **Incident Commander** to develop the Incident Action Plan (IAP).
❑ Review any changes to the Incident Action Plan (IAP) to ensure consistency.
❑ Assemble information on alternative strategies.
❑ Coordinate with **Logistics** to determine current available resources and resource availability for future plans of action.
❑ Establish reporting schedules.
❑ Conduct long-range and / or contingency planning.
❑ Develop plans for demobilization.
❑ Maintain continuous communications with the **Incident Commander.**
	❑ Document the Incident Action Plan (IAP) strategies using the ICS 201 Incident Briefing Form provided in SECTION 1: INITIAL RESPONSE or SECTION 6: FORMS and disseminate them to all key responders.
	  ❑ Be prepared to document the **Incident Commander's** status update meetings using whiteboards, PC or Action Logs.
	❑ Ensure consistent documentation.
	❑ Ensure timely dissemination of all documentation.
	❑ Participate in planning meetings, capturing key information, decisions made, commitments and status.
	❑ Collect documentation from response team members and maintain a consistent system for organizing the data.
	  ❑ Records must be held for a minimum of 5 years as it may be requested by the regulatory agency at any point during that time.
	❑ Establish duplication services.
	❑ Incident files will be stored for legal, analytical, and historical purposes.
	❑ Post and maintain all Emergency Status Boards and other laminated charts in the Incident Command Post.
	
	SCRIBE
	
	The **Scribe** is responsible for maintaining a timeline of key events during an incident. This position also documents actions and keeps track of any follow-up items that well need to be addressed.
	
	❑ Listen to the calls and discussions and to keep track of context and actions so that discussions can be maintained without interruption.
	❑ Keeps detailed records of:
	  ❑ Action items for the IC / ICP
	  ❑ Action Items given to others
	  ❑ Unanswered questions or other issues that need to be addressed / followed up on
	  ❑ Meeting notes (minutes) / phone call notes
		❑ Determine what technical support is available now and in the future.
		❑ Work with **Logistics** to determine the key locations for the required technical support and appropriate time to acquire.
		❑ Gather data (weather, etc.) and forecast changes considering incident potential and develop new or modified response strategies.
		❑ As required, obtain plume dispersion modelling.
			❑ Collect and evaluate information to establish an accurate picture of the situation and creates a detailed summary. Use this information to create maps and projections.
			❑ Prepare, post, or disseminate resources and situation status information as required, including special requests.
			❑ Provide photographic services and maps if required.
				❑ Monitor the status and location of all incident resources / personnel responding to the incident.
				❑ Oversee the check-in of all resources.
				❑ Maintenance of a master list of all resources, e.g., key supervisory personnel, primary and support resources, etc.
				❑ May assist in preparing the written Incident Action Plan.
				❑ Maintain and post the current status and location of all resources.
					❑ Prepare plan for the demobilization of all personnel and equipment upon resolution of the incident.
					❑ Ensure resources in available status are still required. Identify surplus resources and probably release time.
					❑ Debrief non-required resources and dismiss resources being demobilized.
					❑ Coordinate demobilization with agency representatives.
					❑ Develop incident check-out function for all units.
					❑ Ensure the demobilization process is organized, safe and cost effective.

IMPORTANT

Prior to beginning any activities, each person in a role must:

❑ Obtain a completed ICS 201 Incident Briefing and ICS 207a Incident Organization Chart from the **Incident Commander**.

Throughout the duration of the incident, each person in a role must:

❑ Chronologically **document all actions**, decisions, contacts and requests **on an ICS 214 Individual Activity Log**. Copies can be found in SECTION 6: FORMS.

After the incident is over, each person in a role must:

❑ Assist with post-incident activities.

ALL FORMS REFERENCED CAN BE FOUND IN SECTION 6: FORMS

ADDITIONAL FORMS TO USE:	ADDITIONAL FORMS TO USE:
❑ Form A4	❑ ICS Form 201

All team members are located at the INCIDENT COMMAND POST (ICP), unless otherwise noted.

February 2022

ESCALATE, DOWNGRADE OR STAND-DOWN LEVELS OF EMERGENCY: As the emergency is brought under onl, the decision to downgrade the level and/or stand down the emergency will be based on air monitoring readings in consultation with the **Incident Commander** and the applicable government regulator. All affected persons and the media must be kept informed of the status of an emergency. **EMERGENCY FOLLOW-UP**: Once the emergency is over, the area residents, transients, industrial users, involved government agencies, and any individual notified will be informed of the stand-down by the **Information Officer** or **Public Protection Supervisor**.

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LOGISTICS SECTION CHIEF	COMMUNICATIONS UNIT	MEDICAL UNIT	FOOD UNIT	SUPPLY UNIT	FACILITIES UNIT	GROUND SUPPORT UNIT
All incident support needs are provided by the Logistics Section. The section is responsible for providing: facilities, transportation, communications, supplies, equipment maintenance and fuelling, food services, medical services, and ordering resources. Six units may be established within the Logistics Section and the **Logistics Section Chief** will determine the need to activate or deactivate a unit. If a unit is not activated, responsibility for that unit's duties will remain with the **Logistics Section Chief**.	The **Communications Unit** is responsible for developing plans for the use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Centre, if established; and the distribution and maintenance of communications equipment.	The **Medical Unit** is responsible for all medical services for incident assigned personnel. The unit will develop procedures for managing major medical emergencies; and provide medical aid. *Medical assistance to the public or victims of the emergency is an operational function.*	Responsible for supplying the food needs for the entire incident, including all remote locations, (e.g., Camps, Staging Areas), as well as providing food for personnel unable to leave tactical field assignments. The **Food Unit** interacts with the **Facilities Unit** for location of fixed-feeding site; the **Supply Unit** for food ordering; and the **Ground Support Unit** for transporting food.	The **Supply Unit** is responsible for ordering, receiving, processing, and storing all incident-related resources.	The **Facilities Unit** is responsible for set-up, maintenance, and demobilization of all incident support facilities except staging areas. The **Facilities Unit** will also provide security services to the incident as needed.	The Ground Support Unit is primarily responsible for the maintenance, services, and fuelling of all mobile equipment and vehicles, with the exception of aviation resources. The unit also has responsibility for the ground transportation of personnel, supplies, and equipment.
❑ Identify and confirm communication links. ❑ Assign personnel as required. ❑ List and obtain all immediate resources requested by the **Incident Commander** or **Operations Section Chief**. ❑ Identify anticipated and known incident service and support requirements. ❑ Maintain continuous communications with the **Incident Commander.** ❑ Develop plans to move required resources to site. ❑ Confirm spending authorities with the Finance / Admin Section. ❑ Mobilize resources. ❑ Move required resources to site. ❑ Coordinate spending with the **Finance / Admin Section Chief.**	❑ Establish the communications plan for the use of incident communications equipment and facilities. ❑ Install, test, distribute, and maintain all communications equipment. ❑ Advise on communications capabilities and limitations. ❑ Establish telephone, communication links, and public address systems. ❑ Establish clear and widespread communication throughout the incident.	❑ Arrange and provide response personnel with first aid and minor medical services. ❑ Develop Incident Medical Plan. ❑ Develop procedures for handling serious injuries of responder personnel. ❑ Provide medical aid to personnel. ❑ Assist the Finance / Administration Section with processing injury-related claims. *Provision of medical assistance to the public or victims of the emergency is an operational function and would be done by the Operations Section and not by the Logistics Section Medical Unit. If there is a requirement for victims of an incident the local public ambulance service is most often utilized.*	❑ Responsible for supplying the food needs for the entire incident, including all remote locations (e.g., Camps, Staging Areas), as well as providing food for personnel unable to leave tactical field assignments. ❑ Works with the Planning Section - **Resources Unit** to anticipate the numbers of personnel to be fed and develop plans for supplying food to all incident areas. ❑ Interacts with the **Facilities Unit** for location of fixed-feeding site; the **Supply Unit** for food ordering; and the **Ground** and **Air Support Units** for transporting food. ❑ Obtain necessary equipment and supplies and establish cooking facilities. ❑ Order sufficient food and potable water from the **Supply Unit**. ❑ Maintain inventory of food and water. ❑ Maintain food services areas, ensuring that all appropriate health and safety measures and being followed. ❑ Supervise caterers, cooks, and other **Food Unit** personnel as appropriate.	❑ Order, receive, distribute and track all incident equipment and supplies. ❑ Ordered all off-incident resources including: tactical and support resources (including personnel), all expendable and non-expendable support supplies. ❑ Management of tool operations, including the storage, disbursement, and service of all tools and portable non-expendable equipment.	❑ Set-up, maintain, and demobilize incident support facilities with the exception of staging areas. ❑ Facilities may include: Incident Command Post, Incident Base, Camps, and other facilities within the incident area to be used for feeding, sleeping and sanitation services. ❑ Prepare layout of facilities; inform appropriate unit leaders. ❑ Will provide security services to the incident as needed. ❑ Contact local law enforcement agencies as required. ❑ Investigate and document all complaints and suspicious occurrences. ❑ Ensure strict compliance with applicable safety regulations. ❑ Provide facility maintenance services, e.g., sanitation, lighting, etc. ❑ Demobilize base and camp facilities.	❑ Responsible for the maintenance, service and fuelling of all mobile equipment and vehicles, with the exception of aviation resources. ❑ Coordinates the transportation of all personnel, supplies, and equipment. ❑ Update the **Resources Unit** with the status (location and capability) of transportation vehicles. ❑ Develop the Incident Traffic Plan as required.

IMPORTANT

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Throughout the duration of the incident, each person in a role must:

❑ Chronologically **document all actions**, decisions, contacts and requests **on an ICS 214 Individual Activity Log**. Copies can be found in SECTION 6: FORMS.

After the incident is over, each person in a role must:

❑ Assist with post-incident activities.

ALL FORMS REFERENCED CAN BE FOUND IN SECTION 6: FORMS

All team members are located at the INCIDENT COMMAND POST (ICP), unless otherwise noted. February 2022

ESCALATE, DOWNGRADE OR STAND-DOWN LEVELS OF EMERGENCY: As the emergency is brought under control, the decision to downgrade the level and/or stand down the emergency will be based on air monitoring readings in consultation with the **Incident Commander** and the applicable government regulator. All affected persons and the media must be kept informed of the status of an emergency. **EMERGENCY FOLLOW-UP**: Once the emergency is over, the area residents, transients, industrial users, involved government agencies, and any individual notified will be informed of the stand-down by the **Information Officer** or **Public Protection Supervisor**.

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FINANCE / ADMIN SECTION CHIEF	TIME UNIT	PROCUREMENT UNIT	COMPENSATION & CLAIMS UNIT	COST UNIT
The **Finance / Administration Section Chief** is responsible for managing all financial aspects of an incident. The **Finance / Administration Section Chief** will determine the need to activate or deactivate a unit.	The **Time Unit** is responsible for ensuring the accurate recording of daily personnel time, compliance with specific agency time recording policies and managing commissary operations if established at the incident.	All financial matters pertaining to vendor contracts, leases and fiscal agreements are managed by the **Procurement Unit**. The unit is also responsible for maintaining equipment time records. The **Procurement Unit** establishes local sources for equipment and supplies; manages all equipment rental agreements; and processes all rental and supply fiscal document billing invoices.	This unit oversees the completion of all forms required by workers' compensation and local agencies. A file of injuries and illnesses associated with the incident will also be maintained and all witness statement will be obtained in writing. Close coordination with the medical Unit is essential. The **Compensation & Claims Unit** is also responsible for investigating all claims involving property associated with or involved in the incident.	The **Cost Unit** provides all incident cost analysis. It ensures the proper identification of all equipment and personnel requiring payment; records all cost data; analyzes and prepares estimates of incident costs; and maintains accurate records of incident costs.
❑ Identify and confirm communication links. ❑ Assign personnel to assume the following positions, as required: **Time Unit, Procurement Unit, Compensation & Claims Unit,** and **Cost Unit.** ❑ Review legal issues with the **Incident Commander**, IST-**Director**, and IST-Legal function. ❑ Maintain continuous communications with the **Incident Commander**. ❑ Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up. ❑ Manage all financial aspects of an incident.	❑ Record daily personnel time, ensure compliance with specific agency time recording policies, and manage commissary operations if established at the incident. ❑ Submit cost estimate data forms to **Cost Unit** as required. ❑ Ensure that all records are current and complete prior to demobilization.	❑ Manage finances relating to vendor contracts, leases and fiscal agreements. ❑ Maintain equipment time records. ❑ Establish local sources for equipment and supplies. Coordinate with local jurisdiction on plans and supply sources. ❑ Manage all equipment rental agreements. Establish contracts and agreement with supply vendors. ❑ Processes all rental and supply fiscal document billing invoices. ❑ Prepare and authorize contracts and land use agreements, as needed.	❑ Handle all matters relating to compensation for injury or property damage due to the incident. ❑ Oversees the completion of all forms required by workers' compensation and local agencies. ❑ Maintain a file with all the injuries and illnesses associated with the incident. ❑ Obtain witness statements in writing. ❑ Investigate all claims involving property associated with or involved in the incident. ❑ Ensure the completion of a Resident Compensation Log for any out-of-pocket expenses incurred by evacuees. ❑ All claims must be submitted to the Finance and Legal departments for processing and disbursement of funds. ❑ If applicable, Finance and Legal will deal with insurers as well as any other extraneous circumstances (affected parties want more, etc.).	❑ Collect and evaluate cost data to establish an accurate picture of the incident costs. ❑ Create cost summaries, cost estimates, and cost saving recommendations. ❑ Prepare resources-use cost estimates for the Planning Section. ❑ Identify all equipment and personnel requiring payment.

IMPORTANT

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Throughout the duration of the incident, each person in a role must:

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After the incident is over, each person in a role must:

❑ Assist with post-incident activities.

ALL FORMS REFERENCED CAN BE FOUND IN SECTION 6: FORMS

ADDITIONAL FORMS TO USE:
❑ **Form B2**

Finance / Admin functions will be handled by EOC staff, unless otherwise noted.

February 2022

ESCALATE, DOWNGRADE OR STAND-DOWN LEVELS OF EMERGENCY: As the emergency is brought under control, the decision to downgrade the level and/or stand down the emergency will be based on air monitoring readings in consultation with the **Incident Commander** and the applicable government regulator. All affected persons and the media must be kept informed of the status of an emergency. **EMERGENCY FOLLOW-UP:** Once the emergency is over, the area residents, transients, industrial users, involved government agencies, and any individual notified will be informed of the stand-down by the **Information Officer** or **Public Protection Supervisor**.

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PUBLIC PROTECTION SUPERVISOR	AIR MONITORS	RECEPTION CENTRE REP	ROADBLOCKS	ROVERS	TELEPHONERS
The **Public Protection Supervisor** is responsible for the management, planning, consideration and implementation of external public protection activities for the duration of the incident.	**Air Monitoring** personnel are responsible for acquiring and providing air quality readings to the **Public Protection Supervisor.**	**Reception Centre Reps** are responsible for establishing reception centres, managing evacuee accommodation, communication and documentation for compensation purposes.	**Roadblock** personnel are responsible for maintaining assigned roadblock positions, air monitor readings and communication with transients.	**Rovers** travel to assigned locations to locate the public and personally provide public safety instructions and assistance as required.	**Telephoners** are responsible for the notification of impacted residences and businesses to provide public safety instructions.

PUBLIC PROTECTION SUPERVISOR

- ❑ Confirm communication links with the **Incident Commander** and **Operations Section Chief**.
- ❑ In conjunction with the **Incident Commander**: determine the size of the EPZ; identify the residents, businesses, industrial operators, and / or transients in the area; and determine the initial public protection measures to be taken. Refer to SECTION 4: EMERGENCY RESPONSE PROCEDURES for guidelines on evacuation / shelter, ignition, roadblocks, rovers, public concerns, etc. Additional information for **Air Monitors, Reception Centre Representative, Roadblocks, Rovers,** and **Telephoners** can be found in SECTION 2: ROLES & RESPONSIBILITIES.
- ❑ In conjunction with the **Incident Commander**, **Planning Section Chief**, and **Operations Section Chief**, develop and implement an Incident Action Plan (IAP).
- ❑ Review resident lists, area user lists, reception centres, and telephone numbers within the ERP.
- ❑ Coordinate with the Regional Emergency Operations Centre (REOC), if established.
- ❑ Assign personnel to assume the following positions as required: **Air Monitors, Reception Centre Representative, Roadblocks, Rovers,** and **Telephoners.**
  - ❑ The **Telephoners** must have sufficient personnel to accommodate the following ratios when contacting residents: 1 Telephoner to every 7 residences; and 1 Supervisor for every 10 Telephoners.
- ❑ Dispatch **Air Monitors** at a Level 1 emergency (hand-held and mobile).
  - ❑ Dispatch trained personnel with the appropriate hand-held gas monitors to record concentrations at the nearest unevacuated residences downwind of the incident site.
  - ❑ Mobilize third party mobile air monitoring units.
  - ❑ Maintain communication with the applicable government regulator and environment agency regarding air monitoring needs and activities.
- ❑ Consult with the **Operations Section Chief** to determine the need for evacuation / sheltering. This is based on air monitoring readings at the nearest downwind residence.
- ❑ Prioritize residents and area users in the EPZ to establish the order of evacuation. Coordinate evacuation or shelter of residents, area users, and transients (via **Telephoners** and **Rovers**).
  - ❑ Determine who needs to be notified and what script will be used: Early Notification / Voluntary Evacuation Message, Shelter-in-Place Phone Message, Evacuation Phone Message.
  - ❑ At a Level 1 Emergency it is required to notify any special needs residents and give them the option to evacuate.
  - ❑ If residences are evacuated, a reception centre must be established.
  - ❑ Determine and notify landowner / occupant(s) as soon as possible.
  - ❑ Ensure the schools / school buses are contacted to make arrangements for school age children (if applicable).
  - ❑ If a large number of people need to be evacuated (large industrial operations and/or public facilities) refer to the SECTION 8: AREA SPECIFIC INFORMATION SECTION (white tabs) for contacts to obtain charter buses or changes to the normal notification procedures.
- ❑ Send **Rovers** (if required) to identify human activity in the area which is not already identified within the ERP (drilling, pipeline construction, logging, hunting, farming, camping, fishing, etc.).
  - ❑ Prepare Evacuation Notices and provide copies to **Rovers**.
  - ❑ **Rovers** can be used to assist with notifications, assist with evacuating special needs residents, assist with air monitoring, etc.
- ❑ Determine the need for helicopters to identify human activity in the area.
- ❑ Determine the need for and location of **Roadblocks** to isolate and secure the area.
  - ❑ Ensure all **Roadblock** personnel are properly trained and have appropriate roadblock kits.
  - ❑ Ensure all CVE **Roadblock** personnel have the legal authority to restrict access to the area.
- ❑ Assess public impact outside of EPZ. See SECTION 5: EXTERNAL AGENCIES to determine what assistance local authorities can provide for public protection outside the EPZ.
- ❑ Regularly update the **Incident Commander**.
- ❑ Confirm communication links with: **Air Monitors, Reception Centre, Roadblocks, Rovers,** and **Telephoners.** Personnel should check in at scheduled intervals.
- ❑ Review and confirm evacuation of residents, area industrial users, transients, etc. from the area.
- ❑ Request that a Notice to Airmen (NOTAM) is issued to restrict the airspace above the EPZ.

AIR MONITORS

- ❑ Provide air monitoring readings to assist with decision making (evacuation / shelter / ignition).
- ❑ Obtain and check equipment and information (maps, forms, communications, reports, monitors, safety, and breathing equipment).
- ❑ Confirm communication links.
- ❑ Monitor closest downwind public location or residence.
- ❑ Monitor environment for adverse effects.
  - ❑ Record all readings on the Air Monitoring Log.
- ❑ Report all readings at established intervals to the **Public Protection Supervisor**.
- ❑ For your own safety, ensure **Public Protection Supervisor** is notified immediately if readings are approaching 10% LEL and / or 10 ppm H_2S.
- ❑ Prepare Mobile Monitoring Plan.

RECEPTION CENTRE REP

- ❑ Confirm reception centre is available for use.
- ❑ Establish reception centre. Refer to SECTION 2: ROLES & RESPONSIBILITIES.
- ❑ Confirm communication links.
- ❑ Receive evacuees and maintain a Reception Centre Registration Log.
- ❑ Maintain a School Children Registration Record, if required.
- ❑ Arrange for food and accommodations for the evacuees.
- ❑ Provide evacuees with a place to request counselling services, if required.
- ❑ Record and follow up on all evacuees who choose to make their own accommodation arrangements.
- ❑ Arrange for temporary care of livestock (if possible) and the security of evacuated property.
- ❑ Establish and oversee compensation administration activities at the reception centre.
- ❑ Reimburse evacuees for their immediate out-of-pocket expenses and log details on a Resident Compensation Log.
- ❑ Where possible, provide evacuees with information regarding their property, livestock, and the incident.
- ❑ Forward all media and incident inquiries to the **Information Officer**.
- ❑ Report all names of evacuees who have registered at the reception centre to the **Public Protection Supervisor**.
- ❑ Address resident concerns and forward them to the **Public Protection Supervisor.**

IMPORTANT

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Throughout the duration of the incident, each person in a role must:

- ❑ Chronologically **document all actions**, decisions, contacts and requests **on an ICS 214 Individual Activity Log**. Copies can be found in SECTION 6: FORMS.

After the incident is over, each person in a role must:

- ❑ Assist with post-incident activities.

ALL FORMS REFERENCED CAN BE FOUND IN SECTION 6: FORMS

ROADBLOCKS

- ❑ In conjunction with the **Public Protection Supervisor** determine the need for and location of roadblocks.
- ❑ Pickup and check roadblock kits.
- ❑ Proceed to roadblock locations.
- ❑ Confirm communication links.
- ❑ Establish roadblocks to secure the EPZ.
- ❑ Follow the scripts and procedures in the ERP. Refer to either SECTION 2: ROLES & RESPONSIBILITIES or SECTION 6: FORMS.
- ❑ Monitor area for H_2S and / or LEL with personal monitors and document readings on the Air Monitoring Log.
- ❑ Report all H_2S and / or LEL reading changes / increases to the **Public Protection Supervisor**.
- ❑ For your own safety, ensure the **Public Protection Supervisor** is notified immediately if readings are approaching 10% LEL and / or 10 ppm H_2S.
- ❑ Record all incoming and outgoing traffic, personnel, and equipment on the Roadblock Log.
- ❑ Forward information given to you by people passing through your location to the **Public Protection Supervisor**.
- ❑ Maintain communication with the **Public Protection Supervisor**.
- ❑ Maintain roadblock locations. Do not leave until requested to do so by the **Public Protection Supervisor** or until relieved by other **Roadblock** personnel.

See SECTION 2: ROLES & RESPONSIBILITIES for a media script for **Roadblock** and **Rover** personnel.

ROVERS

- ❑ Confirm resident contact lists are available.
- ❑ Confirm communication links.
- ❑ Know safe routes in and out of the EPZ.
- ❑ Search for residents and transients in the Emergency Response and Planning Zones.
- ❑ Check all buildings including barns, shops, sheds, etc.
- ❑ Assist, as required, with the notification, evacuation or sheltering of persons within the EPZ. Record all contact with residents using the Resident Contact Log.
- ❑ Post Evacuation Notices for residents that are not at their residence.
- ❑ Follow the scripts and procedures in the ERP. Refer to SECTION 2: ROLES & RESPONSIBILITIES or SECTION 6: FORMS.
- ❑ Monitor area for H_2S and / or LEL with personal monitors and document readings on the Air Monitoring Log.
- ❑ Report all H_2S and / or LEL reading changes / increases to the **Public Protection Supervisor**.
- ❑ For your own safety, ensure the **Public Protection Supervisor** is notified immediately if readings are approaching 10% LEL or 10 ppm H_2S.
- ❑ Report any suspicious behaviour to the **Public Protection Supervisor** who will notify the police as required.
- ❑ Maintain communication with the **Public Protection Supervisor**.

See SECTION 2: ROLES & RESPONSIBILITIES for a media script for **Roadblock** and **Rover** personnel.

TELEPHONERS

- ❑ Confirm resident contact lists are available.
- ❑ Confirm communication links.
- ❑ In conjunction with the **Public Protection Supervisor**, determine who needs to be notified (residents, businesses, area users, etc.).
- ❑ Review with the **Public Protection Supervisor** which telephoner scripts to use: Early Notification / Voluntary Evacuation Message, Shelter-in-Place Phone Message, Evacuation Phone Message.
- ❑ Contact special needs residents at a Level 1 Emergency and provide them with the option to evacuate.
- ❑ Contact the other residents and area users in the EPZ and advise them to evacuate or shelter.
- ❑ Contact the schools / school buses to make arrangements for school age children (if applicable).
  - ❑ Advise that buses in the affected area leave immediately and that buses should not enter the area.
  - ❑ Request a school administrator for the reception centre to assist in managing the children and releasing them to their guardians.
- ❑ Document all resident interactions using the Resident Contact Log and report this information to the **Public Protection Supervisor**. Immediately advise the **Public Protection Supervisor** about unsuccessful contacts and any residents requiring assistance.

ADDITIONAL FORMS TO USE:	ADDITIONAL FORMS TO USE:	ADDITIONAL FORMS TO USE:	ADDITIONAL FORMS TO USE:	ADDITIONAL FORMS TO USE:	ADDITIONAL FORMS TO USE:
❑ **Form B5, B6, B7, B8**	❑ **Form A5**	❑ **Form B1, B2, B9**	❑ **Form A5, B4**	❑ **Form A5, B3, B5**	❑ **Form B3, B6, B8**

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| Located at the INCIDENT COMMAND POST (ICP) or the REGIONAL EMERGENCY OPERATIONS CENTRE (REOC). | Location will be ASSIGNED. | Location will be the RECEPTION CENTRE. | Location will be ASSIGNED. | Location will be ASSIGNED. | Location will be EMERGENCY OPERATIONS CENTRE (CALGARY) or REGIONAL EMERGENCY OPERATIONS CENTRE (REOC). |

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OVERVIEW

H_2S, SO_2, LEL or other toxic substance concentrations will be monitored continuously during the incident response. It is crucial that Air Monitors continuously update the Public Protection Supervisor with monitored results. If air monitoring readings show high levels of H_2S, SO_2, or LEL the Public Protection Supervisor may need to initiate evacuation / shelter of additional residences, change the location of the roadblocks, or ignite the release.

AIR MONITORING EQUIPMENT

Air monitoring equipment is used to:
- Track the plume.
- Determine if ignition criteria are met.
- Determine whether evacuation and / or shelter-in-place criteria have been met.
- Assist in determining when the emergency can be downgraded.
- Determine roadblock locations.
- Determine concentrations in areas being evacuated to ensure that evacuation is safe.

REGULATORY REQUIREMENTS

SOUR GAS RELEASE – MANNED OPERATIONS
- Critical Sour Wells & EPZ includes a portion of urban density development or urban centre:
  - Must be minimum of two mobile air monitors: one to monitor the boundary of the urban density development or urban centre and the other to track the plume.

The licensee must also:
- Ensure that one unit is in the area during drilling and / or completion, testing, and workover operations in potentially critical sour zones.
- Ensure that the other unit is dispatched if it is evident that well control measures are deteriorating and that a sour gas release is likely to occur.
- Prior to conducting operations in the sour zone, determine where the monitoring equipment is located and what the estimated travel time is to the well site.
- Critical Sour Wells whose EPZ does not include a portion of an urban density development or urban centre and for all noncritical sour wells:

The licensee must:
- Dispatch a mobile air quality monitoring unit(s) when it is evident that well control measures are deteriorating and that a sour gas release is likely to occur.
- Prior to conducting operations in the sour zone, determine where the monitoring equipment is located and what the estimated travel time is to the well site.

Downgrading Level of Emergency
- The decision to downgrade an incident will be based on the air monitoring results.

SOUR GAS RELEASE – UNMANNED OPERATIONS
- If notified of a release by an alarm or by a reported odour, the licensee must investigate the source of the release and send out Air Monitors upon confirmation of the release location.

Air quality monitoring occurs downwind, with priority being directed to the nearest unevacuated residence or area where people may be present.

The licensee is expected to provide monitored H_2S and SO_2 information on a regular basis throughout a sour gas emergency to the relevant government regulator, environmental agency, health authority, local authorities, and on request to the public.

HVP PRODUCT RELEASE
- Monitoring may occur downwind or upwind depending on how the plume is tracking, with priority being directed to the nearest unevacuated residence or areas where people may be present.
- The licensee is expected to provide monitored HVP product LEL information on a regular basis throughout the emergency to the relevant government regulator, environmental agency, health authority, local authorities, and on request to the public.

AIR MONITORS ROLES

- ❑ Obtain and check equipment and information (maps, forms, communications, reports, monitors, safety, and breathing equipment).
- ❑ Confirm communication links.
- ❑ Monitor closest downwind public location or residence.
- ❑ Monitor environment for adverse effects.
- ❑ Record all readings on the Air Monitoring Log provided. **FORM A5**
- ❑ Report all readings at established intervals to the Public Protection Supervisor.
- ❑ For your own safety, ensure the Public Protection Supervisor is notified immediately if readings are approaching the following levels: 10% LEL or 10 ppm H_2S.
- ❑ Prepare Mobile Monitoring Plan.
- ❑ Document activities using the ICS 214 Individual Activity Log. **FORM ICS 214**
- ❑ Assist with post-incident activities.
- ❑ Monitor H2S and LEL concentrations along the edge of the EPZ to determine if sheltering and/or evacuation criteria has been met beyond the EPZ.

TIPS

- ❑ Air monitors should be dispatched at a Level 1 Emergency.
- ❑ Ensure all equipment is operational and the appropriate documentation is available to verify testing and calibration requirements.
- ❑ Use the buddy system where possible.
- ❑ Breathing apparatus – be prepared to don apparatus quickly.
- ❑ Ensure all personnel have a personal gas monitor.
- ❑ Speed and direction of wind may vary, therefore, be prepared to track gas plume.
- ❑ Record all information:
  - Concentrations in ppm or ppb
  - Location and time of readings
  - Wind speed and direction

AIR MONITORING LOG—EXAMPLE **FORM A5**

TIME	LOCATION OF SAMPLES	H2S (ppm)	LEL (%)	O2 (%)	SO2 (ppm)	OTHER	TEMP(°C)	WIND CONDITIONS * FROM	WIND CONDITIONS * SPEED (km/hr)	COMMENTS
19:06	12-05-13-16 W5M	5	4		10		19	NW	12	Picked up 5 ppm reading upon entering lease access. Contacted control room at plant.
19:15	12-05-13-16 W5M	6	7		12		18	NW	11	H2S reading increased 1 ppm at the access point.
19:25	12-05-13-16 W5M	6	7		12		17	NW	11	No change in readings. Wind and temperature is down.

* Estimate meteorological conditions where accurate readings are not available.

CHOOSING A POSITION
1.

1. Using your map and the current wind conditions, travel downwind, with priority being directed to the nearest unevacuated residence or area where people may be present.

2. Confirm the location with the Public Protection Supervisor and make sure you have a safe route to the assigned location that does not cross the hazardous area.

RECORD INFORMATION
2.

Record information on the following forms located within this section:
- ❑ Air Monitoring Log **FORM A5**
- ❑ ICS 214 Individual Activity Log **FORM ICS 214**

REPORTING AND CONTACTS

Air Monitors report to the Public Protection Supervisor.

Name:_____
Phone Number: _____

Reception Centre

Location:_____
Phone Number: _____

Wind Direction: _____

A5 - AIR MONITORING LOG

Date: _____ Prepared By: _____ Responder Position: _____

Time (24 Hrs)	Location of Samples	H₂S (ppm)	LEL (%)	O₂ (%)	SO₂ (ppm)	Other	TEMP (°C/°F)	Wind Conditions Direction (FROM) (i.e. From the NW to the SE)	Wind Conditions Speed (km/hr or mph)	Comments

Estimate meteorological conditions where accurate readings are not available.

ICS 214 FORM - INDIVIDUAL ACTIVITY LOG

Event: _____

Date: _____

By: _____

Activity Log

Time	Details

Page _____ of _____

OVERVIEW

In the event of an emergency in which residents need to be evacuated, a Reception Centre must be established to receive and register the evacuees. A Reception Centre Representative is assigned to manage / coordinate activities at the Reception Centre. The Reception Centre Representative continuously updates the Public Protection Supervisor with a list of those who have, and have not, checked in at the Reception Centre.

RECEPTION CENTRE REP ROLES

- ❑ Confirm Reception Centre is available for use.
- ❑ Establish Reception Centre.
- ❑ Confirm communication links.
- ❑ Receive evacuees and maintain a Reception Centre Registration Log. **FORM B1**
- ❑ Maintain a School Children Registration Record, if required. **FORM B9**
- ❑ Arrange for food and accommodations for the evacuees.
- ❑ Provide evacuees with a place to request counselling services, if required.
- ❑ Record and follow up on all evacuees who choose to make their own accommodation arrangements.
- ❑ Arrange for temporary care of livestock (if possible) and the security of evacuated property. **FORM B2**
- ❑ Establish and oversee compensation administration activities at the reception centre.
- ❑ Reimburse evacuees for their immediate out-of-pocket expenses and log details on a Resident Compensation Log. **FORM C2**
- ❑ Where possible, provide evacuees with information regarding their property, livestock, and the incident. **FORM ICS 214**
- ❑ Forward all media and incident inquiries to the Information Officer.
- ❑ Report all names of evacuees who have registered at the Reception Centre to the Public Protection Supervisor.
- ❑ Document activities using the ICS 214 Individual Activity Log.
- ❑ Assist with post-incident activities.
- ❑ Confirm information to be released to public with the Information Officer.
- ❑ Address resident concerns and forward them to the Public Protection Supervisor.

1. CHOOSING A RECEPTION CENTRE

- ❑ Reception Centres are usually located in schools, hotels / motels, or community halls.
- ❑ It may be useful to coordinate the location of the Reception Centre with the local authority (city, town, county, M.D., etc.).
- ❑ See Area Specific Information (white tabs) for pre-identified Reception Centres in your area.
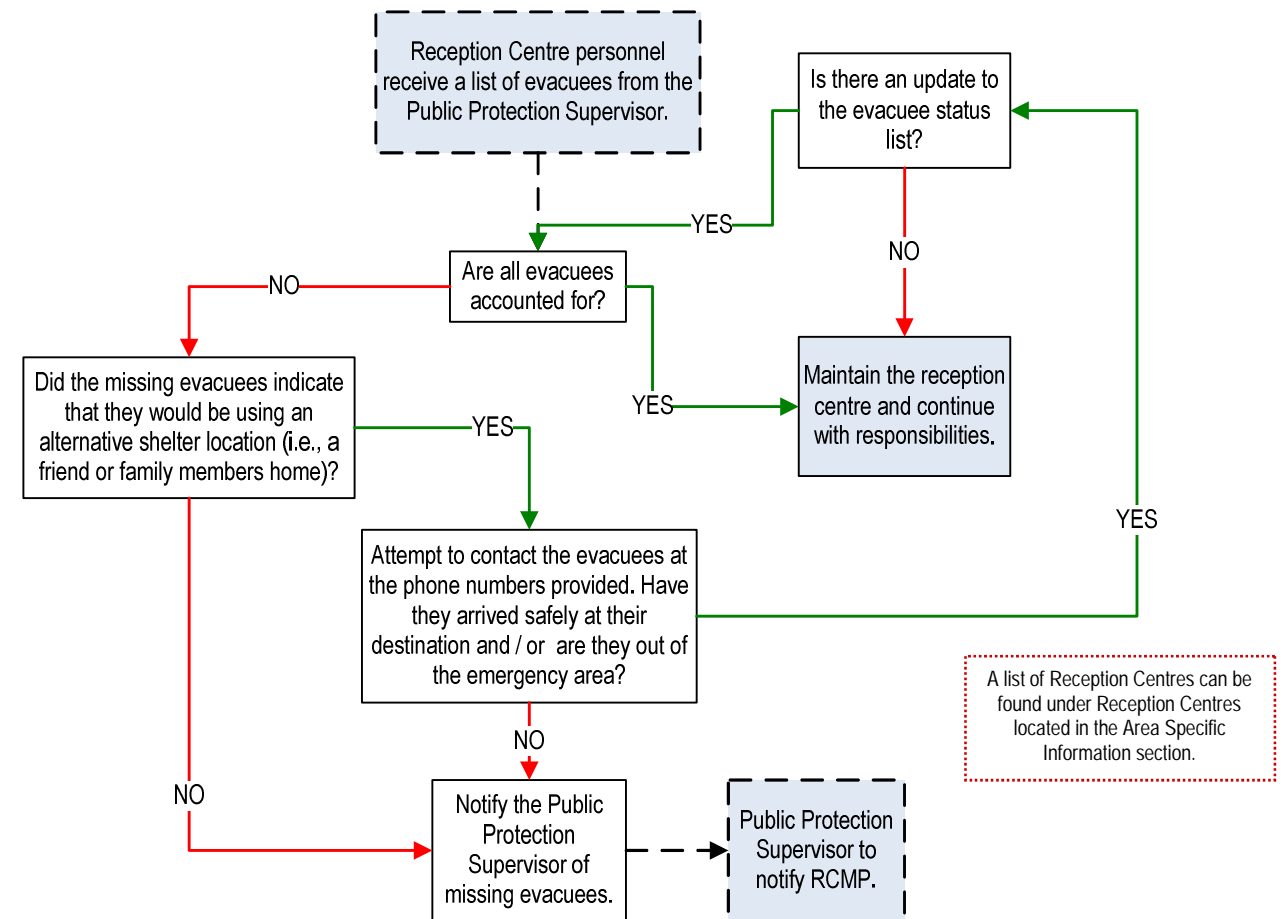
A Reception Centre should:

- ❑ Have a conference room of some type where a large number of people can gather.
- ❑ Have conferencing services including fax machine, internet access, and phone access.
- ❑ Be large enough to house all of the evacuees.
- ❑ Be outside of the hazard area.
- ❑ Allow residents to evacuate to the Reception Centre without travelling through the hazard area.
- ❑ Allow pets.

TIPS

- ❑ Ensure you have enough staff to handle the needs of all of the evacuees.
- ❑ Allow evacuees to vent their emotions.
- ❑ Do not make any promises that cannot be kept.
- ❑ Attempt to reunite families as quickly as possible.
- ❑ Document the details of anyone who may have trouble coping with the incident so that they can be given proper psychological support.
- ❑ Monitor whether residents that have been contacted by the Telephoners, Rovers, and Roadblock personnel have checked in at the Reception Centre.

2. RECEPTION CENTRE FEEDBACK LOOP

Reception Centre personnel receive a list of evacuees from the Public Protection Supervisor.

Are all evacuees accounted for?

- NO → Did the missing evacuees indicate that they would be using an alternative shelter location (i.e., a friend or family members home)?
  - NO → Notify the Public Protection Supervisor of missing evacuees.
  - YES → Attempt to contact the evacuees at the phone numbers provided. Have they arrived safely at their destination and / or are they out of the emergency area?
    - NO → Notify the Public Protection Supervisor of missing evacuees.
    - YES → Is there an update to the evacuee status list?
- YES → Is there an update to the evacuee status list?
  - NO → Maintain the reception centre and continue with responsibilities.
  - YES → Maintain the reception centre and continue with responsibilities.

Notify the Public Protection Supervisor of missing evacuees. → Public Protection Supervisor to notify RCMP.

A list of Reception Centres can be found under Reception Centres located in the Area Specific Information section.

RECEPTION CENTRE REGISTRATION LOG ~ EXAMPLE

FORM B1

RESIDENT ID	NAME (LIST ALL NAMES IN PARTY)		# OF OCCUPANTS	NUMBER ARRIVED	ARRIVAL TIME	DEPART TIME	DESTINATION PHONE # (Where they can be reached)	COMMENTS
	FIRST	LAST						
G124-A	John	Doe	2	2	19:06	19:21	555-555-5555	John and his wife arrived safely and then left to stay at a friend's house in Red Deer.
H131-B	Jane	Doe	3	3	19:12	19:28	555-555-5555	Jane and her 2 children arrived safely then left to stay at her mother's house in Bently.
F122-A	James	Doe	5	3	19:20		555-555-5555	James, his wife and 1 child arrived safely. The other 2 children are away on a school trip. They will stay at the reception centre for the night.

3. RECORD INFORMATION

Record information on the following forms located within this section:

- ❑ Reception Centre Registration Log
- ❑ School Children Registration Record
- ❑ Resident Compensation Log
- ❑ ICS 214 Individual Activity Log
- ❑ Media Contact Log

FORM ICS 214 **FORM B1** **FORM B2** **FORM B9** **FORM C2**

MEDIA STATEMENT

Refer all media inquiries to the Media Representative in Calgary. However, if they insist on a statement, please use the following:

"We are in the early stages of gathering information on this situation. Of utmost priority is the safety and protection of the public and all responders. Information will be available as soon as we know more. Feel free to leave your contact number with me or call our Communications department at 403-766-7751."

Note: See Section 3.0 Communication & Media for more information on media.

REPORTING AND CONTACTS

The Reception Centre Representative reports to the Public Protection Supervisor.

Name:_____
Phone Number:_____

Reception Centre:

Location:_____
Phone Number:_____

Wind Direction:_____

B1 - RECEPTION CENTRE REGISTRATION LOG

Date: _____   Responder Name: _____

Responder Position: _____   Responders Phone No.: _____

Resident ID	Name (List All Names in Party)		# Of Occupants	Number Arrived	Arrival Time	Depart Time	Destination Phone #	Comments
	First	Last						

B9 - SCHOOL CHILDREN REGISTRATION RECORD

Family Name:	Phone Number:

Student Arrival

List all students in the family arriving by school bus.

Students (Please Print)	Arrival Time (24 Hrs)	School Bus Driver	
		Print Name	Signature
1.			
2.			
3.			
4.			
5.			
6.			

Parent(s) Contact

Parents Contacted? ☐ Yes ☐ No	Time (24 Hrs):
Contacted by:	Estimated Pick-up Time (24 Hrs):

Temporary Care

Are care arrangments necessary?   ☐ Yes ☐ No

Location of temporary care:

Contact Person:	Phone Number:

B2 - RESIDENT COMPENSATION LOG

Please attach all receipts to this form. Items without receipts may not be compensated.   Date: _____

RESIDENT INFORMATION

Resident's Name:	Location of Residence / Business:	Mailing Address	Address Evacuated to:
Home Telephone #:			
Cell Phone:			
Other Contact:			
Number of Residents Evacuated:			

COMPANY INFORMATION

Contact Name: _____   Contact Phone Number: _____

No.	Date	Location	Trans.	Accom.	Meals	Phone	Sundry	TOTAL	Details of Expense
TOTAL REPORTED EXPENSES									

C2 - MEDIA CONTACT LOG

If you feel you are not the appropriate person to be answering the media questions, use the following statement:

I am not the appropriate person to speak with you about this issue. Please provide me with you name, phone number, and the name of your media outlet and I will find someone right away who has more information about what's happening. That person will call you back to answer your questions. Alternatively, please contact the Cenovus 24 Hour Calgary Media Line at 1-403-766-7751"."

Date: _____   Responder Name: _____

Responder Position: _____   Responder Phone No.: _____

Document all key events, conversations, and meetings on this form. Where lengthy notes are necessary, use additional copies or the back of the page.

Time	Call To	Call From	Media Outlet	Reporter / Contact Name	Contact Number	Remarks / Information Required

OVERVIEW

In the event of an emergency, roadblock locations and road detours will be established. The company will initially establish and maintain roadblocks until relieved by highway maintenance contractors or the RCMP. Roadblock personnel will be assigned in teams of two, one member to stop approaching traffic, the other will record the information gathered and relay to The Public Protection Supervisor. The Public Protection Supervisor must be continuously updated by Roadblock personnel so that all vehicles entering and exiting the EPZ are accounted for.

ROADBLOCK PERSONNEL ROLES

❑ In conjunction with the Public Protection Supervisor, determine the need for and location of roadblocks.
❑ Pickup and check roadblock kits.
❑ Proceed to roadblock locations.
❑ Confirm communication links and establish communication interval times.
❑ Establish roadblocks to secure the EPZ.
❑ Follow the scripts and procedures in the ERP.
❑ Knowledge and ability to communicate safest route away from hazard. [FORM A5]
❑ Monitor area for H_2S and / or LEL with personal monitors and document readings on the Air Monitoring Log.
❑ Report all reading changes / increases to the Public Protection Supervisor.
❑ For your own safety, ensure the Public Protection Supervisor is notified immediately if readings are approaching 10% LEL and / or 10 ppm H_2S.
❑ Move location of Roadblock immediately if readings are approaching 10% LEL and / or 10 ppm H_2S. [FORM B4]
❑ Record all incoming and outgoing traffic, personnel, and equipment on the Roadblock Log. [ICS 214]
❑ Forward information given to you by people passing through your location to the Public Protection Supervisor.
❑ Document activities using the ICS 214 Individual Activity Log.
❑ Maintain communication with the Public Protection Supervisor.
❑ Maintain roadblock locations. Do not leave until requested to do so by the Public Protection Supervisor or until relieved by other Roadblock personnel.
❑ Assist with post-incident activities.

ROADBLOCK KIT CONTENTS ~ SAMPLE

The roadblock kit may contain the following items:
Recommended
❑ Direct communication capability (radio, cell phone, etc.)
❑ ERP maps and roadblock forms
❑ Flashlight and batteries
❑ High visibility / reflective vests
❑ Orange traffic cones / reflectors
❑ Pens and / or pencils
❑ Personal Air Monitoring Device (H_2S, CO, O_2, LEL)
❑ Portable rotating emergency light
❑ SCBA
❑ Hand-held stop sign with reflective tape
❑ Waterproof bag
Optional
❑ Caution tape
❑ Rain suit
❑ Road barrier

TIPS

❑ When talking to motorists at the roadblock, ONLY provide them with the information as directed by the Public Protection Supervisor.
❑ Ask for identification prior to granting access.
❑ You do not have the legal authority to restrict access to the area without an order from the relevant authority. Report any person who chooses to proceed, without permission, through the roadblock.
❑ Check with the motorists and ensure all members of their residence are accounted for and documented on the Resident Contact Report any resident that is left behind in the EPZ. [FORM B3]
❑ The roadblock should be setup to allow optimal visibility and sufficient distance for traffic to come to a safe and complete stop.
❑ Roadblock personnel should be highly visible on the side of the road and have an escape route in case of an emergency.
❑ DO NOT leave your position until you are directed to do so.

---

1. CHOOSING A ROADBLOCK

Roadblocks should be established:
❑ Approximately where the EPZ intersects any highways / roads.
❑ Outside of the hazard area.
❑ At a conspicuous location where the Roadblock personnel will be visible to approaching traffic, providing them with enough time to safely stop.
❑ At a location where traffic can easily turn around or detour (consider the potential for larger vehicles such as buses, semi-trailers, drilling rigs, etc.).
❑ Where possible at natural roadblock locations (e.g., gates, bridges, junctions, etc.).

2. BEFORE DEPARTURE

❑ Make sure your vehicle is equipped and suitable for the travel conditions.
❑ Check roadblock kit to confirm all items are present (see sample of roadblock kit contents to left).
❑ Confirm that your handheld monitor for H_2S and / or LEL is functioning properly.
❑ Check all communications devices.
❑ Check that the red signaling baton flashlight is working and has spare batteries.
❑ Confirm that you have enough copies of the Roadblock Log form.
❑ Confirm the location of the roadblock with the Public Protection Supervisor and make sure you have a safe route to the assigned location that does not cross the hazardous area.

3. SETTING UP A ROADBLOCK

❑ Park vehicle as illustrated, activating four way flashers and roof mounted rotating beacon.

❑ Put on reflective vests.

❑ Take a reading with your handheld monitor for H_2S and / or LEL; ensuring your roadblock is not too close to the edge of the EPZ. Record readings on the Air Monitoring Log. [FORM A5]

❑ Notify the Public Protection Supervisor once your roadblock is set up.

❑ Continue to monitor and record H_2S and / or LEL levels at scheduled intervals. Report to the Public Protection Supervisor at scheduled intervals.

❑ Maintain roadblock until the emergency is over and the "all clear" message is given or until relieved by other Roadblock personnel.

HAZARD AREA
LEAVING EPZ
STOP
Shoulder
ENTERING EPZ
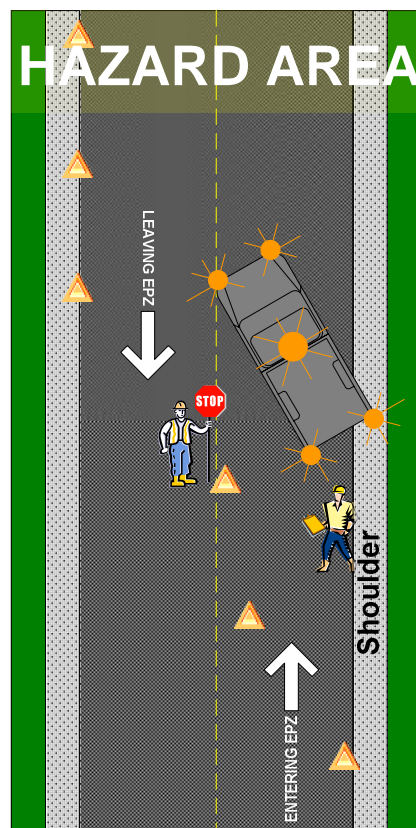
WARNING MARKERS – these markers will be indicators that there is a roadblock ahead

---

4. HOW TO STOP TRAFFIC

1. Hold the reflective stop / slow paddle erect and away from your body. Never wave the sign.
2. Look directly at the approaching driver.
3. Raise your free arm with the palm of your hand exposed to the driver.
4. Bring the vehicle to a full stop.
5. After the first vehicle has stopped, move to a spot (near the centre line of the roadway) where you can be seen by other approaching vehicles.

Because visibility is reduced at night, it is important that you use utmost care when stopping traffic through a roadblock area, and that you protect yourself from injury by:

❑ Standing in a safe position on the shoulder of the road.
❑ Waving the red signaling baton flashlight back and forth.

Note: The red signaling baton flashlight should only be used in place of the reflective stop / slow paddle at night or in conditions of low / poor visibility.

5a. ROADBLOCK SCRIPT

"I am with Cenovus and we have an emergency ahead. This situation is serious enough to warrant restricting access beyond this point and I am asking you to take an alternate route."

Note:
♦ Record driver's name, vehicle make, colour, etc. and at least the license plate number of all vehicles approaching your roadblock; also make a note of the time and of the direction the vehicle took when leaving (e.g., east, south, west, north) on your log sheet.

♦ Remember you have no legal position to restrict access to the general public. You are there to protect and notify – to protect the health and safety of the people who have evacuated the area by notifying them of the danger and secondly to protect the property of the residents who have evacuated the area.

♦ Should someone continue into the restricted area, regardless of your warning about personal safety, then use the 2-way radio or cell phone to notify the Public Protection Supervisor and the matter shall be immediately turned over to the Police.

5b. MEDIA STATEMENT

If the media arrives at your roadblock location, company personnel may give the following statement:

"We are in the early stages of gathering information on this situation. Of utmost priority is the safety and protection of the public and all responders. Information will be available as soon as we know more. Feel free to leave your contact number with me or call our Communications department at 403-766-7751."

Contact the Public Protection Supervisor if a media representative arrives at your roadblock.

NEVER offer your opinion of what is happening at the location to a media person or stranger. This can be interpreted as the company's position. DO NOT give statements, other than the above message, regarding the emergency situation to the MEDIA. Refer them to the Information Officer.

BE COURTEOUS BUT FIRM.
IF THE QUESTIONING PERSISTS, JUST KEEP POLITELY REPEATING WORD FOR WORD THE STATEMENT ABOVE.

6. RECORD INFORMATION

Record information on the following forms located within this section:
❑ Roadblock Log
❑ Resident Contact Log   ❑ ICS 214 Individual Activity Log
❑ Air Monitoring Log

[ICS 214] [FORM A5] [FORM B3] [FORM B4]

REPORTING AND CONTACTS

Roadblock personnel report to the Public Protection Supervisor.

Name:_____
Phone Number:_____

Reception Centre

Location:_____
Phone Number:_____

Wind Direction:_____

To give motorists time to prepare to come to a stop, it is recommended that the Roadblock personnel set up all available collapsible reflective triangles 100 metres apart, at a minimum distance of 200 metres before the roadblock.

Roadblock personnel cannot force an evacuation or restrict access to the area unless proper authority has been granted. The authority for forced evacuation is gained only through the declaration of a State of Local Emergency by the local authority.

When establishing a roadblock consider:
❑ Visibility
❑ Distance
❑ Bends in the road
❑ Level of the ground

Remember to:
❑ Remain calm
❑ Be courteous
❑ Record names
❑ Notify the Public Protection Supervisor

POSSIBLE SCENARIOS FOR ROADBLOCK PERSONNEL:

♦ Motorist obeys request and drives away from the EPZ.
♦ Motorist is leaving the EPZ and agrees not to return until further notice.
♦ Emergency responders (service companies, fire, ambulance, etc.) are entering the EPZ to help respond to the incident.
♦ Motorist disobeys request to leave the area and enters the EPZ.

In all cases, notify the Public Protection Supervisor and log all information.

March 2021

ROADBLOCKS

B3 - RESIDENT CONTACT LOG

Date: _____ Responder Name: _____

Responder Position: _____ Responders Phone No.: _____

Time	Resident Name	Ref. No. on Map for Residence	Shelter / Evacuate	Number of People		Assistance or Transportation Required?		Comments
				Inside	Outside			
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	

B4 - ROADBLOCK LOG

Only emergency responders should be allowed to enter the Emergency Planning Zone (EPZ).

Date: _____ Responder Name: _____

Responder Position: _____ Responders Phone No.: _____

Vehicle Type	License Plate Number and Province / State	Name of Driver (if available)	Number of People in Vehicle	Time Entering Zone	Time Exiting Zone	Comments (Record all vehicles turned away)

A5 - AIR MONITORING LOG

Responder Position: _____

Prepared By: _____

Date: _____

Time (24 Hrs)	Location of Samples	H₂S (ppm)	LEL (%)	O₂ (%)	SO₂ (ppm)	Other	TEMP (°C/°F)	Wind Conditions		Comments
								Direction (FROM) (i.e. From the NW to the SE)	Speed (km/hr or mph)	

*Estimate meteorological conditions where accurate readings are not available.

OVERVIEW

Rovers are responsible for patrolling the Emergency Planning Zone to locate and notify residents, businesses, industrial operators, transients (i.e. hunters, trappers, recreational users, non-resident landowners), and the general public. The Public Protection Supervisor must be continuously updated by the Rovers so that unsuccessful attempts to evacuate residents, transients, etc. can be followed up on immediately.

ROVER PERSONNEL ROLES

- Confirm resident contact lists are available.
- Confirm communication links.
- Know safe routes in and out of the EPZ.
- Search for residents and transients in the Emergency Planning and Response Zones.
- Check all buildings including barns, shops, sheds, etc.
- Assist, as required, with the notification, evacuation or sheltering of persons within the Emergency Planning Zone. Record all contact with residents using the Resident Contact Log. **[FORM B3]**
- Post Evacuation Notices for residents that are not at their residence. **[FORM B5]**
- Follow the scripts and procedures in the ERP.
- Monitor area for H_2S and / or LEL with personal monitors and document readings on the Air Monitoring Log. **[FORM A5]**
- Report all reading changes / increases to the Public Protection Supervisor.
- For your own safety, ensure the Public Protection Supervisor is notified immediately if readings are approaching the following levels: 10% LEL and / or 10 ppm H_2S.
- Report any suspicious behaviour to the Public Protection Supervisor who will notify the police as required.
- Document all activities using the ICS 214 Individual Activity Log. **[FORM ICS 214]**
- Maintain communication with the Public Protection Supervisor.
- Assist with post-incident activities.

MEDIA STATEMENT

If a media representative approaches you, company personnel may give the following statement:

"We are in the early stages of gathering information on this situation. Of utmost priority is the safety and protection of the public and all responders. Information will be available as soon as we know more. Feel free to leave your contact number with me or call our Communications department at 403-766-7751."

Contact the Public Protection Supervisor if a media representative approaches you.

NEVER offer your opinion of what is happening at the location to a media person or stranger. This can be interpreted as the company's position. DO NOT give statements, other than the above message, regarding the emergency situation to the MEDIA. Refer them to the Information Officer.

BE COURTEOUS BUT FIRM.
IF THE QUESTIONING PERSISTS, JUST KEEP POLITELY REPEATING WORD FOR WORD THE STATEMENT ABOVE.

TIPS

Remember to:
- Remain calm
- Be courteous
- Document all actions and comments
- Notify the Public Protection Supervisor

Remember to use a handheld H_2S and / or LEL monitor to continually test the atmosphere.
Report all H_2S and / or LEL reading changes / increases to the Public Protection Supervisor.

Response personnel cannot force an evacuation or restrict access to the area unless proper authority has been granted. The authority for forced evacuation is gained only through the declaration of a State of Local Emergency by the local authority.

REPORTING AND CONTACTS

Rovers report to the Public Protection Supervisor.

Name:_____ Phone Number:_____

Reception Centre:

Location:_____ Phone Number:_____

Wind Direction:_____

EVACUATION NOTICE ~ EXAMPLE   **[FORM B5]**

Date of Notice: _____

Time Notice Delivered: _____

EVACUATION NOTICE

Cenovus Energy Inc. has an emergency at its nearby location:

_____

As a safety precaution, please leave the area in a (north / east / south / west) direction and proceed to the Reception Centre located at:

_____.

Cenovus representatives will be available at the Reception Centre to address your questions or concerns.

For assistance or additional information, contact Cenovus at

_____.

Thank you for your cooperation.

BEFORE DEPARTURE

1.

- Protect yourself
- Ensure you are equipped with all necessary equipment:
  - SCBA
  - Gas monitors
  - Mobile communications or other form of communication
  - Forms
  - Vehicle (4x4) with full tank of fuel
  - Map
- Confirm that your handheld monitor for H_2S and / or LEL is functioning properly.
- Confirm that you have enough copies of the Evacuation Notice.
- Confirm your assignments with the Public Protection Supervisor and make sure you have a safe route to the assigned location that does not cross the hazardous area.

NOTIFYING RESIDENTS / TRANSIENTS

2a.

The Public Protection Supervisor may request you to patrol the Emergency Planning and Response Zones in search of transients (people passing through the area) and / or residents that couldn't be reached by phone. Make contact with residents / transients and after providing an explanation record their names, contact information, purpose for being in the area (travelling through, live in the area, etc.), current condition, timing of your arrival, and whether or not they require evacuation assistance.

"Hi, I am [Insert Name] representing Cenovus Energy Inc. The company is presently experiencing control problems at a nearby location. The situation is serious enough that we are evacuating the public in the area. For your own safety I must ask you to leave the area immediately and check in with a company representative at the Reception Centre. Representatives at the Reception Centre will address any questions you may have and will make arrangements for your temporary accommodations."

- Ask if they will require evacuation assistance and arrange additional transportation assistance if necessary.
- Make sure they are all accounted for.
- Ensure they gather any supplies they will need for the next 24 hours (medicines, baby food, diapers, etc.).
- If they are able to transport themselves to the Reception Centre provide them with directions that will keep them away from the hazard.
- Ask them if they have any questions.
- Provide them with your name and contact information in case they need assistance later.
- Report to the Public Protection Supervisor.

REQUESTED EVACUATION ASSISTANCE

2b.

The Public Protection Supervisor may request you to provide evacuation assistance for residents that have requested it. Ensure you obtain the number of residents requiring assistance, resident's names, location (legal and address), and the reason evacuation assistance is required (medical issue, children home alone, etc). A Telephoner should have already contacted and explained the situation to the residents; however, it is a good idea to confirm with the Public Protection Supervisor that they know you are coming to assist them. If they have not already been informed, contact the resident to tell them you are on your way and provide an estimated time of arrival.

"Hi, I am [Insert Name] representing Cenovus Energy Inc. I am here to help you evacuate out of the hazard area and make sure you arrive safely at the Reception Centre. A company representative at the Reception Centre will address any questions you may have and will make arrangements for your temporary accommodations."

- Try not to scare them. They are aware you might be coming but don't know what to expect.
- Make sure they are all accounted for.
- Ensure they gather any supplies they will need for the next 24 hours (medicines, baby food, diapers, etc.)
- Ask them if they have any questions.
- Once you are satisfied that all personnel from the residence are accounted for, deliver them to the Reception Centre.
- On the way to the Reception Centre, notify the Public Protection Supervisor of your progress and estimated time of arrival at the Reception Centre.
- Ensure that the residents check in at the Reception Centre with the Reception Centre Representative before you leave for your next assignment.

RECORD INFORMATION

3.

Record information on the following forms located within this section:
- Resident Contact Log
- Air Monitoring Log
- ICS 214 Individual Activity Log **[FORM ICS 214] [FORM A5] [FORM B3] [FORM B5]**
- Evacuation Notice

Date of Notice: _____

Time Notice Delivered: _____

EVACUATION NOTICE

Cenovus Energy Inc. has an emergency at its nearby location:

_____

As a safety precaution, please leave the area in a

_____ direction and proceed to the

Reception Centre located at:

_____.

Cenovus representatives will be available at the Reception Centre

to address your questions or concerns.

For assistance or additional information, contact Cenovus at

_____.

Thank you for your cooperation.

Date: _____   Responder Name: _____

Responder Position: _____   Responders Phone No.: _____

Time	Resident Name	Ref. No. on Map for Residence	Shelter / Evacuate	Number of People		Assistance or Transportation Required?		Comments
				Inside	Outside			
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	

Date: _____   Prepared By: _____   Responder Position: _____

Time (24 Hrs)	Location of Samples	H_2S (ppm)	LEL (%)	O_2 (%)	SO_2 (ppm)	Other	TEMP (°C/°F)	Direction (FROM) (i.e. From the NW to the SE)	Speed (km/hr or mph)	Comments

(Wind Conditions spans Direction and Speed columns)

*Estimate meteorological conditions where accurate readings are not available.

OVERVIEW

In the event of an emergency in which residents and area users need to be sheltered and / or evacuated, a team of Telephoners will be established to contact people in the area and provide instructions to ensure their safety. The Public Protection Supervisor must be continuously updated with the Telephoners progress so that unsuccessful contact attempts and requests for evacuation assistance can be followed up on immediately.

TELEPHONER PERSONNEL ROLES

- ❑ Confirm resident contact lists are available.
- ❑ Confirm communication links.
- ❑ In conjunction with the Public Protection Supervisor, determine who needs to be notified (residents, businesses, area users, etc.). **FORM B6**
- ❑ Review with the Public Protection Supervisor the telephoner scripts to be used: Early Notification / Voluntary Evacuation Message, Shelter-in-Place Phone Message, Evacuation Phone Message. **FORM B7**
- ❑ Contact special needs residents at a Level 1 Emergency and provide them with the option to evacuate. **FORM B8**
- ❑ Contact the other residents and area users in the EPZ and advise them to evacuate or shelter.
- ❑ Contact the schools / school buses to make arrangements for school age children (if applicable).
  - ❑ Advise that buses in the affected area leave immediately and that buses should not enter the area.
  - ❑ Request a school administrator for the reception centre to assist in managing the children and releasing them to their guardians.
- ❑ Document all resident interactions using the Resident Contact Log and report this information to the Public Protection Supervisor. Immediately advise the Public Protection Supervisor about unsuccessful contacts and any residents requiring assistance. **FORM B3**
- ❑ Document all activities using the ICS 214 Individual Activity Log. **ICS 214**
- ❑ Assist with post-incident activities.

SHELTER-IN-PLACE INSTRUCTIONS

- ❑ Immediately gather everyone indoors and stay there. Do not leave even if you see people outside.
- ❑ Close and lock all outside doors and windows. Tape gaps around doors and windows. Leave all inside doors open.
- ❑ Turn off appliances or equipment that blows out indoor air or sucks in outside air.
- ❑ Turn down furnace thermostats to the minimum setting and turn off air conditioners.
- ❑ Extinguish all potential sources of ignition (do not smoke or attempt to start your vehicle).
- ❑ Stay off of the phone so that you can be contacted by emergency personnel.
- ❑ Stay tuned to local radio and television for possible updates.

Note: For the full Shelter-In-Place instructions see page 2 of the Shelter-In-Place Telephoner Text form located in SECTION 6.0: FORMS. **FORM B7**

1. WHO TO CONTACT

- ❑ Residents
- ❑ Schools / School Bus Transportation
- ❑ Businesses
- ❑ Public Facilities
- ❑ Recreation Areas
- ❑ Urban Centres (contact local authority to coordinate)
- ❑ Area Users (other oil and gas operators, rail, logging, etc.)
- ❑ Trappers
- ❑ Guides / Outfitters
- ❑ Grazing Lease / Allotment Holders

Priority is given to:
- ❑ Those closest to the hazard
- ❑ Those downwind of the hazard
- ❑ Those with sensitivity issues (health issues, require evacuation assistance, etc.)

TIPS

- ❑ Ensure you have enough personnel to quickly and efficiently shelter / evacuate the required residents / area users.
- ❑ A general guideline is to have one Telephoner for every seven residences that need to be contacted and one Telephoners Leader for every ten Telephoners.
- ❑ Special needs residents should be contacted at a Level 1 Emergency and given the option to evacuate.

> Response personnel cannot force an evacuation or restrict access to the area unless proper authority has been granted. The authority for forced evacuation is gained only through the declaration of a State of Local Emergency by the local authority.

2a. SHELTER-IN-PLACE PHONE MESSAGE

Hello, this is _____ (your name) of _____ Cenovus Energy Inc. .
Is this the _____ (name) residence at _____ (telephone number) ?
_____ Cenovus _____ is responding to a (potential) emergency at _____ (location) _____ in your area.
For your safety, it is extremely important that you, and those with you, stay indoors until the potential hazard no longer exists, or you are advised to evacuate.
To help us understand your immediate needs, we need to know:

How many people are at your location now?

Adults_____
Children_____

Is there anyone in your household that you cannot contact to inform them of the situation and advise them to get in doors or stay out of the area?

    ❑ Yes   ❑ No

IF YES Whom? _____
    Location of the person(s) _____
    We will send someone to find them as soon as possible.

Do you have children in school at this time?

    ❑ Yes   ❑ No

IF YES What school? _____
    Children's names _____
    We will contact the school to ensure the safety of your children. Buses will be directed to leave the area immediately. If school is in session, your children will be redirected to the reception centre by their regular bus driver when the school day is over.

Do you have the "Shelter-in-Place" instructions previously provided to you by _____ Cenovus _____?

    ❑ Yes   ❑ No

IF YES Please follow the Shelter-in-Place instructions located inside the resident pamphlet.

IF NO Verbally walk the resident through the Shelter-in-Place instructions on the next page.

Do you understand what I have told you?
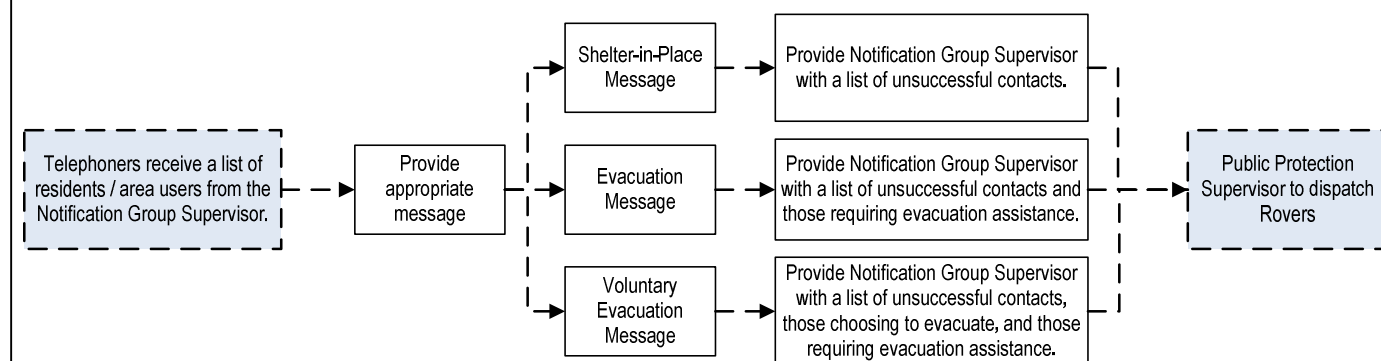
Is there an alternate number we can contact you at? _____

If you have any urgent questions, please contact _____ Cenovus _____ at _____ (telephone number) _____.
Thank you for your cooperation.
(Pass on all information regarding this call to the Public Protection Supervisor immediately)

Note: Refer to Shelter-in-Place instructions on page 2 of the Shelter-in-Place Phone Message located in this section.

2b. EVACUATION PHONE MESSAGE

Hello, this is _____ (your name) of _____ Cenovus Energy Inc. .
Is this the _____ (name) residence at _____ (telephone number) ?
_____ Cenovus _____ is responding to a (potential) emergency at _____ (location) _____ in your area.
For your safety, it is extremely important that you and your family leave your residence immediately and travel in a north / east / south / west direction to our reception centre located at:

_____

To help us understand your immediate needs, we need to know:

How many people are at your location now?

Adults_____
Children_____

Is there anyone in your household that you cannot contact to inform them of the situation and advise them to evacuate away from the area?

    ❑ Yes   ❑ No

IF YES Whom? _____
    Location of the person(s) _____
    We will send someone to find them as soon as possible.

Do you have children in school at this time?

    ❑ Yes   ❑ No

IF YES What school? _____
    Children's names _____
    We will contact the school to ensure the safety of your children. Buses will be directed to leave the area immediately. If school is in session, your children will be redirected to the reception centre by their regular bus driver when the school day is over.

Do you require evacuation / transportation assistance?

    ❑ Yes   ❑ No

IF YES We are sending someone to assist you. Please stay indoors and close all doors and windows until a Rover or the local police arrive to evacuate you.

IF NO Provide the resident with:
    ❑ Directions to safely travel to the reception centre
    ❑ A list of items to bring with them to the reception centre (medications, cell phone, etc.)
    ❑ An idea of how long they may be expected to stay at the reception centre
    ❑ The option to bring their house pets to the reception centre

Please contact _____ Cenovus _____ if you are unable to make it to the reception centre for any reason. Please keep your phone line free so that we can contact you if necessary.

Is there an alternate number we can contact you at? _____

A company representative at the reception centre will address any questions you may have and will make arrangements for your temporary accommodations. Do you understand everything I have told you? Are you leaving immediately?

If you have any urgent questions, please contact _____ Cenovus _____ at _____ (telephone number) _____.

Thank you for your cooperation.
(Pass on all information regarding this call to the Public Protection Supervisor immediately)

TELEPHONER COMMUNICATION FLOW

```
Telephoners receive a list of          Provide              Shelter-in-Place    →   Provide Notification Group Supervisor
residents / area users from the   →    appropriate    →    Message                  with a list of unsuccessful contacts.
Notification Group Supervisor.         message
                                                            Evacuation          →   Provide Notification Group Supervisor     →   Public Protection
                                                            Message                  with a list of unsuccessful contacts and        Supervisor to dispatch
                                                                                     those requiring evacuation assistance.          Rovers

                                                            Voluntary           →   Provide Notification Group Supervisor
                                                            Evacuation               with a list of unsuccessful contacts,
                                                            Message                  those choosing to evacuate, and those
                                                                                     requiring evacuation assistance.
```

3. RECORD INFORMATION

Record information on the following forms located within this section:

- ❑ Resident Contact Log
- ❑ ICS 214 Individual Activity Log
- ❑ Voluntary Evac Message
- ❑ Shelter-in-Place Message
- ❑ Evacuation Message

ICS 214   **FORM B3**   **FORM B6**   **FORM B7**   **FORM B8**

REPORTING AND CONTACTS

Telephoners report to the Public Protection Supervisor.

    Name: _____
    Phone Number: _____

Reception Centre
    Location: _____
    Phone Number: _____

Wind Direction: _____

Date: _____ Responder Name: _____

Responder Position: _____ Responders Phone No.: _____

Time	Resident Name	Ref. No. on Map for Residence	Shelter / Evacuate	Number of People		Assistance or Transportation Required?		Comments
				Inside	Outside			
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	

Before calling, determine a safe evacuation route for the residents to travel, away from the emergency hazard area, upwind if possible, towards the reception centre.

Hello, this is *your name* calling from Cenovus Energy Inc.

Is this the *Name of residence / business* ?

Cenovus is responding to a *(potential)* emergency *Location* in your area.

You are in no danger at this time. All efforts are being made to resolve the problem and this phone call is only to inform you and provide you with an early notification.

To help us understand your immediate needs we need to know:

How many people are at your location now?

Adults: *Number of Adults* Children: *Number of Children*

Do you wish to leave your residence at this time?

If Yes:

Please travel in a *North / East / South / West* direction to our reception centre located at: _____

If No:

Please standby for further contact. Please do not use your telephone for outgoing calls as this may prevent us from contacting you with updated information or when the problem has been eliminated.

Do you understand this message? ☐ Yes ☐ No

If you have urgent questions, please contact:

Name: *Cenovus Contact* Phone Number: *Phone Number*

Thank you for your cooperation.

Pass on all information regarding this call to the Public Protection Supervisor immediately

---

Before calling, determine a safe evacuation route for the residents to travel, away from the emergency hazard area, upwind if possible, towards the reception centre.

Hello, this is [your name] of Cenovus Energy Inc.

Is this the [person's name] residence?

Cenovus is responding to a *(potential)* emergency at [location] in your area.

For your safety, it is extremely important that you and your family leave your residence immediately and travel in a [north / east / south / west] direction to our reception centre located at: _____

To help us understand your immediate needs, we need to know:

How many people are at your location now? Adults _____ **Children** _____

Is there anyone in your household that you cannot contact to inform them of the situation and advise them to evacuate away from the area? ☐ Yes ☐ No

IF YES Who? _____

Location of the person(s) _____

"We will send someone to find them as soon as possible".

Do you have children in school at this time? ☐ Yes ☐ No

IF YES What school? _____

Children's names _____

"We will contact the school to ensure the safety of your children. Buses will be directed to leave the area immediately. If school is in session, your children will be redirected to the reception centre by their regular bus driver when the school day is over".

Do you require evacuation / transportation assistance? ☐ Yes ☐ No

IF YES We are sending someone to assist you. Please stay indoors and close all doors and windows until a Rover or the local police arrive to evacuate you.

IF NO Provide the resident with:

- Directions to safely travel to the reception centre
- A list of items to bring with them to the reception centre (medications, cell phone, etc.)
- An idea of how long they may be expected to stay at the reception centre
- The option to bring their house pets to the reception centre

A company representative at the reception centre will address any questions you may have and will make arrangements for your temporary accommodations.

Do you understand everything I have told you? ☐ Yes ☐ No

Are you leaving immediately? ☐ Yes ☐ No

Is there an alternate number we can contact you at?

Please contact

Name: _____ Phone Number: _____

If you are unable to make it to the reception centre for any reason. Please keep your phone line free so that we can contact you if necessary.

If you have any urgent questions, please contact

Name: _____ Phone Number: _____

Thank you for your cooperation.

Pass on all information regarding this call to the Public Protection Supervisor immediately

---

Hello, this is [your name] of Cenovus Energy Inc.

Is this the [person's name] residence? Cenovus is responding to a (potential) emergency at [location] in your area. For your safety, it is extremely important that you, and those with you, stay indoors until the potential hazard no longer exists, or you are advised to evacuate. To help us understand your immediate needs, we need to know:

How many people are at your location now? Adults _____ Children _____

Is there anyone in your household that you cannot contact to inform them of the situation and advise them to get indoors or stay out of the area? ☐ Yes ☐ No

▶ **If Yes**

Who: _____

Location of the person(s): _____

"We will send someone to find them as soon as possible" .

Do you have children in school at this time? ☐ Yes ☐ No

▶ **If Yes**

What school? _____

Children's names _____

"We will contact the school to ensure the safety of your children. Buses will be directed to leave the area immediately. If school is in session, your children will be redirected to the reception centre by their regular bus driver when the school day is over."

Do you have the "Shelter-in-Place" instructions previously provided to you by Cenovus?

☐ Yes ☐ No

If Yes Please follow the Shelter-in-Place instructions located inside the resident pamphlet.

If No Verbally walk the resident through the Shelter-in-Place instructions on the next page.

Do you understand what I have told you? ☐ Yes ☐ No

Is there an alternate number we can contact you at? _____
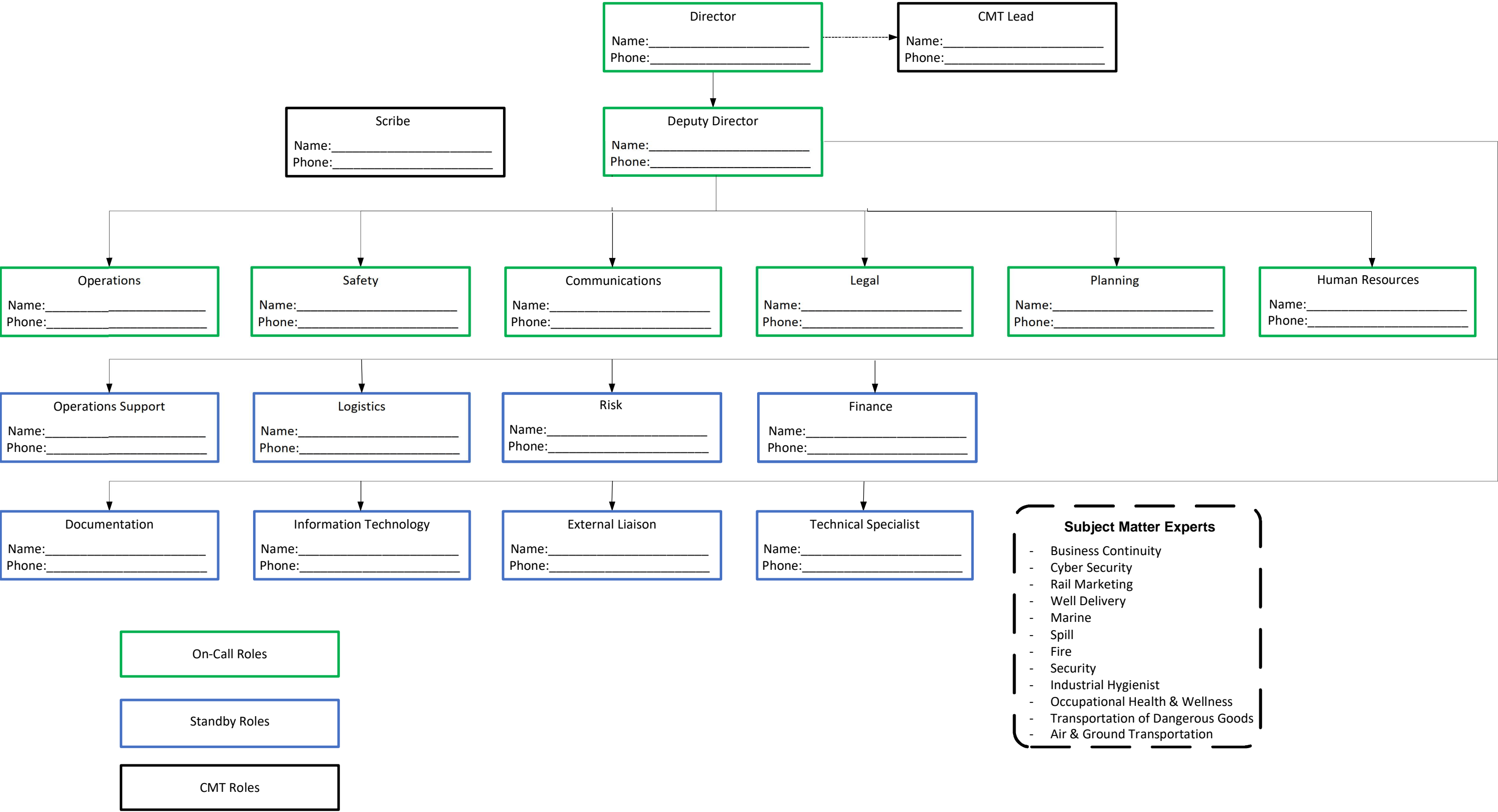
If you have any urgent questions, please contact:

Name: _____ Phone Number: _____

Thank you for your cooperation.

Pass on all information regarding this call to the Public Protection Supervisor immediately.

Director
Name:_____
Phone:_____

CMT Lead
Name:_____
Phone:_____

Scribe
Name:_____
Phone:_____

Deputy Director
Name:_____
Phone:_____

Operations
Name:_____
Phone:_____

Safety
Name:_____
Phone:_____

Communications
Name:_____
Phone:_____

Legal
Name:_____
Phone:_____

Planning
Name:_____
Phone:_____

Human Resources
Name:_____
Phone:_____

Operations Support
Name:_____
Phone:_____

Logistics
Name:_____
Phone:_____

Risk
Name:_____
Phone:_____

Finance
Name:_____
Phone:_____

Documentation
Name:_____
Phone:_____

Information Technology
Name:_____
Phone:_____

External Liaison
Name:_____
Phone:_____

Technical Specialist
Name:_____
Phone:_____

Subject Matter Experts
- Business Continuity
- Cyber Security
- Rail Marketing
- Well Delivery
- Marine
- Spill
- Fire
- Security
- Industrial Hygienist
- Occupational Health & Wellness
- Transportation of Dangerous Goods
- Air & Ground Transportation

On-Call Roles

Standby Roles

CMT Roles

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INCIDENT SUPPORT TEAM (IST) ROLES

DIRECTOR

The Director is accountable for the IST. The Director leads IST members through their personal example and the delegated responsibilities of the Deputy Director.

Responsibilities
The Director is responsible to:

1. Assess the situation to determine the size, scope, and severity of consequences of the incident.
2. Approve Deputy Director's activation of the IST.
3. Approve the Initial Holding/Public Statement crafted by the IST Legal and Communications.
4. Notify the designated CMT Leaders and provide Executive Summaries on a regular basis.
5. Set and communicate IST prioritized objectives; re-evaluate as required.
6. Review and approve press releases and public statements about the response before public distribution, major decisions, action plans, and expenditures.
7. Lead and participate in Update Meetings and approve/prioritize inputs to the open action tracker.
8. Ensure well-being of IST members.

DEPUTY DIRECTOR

The Deputy Director reports to the Director in leading the IST. The Deputy Director is responsible for the IST and facilitates all IST meetings.

The Deputy Director executes all responsibilities delegated by the Director and is prepared to assume the duties of the Director should that become necessary.

Responsibilities
Outside of an activation, the Deputy Director is responsible to:

1. Be available 24/7 to receive and triage calls and/or notifications from business unit representatives and/or stakeholders to advise and provide IST support if necessary.
2. Communicate information to all appropriate parties which may include, the Director, CMT and line management.
3. Work with IST Support Analyst to ensure all positions are filled and ready to fulfill duties for oncoming shift.
4. Participate in weekly IST handover meetings.
5. Periodically check in with Director.

During an activation, The Deputy Director is responsible to:

1. Assess situations and activate IST when necessary.

2. Ensure IST is prepared to support incident response.

3. Facilitate the IST process and all team meetings.

4. Ensure that the IST is responsive to IMT and CMT requirements.

5. Ensure appropriate workload distribution within the IST.

6. Provide guidance and leadership to IST members.

SAFETY

Responsibilities
Safety is responsible to:

1. Ensure that the response to an incident is conducted with utmost regard for the safety of responders, employees, and the public at all times throughout the response.

2. Suspend response activities or plans that are deemed to be unsafe or unusually hazardous to the health and safety of response personnel.

3. Provide guidance to the Director with regards to Cenovus' involvement with contractor-related incidents.

4. Ensure the safety and security of both the IST and IMT.

5. Support the IMT Safety Officer with due regard for the support nature of your role and without interfering with the IMT Safety Officer's response. Note: If tasked with notification of or communicating with a regulatory body such as OHS, you must ensure that the External Liaison is aware of the communication and that you use an approved message from the Communications.

6. Complete the actions and tasks designated by the Director throughout the event.

7. Maintain communications with Safety Officer on the IMT or on location depending on the nature of the event.

8. Assist the other IST members in completing the Executive Summary and its supporting forms, reports, and tasks.

9. Be prepared to assist other members of the IST as required.

COMMUNICATIONS

Responsibilities

Communications (Information Officer) is responsible for:

1. Working with the IST to develop key messages and identify key stakeholders.

> In all events, strategic reputation management is decided by the Senior Vice President, Stakeholder Engagement and Chief Sustainability Officer and the Vice President, Human Resources.

2. Identifying potential media Q&As.

3. Developing internal communications.

4. Coordinating with the Corporate Affairs Crisis Communications Team.

5. Using a separate log or the ICS 214 – Individual Activity Log to keep personal notes.

6. Managing coordination with government/regulatory agency Information Officers (IOs).

7. Obtaining sign-off from Legal, the IST Director, and Senior Vice President, Stakeholder Engagement and Chief Sustainability Officer and the Vice President, Human Resources for media statements and additionally, for news releases, the Disclosure Review Committee.

8. Debriefing the Communications department post incident.

> **NOTE:** While it is important that you gather information about the activation, you will need to do so with due regard for the Incident Command structure and without interfering with response operations.

HUMAN RESOURCES

Responsibilities

Human Resources is responsible to:

1. Ensure that the response to a major emergency incident is conducted in accordance with applicable labour regulations, contractual obligations to employees, and Corporate Human Resources policies.

2. For incidents involving injuries or fatalities, ensure appropriate notifications are conducted. In the case of a fatality, RCMP or appropriate local law enforcement authority must conduct next of kin notification.

3. For incidents involving injury or fatality, provide access to necessary psychological support and other services as required.

4. Ensure confidentiality of worker information is protected.

5. Support the IMT. While it is important that you gather information about the response, you will need to do so with due regard for the supportive nature of your role and without interfering with the IMT response operations.

6. Complete the actions and tasks designated by the Director during the command staff briefing and throughout the event.

7. If necessary, designate a Human Resources Representative to the IMT to provide additional on-site support services.

8. Maintain communications with your representative on the IMT.

9. Assist the other IST members in completing the Status Report and its supporting forms, reports and tasks as required.

LEGAL

Responsibilities

Legal is responsible to:

1. Ensure that the response to an emergency incident is planned and conducted in compliance with applicable federal, provincial, and municipal laws and regulations.

2. Proactively identify and advise the Director on potential legal and/or liability issues related to an incident, and work to reduce or minimize the company's exposure to prosecution and liability claims.

3. Prior to their release, review internal and external information releases prepared by Communications.

4. Support the ICP when requested to do so. While it is important that you gather information about the response, you will need to do so with due regard for the support nature of your role and without unnecessarily interfering with the ICP ability to respond to the event.

5. If necessary, obtain outside legal counsel to provide additional on-site support services.

6. Complete the actions and tasks designated by the Director throughout the event.

7. Assist the other IST members in completing the Executive Summary and its supporting forms, reports, and tasks.

8. Ensure that SVP General Counsel is appropriately briefed.

9. Ensure steps are taken to preserve privilege over appropriate records and the retention of any outside experts.

OPERATIONS

Responsibilities

Operations is responsible to:

1. Support the safe, timely, and effective physical response to an emergency event by the on-scene responders on the Incident Management Team (IMT) or Regional Response Management Team (RRMT).

2. Provide the direct link to the physical response either through the IMT or an RRMT.

3. Work closely with IST Logistics to activate additional operational support and IST Planning to determine the best response tactics.

4. Complete the actions and tasks designated by the Director during the initial staff briefing or by the IMT; throughout the event.

5. Offer support to the IMT. While it is important that you gather information about the response, you will need to do so with due regard for the support nature of your role and without interfering with the IMT response operations.

PLANNING

Responsibilities

Planning is responsible to:

1. Ensure situational awareness for the IST.

2. Support Deputy Director in facilitation of meetings and briefings.

3. Manage the open action tracker.

4. Lead Documentation.

5. Be prepared to plan, coordinate and source IST/IMT staffing.

DOCUMENTATION

Directly supporting IST Planning at Cenovus' EOC or VEOC.

Responsibilities
Documentation is responsible to:

1. Support the Planning section by completing actions and tasks as assigned.
2. As led by the Deputy Director or Director and with inputs from other IST members, collate IST reports and summaries.
3. Work with Planning to compile and display all information that supports situational awareness.
4. Maintain and organize all documentation created by the IST.
5. Manage IST live documents in the EOC or VEOC.
6. Maintain the Master Events List.
7. Ensure archiving and disposal of all documentation is properly conducted (hard and digital copies).
8. Understand various formats documentation can take.

RISK

Responsibilities
Risk is responsible to:

1. Inform the Director of the terms and conditions of all insurance policies that apply so the company can respond in an appropriate fashion.
2. Work with IST Legal to ensure that (potential) claims are reported to the company's insurers and that appropriate costs are segregated, then recorded, and documented.
3. Co-operate in the insurer's investigation of the loss.
4. Attempt to obtain advance agreement on the settlement of third-party claims.
5. Support the IMT when requested to do so. While it is important that you gather information about the response, you will need to do so with due regard for the support nature of your role and without interfering with the IMT response operations.
6. If necessary, designate a Risk Representative at the IMT to provide additional on-site support services.
7. Maintain communications with your representative at the IMT.
8. Assist the other IST members in completing the Executive Summary and its supporting forms, reports, and tasks.
9. Complete the actions and tasks designated by the Director throughout the event.
10. Be prepared to help other IST members where required.

EXTERNAL LIAISON

Responsibilities

External Liaison is responsible to:

1. Support the IMT Liaison Officer with due regard for the support nature of your role and without interfering with the IMT Liaison Officer's response.

2. Ensure that initial contact has been made with key external stakeholders (non-media) such as regulators, government agency representatives, elected officials and community groups.

3. Ensure that questions, issues, and concerns of key external stakeholders, resulting from an emergency incident are identified and dealt with in a timely and responsive manner by the IST.

4. Complete the actions and tasks designated by the Director throughout the event.

5. Assist the other IST members at their request, honoring the chain of command.

INFORMATION TECHNOLOGY (IT)

Responsibilities

Information Technology is responsible to:

1. Provide guidance, direction and overall response coordination to the IT Operations Manager, regarding an event that involves an interruption to IT Services.

2. Work with and/or support the IT Recovery Manager and other members in the EOC as appropriate.

3. Maintain communications with the IT Operations Manager.

4. Assist the other Command Staff in completing the Executive Summary.

5. Complete the actions and tasks designated by the Director throughout the event.

LOGISTICS

Responsibilities

Logistics is responsible to:

1. Attend and participate in meetings and briefings.

2. Assess the need for sources services and/or material based on the initial operating picture to help support the response.

3. Ensure that delegated logistics activities being executed outside the IST are assigned and completed and providing updates thereon to the IST.

4. Establish AFE for the response.

5. Work closely with the IMT and other IST members to determine the best way to activate additional support.

6. Complete the tasks designated by the Director throughout the event.

7. Be prepared to help other members of the IST as required.

IMT PROACTIVE PHASE

PLANNING "P"

Initial Response:

All incidents begin with the initial response (reactive phase) during the first operational period. At the onset of an emergency response an ICS Form 201 – Incident Briefing and ICS Form 209 – Incident Status Summary are completed to determine the severity of the emergency and extent of the response. Ninety-five percent of emergency responses begin and end in the first operational period.

After response personnel ensure their own personal safety by following the First On-Scene Actions, the Five Step Initial Response Guide, and associated tools, provide a structure for the Incident Commander to formulate a response and outlines the steps (key considerations) that need to be addressed and re-addressed when evaluating the incident and associated emergency response.

IMT Proactive Phase:

The Incident Management Team (IMT) Proactive Phase is required for an extended emergency response that spans over multiple operational periods and revolves around establishing the objectives, strategies, and tactics for the next upcoming operational period. Complex incidents may require an on-going response, but once engaged emergency responders will circulate through this cycle multiple times.

After the initial response has been completed, the IMT Proactive Phase Guide and associated tools provide a cycle to plan the next steps of the emergency response. This continual cycle provides a structure for the Command Staff and General Staff to complete the Incident Action Plan (IAP) and associated documents. The IMT Proactive Phase cycle and an associated IAP must be completed for each operational period until the incident is stood down.
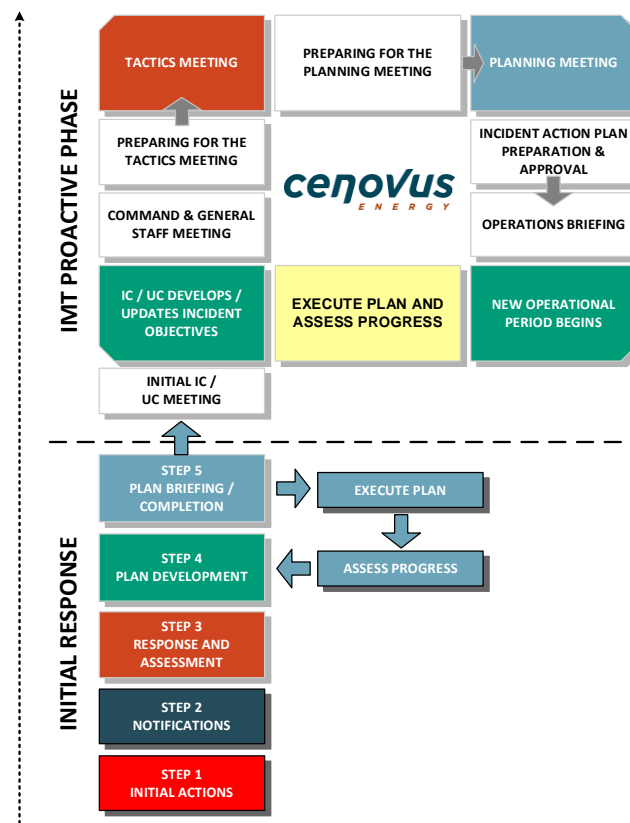
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STEP 1 - OBJECTIVES MEETING

- Incident Commander conducts the meeting.
- Review the ICS 201 form completed during the Initial Response phase and begin the ICS 209 form by evaluating the current incident status.
- Develop SMART (Specific, Measurable, Attainable, Realistic, & Time-Sensitive) objectives to mitigate the identified problems.
- Prioritize the objectives using the ICS 202 form.
- Complete the ICS 202 form and identify initial staffing on the ICS 207a form.
- Utilize IAP Checklist (A4) to complete the IAP.

PREPARE FOR TACTICS MEETING

- Develop draft strategies and tactics for each defined objective.
- Outline work assignments and develop an operations organization chart using the ICS 207a form.
- Identify future tactical plans to optimize the Tactics Meeting.
- Begin to prepare a safety analysis once all hazards have been identified using ICS 215A form.

STEP 2 - TACTICS MEETING

- Operations Section Chief conducts the meeting.
- Review the incident status using the ICS 209 form that was completed during the Objectives Meeting.
- Operations Section Chief proposes strategies and tactics.
- Evaluate and assign resources and personnel.
- Ensure that all strategies have associated tactics to ensure responder safety and complete the ICS 215A form.
- Complete the ICS 215 form and update the ICS 207a form started during the Objectives Meeting.

PREPARE FOR PLANNING MEETING

- Review and update the ICS 209 form.
- Confirm availability of resources and locations.
- Prepare all information for review at the Planning Meeting.
- Gather any additional incident documentation (i.e., maps and status boards).

STEP 3 - PLANNING MEETING

- Planning Section Chief conducts the meeting.
- Review the incident status using the updated ICS 209 form.
- Confirm the strategies and tactics assigned to achieve the defined objectives.
- Ensure that all assigned tactics can be performed safely and follow the defined safety analysis using the ICS 215A form.
- Incident Commander to give tentative approval of proposed plan and review with key response personnel.

INCIDENT ACTION PLAN PREPARATION & APPROVAL

- Produce a coordinated and sustainable Incident Action Plan using the IAP Checklist (A4), ICS forms 202, 207a, 209, 215, 215A, and gather any additional incident documentation (i.e., maps and status boards).
- Receive final approval from the Incident Commander.
- Define work assignments and break the work into manageable units.
- If necessary, other documents may be included such as a Demobilization plan.

STEP 4 - OPERATIONS BRIEFING

- Incident Commander conducts the meeting.
- Provide personnel with work assignments from the IAP.
- Operations Section Chief to brief the organization and provide clarification on all tactical assignments.
- Ensure that all responders know and understand the safety analysis, hazards, and controls.

STEP 5 - EXECUTE

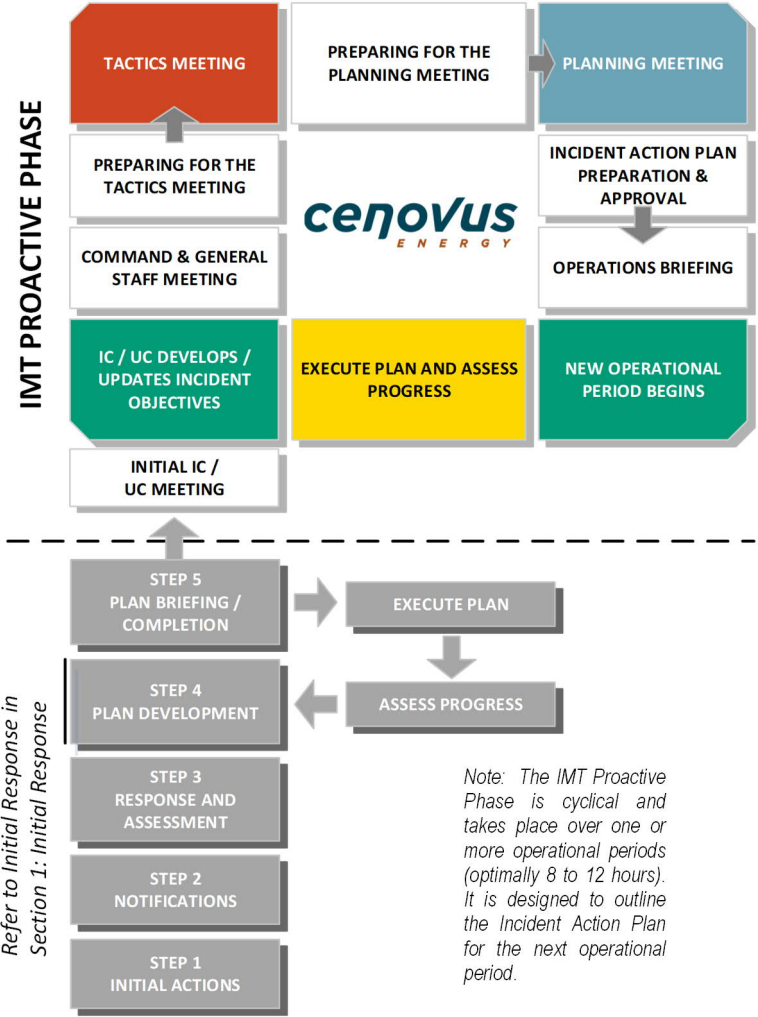- Perform work assignments according to assigned roles.
- Document all actions, decisions, and conversations.
- Constantly evaluate how well the plan is designed and being conducted.
- Adjust the plan and associated actions accordingly.
- Identify additional objectives for the upcoming operational period.
- Schedule next Objectives Meeting if applicable.

IMT PROACTIVE PHASE

TACTICS MEETING
PREPARING FOR THE PLANNING MEETING
PLANNING MEETING

PREPARING FOR THE TACTICS MEETING

cenovus ENERGY

INCIDENT ACTION PLAN PREPARATION & APPROVAL

COMMAND & GENERAL STAFF MEETING

OPERATIONS BRIEFING

IC / UC DEVELOPS / UPDATES INCIDENT OBJECTIVES
EXECUTE PLAN AND ASSESS PROGRESS
NEW OPERATIONAL PERIOD BEGINS

INITIAL IC / UC MEETING

Refer to Initial Response in Section 1: Initial Response

STEP 5 PLAN BRIEFING / COMPLETION → EXECUTE PLAN

STEP 4 PLAN DEVELOPMENT ← ASSESS PROGRESS

STEP 3 RESPONSE AND ASSESSMENT

STEP 2 NOTIFICATIONS

STEP 1 INITIAL ACTIONS

Note: The IMT Proactive Phase is cyclical and takes place over one or more operational periods (optimally 8 to 12 hours). It is designed to outline the Incident Action Plan for the next operational period.

STEP 2 TACTICS MEETING

_____ AM / PM
To
_____ AM / PM

PREPARING FOR THE TACTICS MEETING

PREPARING FOR PLANNING MEETING

TIME FRAMES

The length of this cycle will change throughout the incident. You will likely need to meet more frequently early on during an incident.

_____

STEP 3 PLANNING MEETING

_____ AM / PM
To
_____ AM / PM

INCIDENT ACTION PLAN PREPARATION & APPROVAL

STEP 1 OBJECTIVES MEETING

_____ AM / PM
To
_____ AM / PM

STEP 5 EXECUTE

_____ AM / PM
To
_____ AM / PM

STEP 4 OPERATIONS BRIEFING

_____ AM / PM
To
_____ AM / PM

IMT PROACTIVE PHASE GUIDE

H2Safety

February 2022

Note: This document is to be used as a guide only. It is not meant to replace the use of the ERP and does not eliminate the need for ERP related training.

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OBJECTIVES MEETING

Objectives Meeting Agenda
Summary:
The objectives of this meeting are to: • Have a completed **ICS 202** form agreed upon by all attendees (Command and General Staff). • Establish objectives and priorities for the upcoming operational period. • Begin an **ICS 209** Incident Status Summary report. • Begin identifying all required roles on the **ICS 207a** form. • Begin addressing the Incident Action Plan Checklist (**A4**). • Schedule and prepare for the Tactics Meeting.

Resources:	ICS 202, 207a, 209 forms, and the IAP Checklist (A4)

Agenda Items:
☐ Status Update and review the **ICS 201** Incident Briefing form.
☐ Review incident priorities and identify problems.
☐ Establish an incident organization that is capable of meeting initial and long-term challenges required to mitigate the incident and begin filling out the ICS 207a Incident Management Team Organizational Chart.
☐ Determine the incident response objectives and complete and **ICS 202** Incident Objectives form. They must be **SMART** (Specific, Measurable, Attainable, Realistic, & Time Sensitive).
☐ Document the incident status to relay to all responding personnel.

Key Points:
• **Ensure that the meeting is documented / recorded.** (Utilize the back side of this page.)
• Define the hours of work and operational period.
• Identify constraints and limitations.
• Determine expectations of the team for how all communications are to be made.
• Discuss and agree on process issues such as resource ordering, cost accounting, operations security, and sensitive information.
• Continue to develop strategies and tactics for Command and General Staff.
• Agree on division of command workload, such as press and agency briefings.

Owner: Incident Commander	Date:	Time:

Attendees:	
Name	**Role**
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Current Situation (Review ICS 201 Form and complete ICS 209 Form)

Review Incident Priorities and Problems

Priorities: Life Safety, Incident Stabilization, Infrastructure & Environment, Finance, Reputation

Problems:

Establish SMART Objectives

Objective	Responsibility
1.	
2.	
3.	
4.	
5.	

Identify Requirements

Additional Staffing
-
-
-

Additional Resources
-
-
-

Safety Message

Next Shift Change	Date:	Time:
Next Meeting: *Tactics Meeting*	Date:	Time:

TACTICS MEETING

Tactics Meeting Agenda
Summary:
The objectives of this meeting are to: • Define tactics, work assignments, and resources to meet actions identified during the Objectives Meeting. • Have completed **ICS 215** and **ICS 215a** forms agreed upon by all attendees (Command and General Staff). • Update the **ICS 207a** Incident Organization Chart. • Refer to Incident Action Plan Checklist (**A4**) and continue to add to items accomplished. • Schedule and prepare for the Planning Meeting.

Resources:	**ICS 209, 215, 215a, and IAP Checklist (A4)**

Agenda Items:
☐ Review **ICS 209** Incident Status Summary.
☐ Review incident objectives.
☐ Define tactics to complete objectives set out during the Objectives Meeting.
☐ Provide an operational update and identify tactics to deal with incident.
☐ Identify roles and responsibilities that have to be performed to implement tactics.
☐ Build on already established **ICS 207a** Incident Organization Chart, check span-of-control, and match up with **ICS 215** assignments.

Complete the Operational Planning Worksheet, **ICS 215** (Utilize one form for every established objective).
 	
  ☐ Identify work assignments.
  ☐ Identify resources requirements to achieve each work assignment.
  ☐ Identify overhead staffing needs to support each work assignment.
  ☐ Identify specialized equipment and supply needs for each work assignment.
  ☐ Specify reporting times and location for personnel.

Complete the Incident Action Plan Safety Analysis, **ICS 215a**.
 	
  ☐ Identify potential hazard types.
  ☐ Identify mitigations for associated hazard types.

☐ Identify support facilities and locations.
Key Points:
• **Ensure that the meeting is documented / recorded.** (Utilize the back side of this page.)
• Review planned actions against incident objectives and priorities.
• Utilize a map or chart to depict the operational areas, support facilities, and any key information.
• Discuss any applicable open action items.
• Consider contingencies and secondary options.

Owner: Operations Chief	Date:	Time:

Attendees:	
Name	**Role**
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Objectives:

-
-
-
-

Operations

Tactics

-
-
-
-
-

Safety

Mitigations

-
-

Potential Hazards

-
-

Planning

Additional Roles and Responsibilities

-
-

Additional Resources (personnel, equipment, facilities, etc.)

-
-

Recovery

-
-

Next Meeting: Planning Meeting	Date:	Time:

PLANNING MEETING

Planning Meeting Agenda
Summary:
The objectives of this meeting are to: • Finalize an Incident Action Plan with the necessary forms based on the objectives, tactics, and strategies outlined from the previous command meetings. • Schedule and prepare for the Operations Briefing.
Resources: **IAP Checklist (A4) and all associated ICS forms**
Agenda Items:
☐ Review Incident Action Plan forms (**ICS 202, 207a, 209, 215**, and **215a**).
☐ Review Command's incident objectives, priorities, decisions, and direction.
☐ Provide briefing on current situation, resources at risk, weather forecast, and incident projections.

☐ Operations Section Chief provides briefing on:
  ☐ Current operations.
  ☐ An overview on the proposed plan including strategy, tactics or work assignments, resource commitment, contingencies, organization structure, and needed support facilities.

☐ Review the proposed plan to ensure that Command direction, priorities, and operational objectives are met.
☐ Delegate assignments and deadlines to appropriate staff members to assure timely and effective IAP development.
Key Points:
• **Ensure that the meeting is documented / recorded.** (Utilize the back side of this page.)
• Review IAP Checklist (**A4**) to ensure that all critical materials have been accounted for in the IAP.
• Planning Section Chief brings meeting to order, cover ground rules, and review agenda.
• Planning Section Chief requests tacit Command approval of the plan as presented.
• Planning Section Chief reviews and validates responsibility for any open actions and management objectives.
• Planning Section Chief conducts round table of Command and General Staff to solicit their final input and commitment to the proposed plan.

Owner: Planning Chief	Date:	Time:

Attendees:	
Name	**Role**
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Incident Commander

Objectives
-
-
-
-

Key Decisions
-
-

Operations

Tactics
-
-
-
-

Planning

Current Resource Assignments
-
-
-
-

IAP to be completed by	Date:	Time:
Next Meeting: *Operations Briefing*	Date:	Time:
Incident Action Plan Approval	_____ Incident Commander or Director *(signature)*	

OPERATIONS BRIEFING

Operations Briefing Agenda
Summary:
The objectives of this meeting are to: • Review a summary of the incident status with all responders. • Relay objectives, tactics, and strategies. • Reinforce/relay the safety message. • Assign roles & responsibilities and tasks for all responders to accomplish. • Execute the response. • Tentatively schedule next Objectives Meeting and identify potential problems/issues to address in the next operational period.
Resources: **IAP Checklist (A4) and all associated ICS forms**
Agenda Items:
☐ Planning Section Chief briefly walks through the IAP components and makes changes as needed.
☐ Operations Section Chief conducts roll call of the Operation Section Supervisors and provides a briefing on emergency response.
☐ Operations Section Chief briefs supervisory personnel on their assignments along with clarification on any of their issues and concerns.
☐ Safety Officer covers major safety issues.
☐ Logistics Section Chief covers logistical support of operations (communications, supply, transportation, medical, etc).
☐ Finance / Admin. Section Chief covers time & cost tracking, procurement, and compensation process.
☐ General Staff to cover issues applicable to Operations Section personnel.
Key Points:
• **Ensure that the meeting is documented / recorded.** (Utilize the back side of this page.)
• Planning Section Chief opens briefing, covers ground rules, agenda, and conducts roll call of Command and General Staff members.
• Establish a briefing and message for all responders.
• Review pre-determined public and media statements.
• Planning Section Chief solicits final comments and adjourns briefing.

Owner: Incident Commander	Date:	Time:

Attendees:	
Name	**Role**
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☐	

Current Situation:

Agenda Items:

Operations
-

Safety
-

Liaison
-

Legal
-

Planning
-

Finance & Admin
-

Logistics
-

Recovery
-

Information
-

Objectives:
-
-
-
-

EXECUTIVE BRIEFING

Executive Briefing Agenda
Summary:
The objectives of this meeting are to: • Inform the Executive team of the current situation including the current objectives, problems, and constraints.   • Determine policy and strategic direction with the Executive team.

Resources:	**ICS 201 Form, IAP**

Agenda Items:
☐ Set the ground rules for the meeting (i.e. length and purpose of meeting).
☐ Review the ICS 201 Form and IAP.
☐ Highlight current and planned actions against incident priorities and objectives.
☐ Review applicable open action items.
☐ Identify requirements from the Executive team to support incident response and recovery.
☐ Establish timing for next meeting.

Key Points:
• **Ensure that the meeting is documented / recorded.** (Utilize the back side of this page.)
• Be brief but informative.

Owner: Incident Commander	Date:	Time:

Attendees:	
Name	**Role**
☐	
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☐	

Current Situation (review ICS 201 Form and/or IAP):

Agenda Items: (Fill in with current issues and projected actions)

Safety:

Resources:

Regulatory:

Media and Reputation:

Operational Impacts:

Recovery:

Demobilization:

Executive Actions:

SECTION 3: COMMUNICATION AND MEDIA

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MEDIA RELATIONS & GENERIC MEDIA STATEMENT

Any incident that affects the health and safety of individuals, the environment, can be seen by the public, or causes extensive property damage could become a news item and/or gain traction on social media. When such an incident occurs, open and honest communication will provide accurate information, help create favorable public opinion and could help prevent the public from overreacting to the incident.

When an incident first occurs, media may come to site. If an Information Officer (IO) or designate is not available, on-site personnel may be required to read pre-approved statements. They should only read these statements and direct reporters to the contact information provided.

MEDIA STATEMENTS

If you are dealing with a member of the media:
"We are in the early stages of gathering information on this situation. Of utmost priority is the safety and protection of the public and all responders. Information will be available as soon as we know more. Feel free to leave your contact number with me or call our Communications department at 403-766-7751, or email media.relations@cenovus.com."

If you are dealing with a protester:
"If you would like to speak with someone about your concerns, I can contact them for you. However, this facility is private property and trespassers must leave our property immediately."

If you are dealing with someone at a roadblock:
"I am with Cenovus and we have an emergency ahead. This situation is serious enough to warrant restricting access beyond this point and I am asking you to take an alternate route."

Depending on the scope and immediate attention on the incident, the Media Lead/Incident Commander may identify and activate a trained field-based media spokesperson to address media. The Media Lead may also determine that responding to media from Calgary is appropriate. Whether the spokesperson is at site or head office may change throughout the incident.

HOLDING STATEMENTS

A holding statement is the initial information given to the media, either verbally or written – by the media spokesperson or the IO when the spokesperson is unavailable. Any release of information should be coordinated with the Incident Support Team (IST) Communications Officer or designate.

The Communications Officer or designate will draft holding statements and key messages that can be used internally or externally as needed. If a site has an on-site communications advisor acting as the IO they may also draft statements, working with the Communications Officer. Where required, the company coordinates public statements with the relevant government agencies prior to release to provide consistency and accuracy of information.

Public statements developed by the Communications Officer or designate are reviewed by the Incident Commander if they are available and approved by the IST Director and IST legal. Information may be communicated through statements to media, written news releases, news conferences, social media, and/or any other effective means that the company chooses to use. The company has specifically trained and approved spokespeople to carry out this role.

All interactions with the media and information given to the media should be recorded. See the end of this section or SECTION 6: FORMS for the C2 MEDIA CONTACT LOG.

The preliminary statement shall contain:

- What, when, and where the incident occurred:

- State the general nature and description of the incident.

- Associate the incident location to the nearest major centre and the exact time the incident began or was discovered. For example: At 11:00 am, today, March 1, 2024, a fire occurred in a warehouse at our battery location northeast of Wainwright.

- Injuries / fatalities / damages:

- Clearly distinguish the severity of any injuries sustained and if any fatalities occurred.

- State the number of people currently receiving treatment.

- Ensure no names are released to the media; it is important to keep this information private. For example: We have confirmed three employees sustained injuries, two of a minor nature. All three have been transported to the nearest medical facility and are receiving treatment.

- The current status of the emergency:

- Indicate the nature of the situation, i.e., what is being done by whom. For example: Emergency crews currently have the fire under control and the cause will be thoroughly investigated.

- When to expect more information:

- For example: Our spokesperson will be issuing an update once we have more information confirmed.

What not to do:

- Don't downplay the seriousness of the event or speculate on volumes, damage or timelines.

- Don't point fingers; liability will be determined later by appropriate authorities.

- Primary focus must remain on the company's commitment to addressing the response and recovery effort.

ON-SITE MEDIA SPOKESPERSON

Depending on the specific emergency, an on-site spokesperson may be required. Only approved and trained spokespeople will be allowed to provide comment to the media, and this is determined by the Director, Communications or their designate. The IST may send the company media spokesperson to the site to act as the on-scene representative. The on-scene representative will endeavor to maintain a favorable public image on behalf of the company. It is important that they keep in mind the following and, if time allows, go through a practice run with the Media Lead or designate:

- Provide a statement and attempt to avoid any questions, if possible, as designated media personnel should handle all media questions.

- Avoid saying "no comment." It sounds like you're hiding something. If necessary, explain why it is not appropriate or possible for you to answer the question, for example, "that is not my area of expertise" or "I have to get back to the incident."

- How you present yourself; 85% of information comes from non- verbal actions (gestures, tone, posture, etc.).

- Preparation in communicating the statement in advance so the message feels natural.

- Never provide background or "off the record" information to the media. Assume anything you say to a reporter will show up in their story.

Be aware at all times that it is possible for the media or others to hear your radio, cellular phone, or telephone conversations.

MANAGING THE MEDIA ON SITE

Depending upon the size and/or scope of the emergency and its location, the media will likely travel to site to report on the situation. Usually, the size and nature of an emergency will determine the amount of media attention. It is important everyone on site understands how to properly manage the media and that only designated individuals are to speak to the media.

Media Briefing Areas are to be designated by the Incident Commander. The Communications Officer, Media Lead or IO will, if required, determine the need for media management at the incident site.

As appropriate, the Media Lead or IO should be designated to oversee local news media management. In order to address the needs of the media at the incident site, the following guidelines should be considered:

- If practical, an information centre will be set up near the incident site. All on-site media will be informed that this will be the only place where information is to be released.

- During an emergency situation, media access to company property is strictly prohibited unless prior approval has been given by the IST and Incident Commander. If the Incident Commander deems the situation safe and access is granted to company property, media personnel must be accompanied at all times by the Media Lead or IO and wear appropriate personal protective equipment (PPE).

- Ensure that if any media personnel are granted access that all potential hazards are identified and handled appropriately prior their arrival (i.e. all on-site personnel are wearing proper PPE, operating equipment safely, etc.).

- Any requests by the media for information or interviews should be referred to the IO or Communications Officer, who will coordinate with the Media Lead.

- For an emergency that lasts more than 24 hours, consideration will be given to establishing a dedicated room for all required Communications personnel.
    - Ensure it is located a safe distance away from the incident.
    - Ensure proper internet and telephone access is made available.
    - Large enough to accommodate all of the potential communications personnel.

INTERNAL COMMUNICATION

Internal communication plans for company personnel must include:

- Identification of primary and secondary communication methods during an incident.
- Procedures to control flow of information*:
    - Ensure facts and relevant information are distributed to key responders.
    - Proper management of sensitive information.
    - Camera and cellphone photo/video restrictions.
    - Social media protocol.

* Note: These procedures are developed by the Communications Officer and/or IO during the incident.

COMMUNICATING WITH THE PUBLIC

Communication plans for contacting affected parties must be in place:

- When affected parties are within the Hazard Planning Zone (HPZ) / Emergency Planning Zone (EPZ) at the beginning of drilling and initial completion operations.
- A minimum of 24 hours before drilling operations enter a sour zone.
- At the conclusion of drilling and initial completion operations.
- At the beginning and conclusion of other operations including workovers, flaring, fracking, etc.

INFORMATION DISSEMINATED TO THE PUBLIC

The company must make the following information available to the public, while maintaining documentation, as soon as possible during an incident:

- To the affected public at the onset of the incident:
    - Type and status of the incident.
    - Location and proximity of the incident to people in the vicinity.
    - Public protection measures to follow, evacuation instructions, and any other emergency response measures to consider.
    - Actions being taken to respond to the situation, including anticipated time period.
    - Contacts for additional information.

- To the affected public during the incident:
  - Description of the products involved and their short-term and long-term effects.
  - Effects the incident may have on people in the vicinity.
  - Areas impacted by the incident.
  - Actions the affected public should take if they experience adverse effects.
  - An explanation of the steps taken to address concerns.
  - An explanation of the steps to be taken to prevent similar emergencies in the future.

- To the general public during the incident:
  - Type and status of the incident.
  - Location of the incident.
  - Areas impacted by the incident.
  - Description of the products involved.
  - Contacts for additional information.
  - Actions being taken to respond to the situation, including anticipated time period.

- To the evacuated or sheltered public post-incident:
  - Status of recovery.
  - Financial reimbursement information.
  - Contacts for additional information.

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SECTION 4:   EMERGENCY RESPONSE PROCEDURES

PUBLIC PROTECTION MEASURES

There are four primary public protection measures that are used to ensure the safety of the public in the event of an incident: roadblocks, shelter-in-place, evacuation, and ignition.

ROADBLOCKS

Roadblocks will be established to prevent public exposure to the hazard as required. Cenovus or contract personnel will man the roadblocks with possible additional help from mutual aid partners, RCMP, transportation authorities and local authorities.

Roadblocks should be placed in locations that are clearly visible to oncoming traffic and must be positioned to enable traffic to easily turn around. Intersections are good locations for roadblocks. Cenovus must be prepared to establish roadblocks and advise the public.

Each roadblock location should have the following equipment as a minimum:

- Portable gas monitors and / or H_2S monitors, if appropriate, radio communication, road barriers, flares and / or flashing lights, maps, Roadblock Record forms and applicable personal protective equipment etc.

Personnel who are manning roadblock locations that could be exposed to the hazard must be trained in the use of hand-held monitoring equipment and personal protective equipment as appropriate. Personnel who are not trained with this equipment must be restricted to roadblock locations that the Public Protection Supervisor can assure will be in a safe area at all times.

Ideally, Cenovus should receive authorization from local authorities or the RCMP before establishing roadblocks on public roads. In Alberta, Cenovus must contact the RCMP and Alberta Transportation to have a one-, two-, or three-digit highways closed, e.g. Highway 2, Highway 21 or Highway 567; however, if the safety of the public is in jeopardy, Cenovus must be prepared to quickly restrict access to the area before contacting these agencies.

The local authority, e.g. county, municipality, or town, may, if warranted, declare a State of Local Emergency. This State of Local Emergency grants the local authority special powers to do such things as road closures or declare a mandatory evacuation.

The following information should be provided to the RCMP, the transportation / highway authorities, and the local authority when they are contacted:

- The nature, location and extent of the emergency.
- Suggestions where the roadblocks should be located.
- Wind speed and direction.
- Number of people living within the emergency planning zone.

When a railway, highway or navigable watercourse passes through a Cenovus EPZ, any required special response procedures along with the corresponding contact information will be included within the applicable site specific information tab. Contact to these agencies must be initiated to prevent the public and their company personnel exposure to a potential hazard.

Transients and/or industrial operators utilizing pipeline right-of-way will be identified by ground rovers and/or aerial surveillance. All pre-identified industrial operators, potential area users and their contact information is included within the applicable site-specific information tab.

Roadblock Statement
"I am with Cenovus and we have an emergency ahead. This situation is serious enough to warrant restricting access beyond this point and I am asking you to take an alternate route."

SHELTER-IN-PLACE

Shelter-in-place is considered the primary safety measure when the hazard is of a limited duration or the public would be at a higher risk if evacuated. Sheltering within a building creates an indoor buffer to protect affected individuals from higher (more toxic) concentrations that may exist outdoors. The goal is to reduce the movement of air into and out of the building until either the hazard has passed or other appropriate emergency actions can be taken (such as evacuation).

Sheltering indoors is a viable public protection measure in circumstances when:

- There is insufficient time or warning to safely evacuate the public.

- Residents are waiting for evacuation assistance.

- The release will be of a limited size and /or duration.

- The location of the release has not been identified.

- The public would be at a higher risk if evacuated.

- Escape routes traverse the hazards.

Refer to either SECTION 2: ROLES AND RESPONSIBILITIES or SECTION 6: FORMS for the Shelter-in-Place Phone Message script to be used when contacting residents. Residents advised to shelter-in-place will be notified if additional measures are required, and when it is "all-clear".

EVACUATION

For long-term releases, evacuation is preferred to sheltering if public safety can be assured during the evacuation process.

Evacuation is a viable public protection measure in circumstances when:

- The location of the plume is known and safe egress routes can be assured.

- The release will not likely be contained in the near future.

- Visibility and road conditions are good.

- The residents clearly understand their directions.

The regulator expects the licensee to monitor the air quality along the edge of the EPZ to determine if sheltering or evacuation criteria have been met outside the EPZ.

Appropriate methods must be utilized to ensure transients (hunters, trappers, recreational users, non-resident landowners, etc.) within the EPZ are located and evacuated. When a tactical evacuation has taken place, the appropriate local authority must be notified.

Residents should also be evacuated during ongoing emergency flaring or burning if their health and safety could be affected by the operation.

Special procedures may be required for evacuating large industrial operations and/or public facilities. If large numbers of people are involved, the permit holder must address assistance with transportation. Refer to SECTION 8: AREA SPECIFIC INFORMATION for information regarding transportation (e.g., providing school buses) or other changes in the normal notification procedures.

IGNITION

In conjunction with shelter-in-place and evacuation strategies, the release may be ignited at the source in order to reduce public exposure to the hazard. The combustion of the hydrogen sulphide (H_2S) results in the produced sulphur dioxide (SO_2) being carried high into the atmosphere allowing additional time for the public to safely evacuate. If an immediate threat to human life exists and there is not sufficient time to evacuate the hazard area or the Emergency Planning Zone (EPZ) – whichever is bigger – the On-Site Supervisor is authorized to ignite the release.

Note: Only those personnel trained in ignition procedures can determine if ignition is required refer to the regulatory ignition criteria checklist prior to operation of ignition equipment.

Ignition of an HVP product release should occur only after the position of the plume has been established, after careful deliberation, and when safe to do so.

Until such time that a decision has been made to ignite a release, the licensee should take steps to minimize any chance of unplanned ignition in the area.

When making the decision to ignite, the licensee must take the following into consideration:

- the increased risk(s) of delayed ignition,

- whether the perimeter of the hazard area has been established,

- whether the public has been evacuated from the area,

- whether ignition will worsen the situation by endangering the public or the environment or damaging the equipment used to control the product,

- whether wind direction has been established and is it being continually monitored, and

- whether the possibility of an explosion has been assessed (i.e. obstructions or regions of congestion within the perimeter of the dispersing vapour cloud).

If at all possible, the On-Site Supervisor must consult with higher authority individuals within the Company (ideally the Operations Section Chief, Incident Commander, Director, etc.) and the appropriate government regulator.

AIRSPACE CLOSURES

The public must also be prevented from flying into the airspace above a gas release. It may be necessary for NAV CANADA to issue a Notice to Airmen (NOTAM) to advise the pilots of restrictions (aircraft and/or drone) in the airspace above the EPZ or to close the airspace for a certain radius from the release (a no-fly zone). NOTAMs or closure of airspace may be requested by the regulatory agency at a level 2 or level 3 emergency. If an incident occurs that may impact surrounding airspace, please **contact NAV CANADA at 866-992-7433**.

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PUBLIC PROTECTION MEASURES FLOWCHART – AB/SK/MB

Is there potential for the release to impact beyond the lease, facility or pipeline right of way?

No → **No public protection measures required**

Yes →

Do any of the following apply:
- ☐ The release is expected to pass over quickly
- ☐ The public would be at a higher risk if evacuated
- ☐ There is not enough time or warning to safely evacuate the public
- ☐ The source and nature of the release has not been identified
- ☐ The release is an HVP product

No →
Evacuation
- ☐ Begin evacuating the public

Refer to Evacuation Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Yes →
Shelter
- ☐ Begin sheltering the public

Refer to Shelter-in-Place Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Evacuation begins in the IIZ and expands outwards into the PAZ downwind of the release so that members of the public are not exposed to the hazard.

IIZ Initial Isolation Zone
If safe to do so, the licensee must evacuate public from the IIZ.

PAZ Protective Action Zone
Evacuation / Shelter-in-Place all public downwind of the incident

EPZ Emergency Planning Zone
Giving priority to those who have special needs and / or have requested early notification

Modified EPZ Emergency Planning Zone
Any public that are outside the calculated EPZ that may be effected.

Ignition must take place when one of the following conditions have been met:
- ☐ Although required, evacuation of the response zones has not taken place.
- ☐ H$_2$S concentrations in excess of 10 ppm over a 3-minute average in unevacuated parts of the EPZ.
- ☐ H$_2$S concentrations exceed 1 ppm per one hour average in urban density developments.
- ☐ Monitoring is not taking place due to weather or other unforeseen circumstances.
- ☐ The release cannot be brought under control in the short term.

AND
- ☐ Personnel working at the site can be cleared to a safe distance.

Has ignition criteria been met?

No →
- ☐ Continue air monitoring
- ☐ Continue evacuation / shelter procedures

Yes →
Refer to the H$_2$S / HVP Ignition Procedure behind the Public Protection Measures tab in **Section 4: Emergency Response Procedures**

- ☐ Continue air monitoring
- ☐ Continue evacuation / shelter procedures

Is there an urban centre within the EPZ?
Yes → Notify the Municipality and the Health Authority.

Is there potential for the release to impact the public outside of the EPZ?

No →
- ☐ Continue air monitoring
- ☐ Continue evacuation / shelter procedures in the EPZ

Yes →
- ☐ Work with local authority to determine the need for evacuation / shelter outside of the EPZ
- ☐ Continue air monitoring

Evacuation Requirements
Revised March 2021

For a sour gas release, the licensee must continuously assess and act on the need to expand the evacuation area based on the monitored levels of H$_2$S and SO$_2$. In the absence of monitored readings, responders should advise the residents to Shelter-in-Place.

H$_2$S Requirements

1 to 10 ppm (3 minute average)	Individuals who requested notification so that they can voluntarily evacuate before any exposure to H$_2$S must be notified.
Above 10 ppm (3 minute average)	Local conditions must be assessed and all persons must be advised to evacuate and/ or shelter

* If monitored levels over the 3 minute interval are declining (i.e., three readings show a decline from 15 ppm to 10 ppm to 8 ppm over 3 minutes), evacuation may not be necessary even though the average over the 3 minute interval would be 11 ppm. Licensees should use proper judgement in determining if evacuation is required.

SO$_2$ Requirements

0.3 ppm (24-hour average)	Immediate evacuation of the area must take place.
1 ppm (3-hour average)	
5 ppm (15-minute average)	

PUBLIC PROTECTION MEASURES FLOWCHART - BC

Is there potential for the release to impact beyond the lease, facility or pipeline right of way?

No → Continue with control / containment measures

Yes ↓

Do any of the following apply:
- ☐ The release is expected to pass over quickly
- ☐ The public would be at a higher risk if evacuated
- ☐ There is not enough time or warning to safely evacuate the public
- ☐ The source and nature of the release has not been identified
- ☐ The release is an HVP product

No ↓ | **Yes** ↓

Evacuation
- ☐ Begin evacuating the public

Shelter
- ☐ Begin sheltering the public

Refer to Evacuation Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Refer to Shelter-in-Place Phone Message in either **Section 2: Roles and Responsibilities** or **Section 6: Forms**

Evacuation begins closest to incident and expands outward downwind of the release so that members of the public are not exposed to the hazard.

Closest to Incident
If safe to do so, the licensee must evacuate public closest to the incident.

Downwind
Evacuation / Shelter-in-Place all public downwind of the incident

HPZ
Hazard Planning Zone
Giving priority to those who have special needs and / or have requested early notification

Modified HPZ
Hazard Planning Zone
Any public that are outside the calculated HPZ that may be effected.

Ignition must take place when one of the following conditions have been met:
- ☐ Although required, evacuation of the response zones has not taken place.
- ☐ H_2S concentrations in excess of 10 ppm over a 3-minute average in unevacuated parts of the EPZ.
- ☐ H_2S concentrations exceed 1 ppm per one hour average in urban density developments.
- ☐ Monitoring is not taking place due to weather or other unforeseen circumstances.
- ☐ The release cannot be brought under control in the short term (ignition decision will be made by Incident Commander. Notify Regulatory Agency intention to ignite.
                          AND
- ☐ Personnel working at the site can be cleared to a safe distance.

Has ignition criteria been met?

No ↓ | **Yes** ↓

Is there an urban centre within the HPZ?

Yes ↓

Notify the Municipality and the Health Authority.

Refer to the H_2S / HVP Ignition Procedure behind the Public Protection Measures tab in **Section 4: Emergency Response Procedures**

- ☐ Continue air monitoring for H_2S
- ☐ Continue evacuation / shelter procedures

- ☐ Continue air monitoring for SO_2
- ☐ Continue evacuation / shelter procedures

HPZ
Closest to Incident
Downwind
Wind Direction
Plume Direction
Incident

Is there potential for the release to impact the public outside of the HPZ?

No ↓ | **Yes** ↓

- ☐ Continue air monitoring for H_2S or SO_2
- ☐ Continue evacuation / shelter procedures in the HPZ

- ☐ Work with local authority to determine the need for evacuation / shelter outside of the HPZ
- ☐ Continue air monitoring for H_2S or SO_2

Note: Evacuation outside the HPZ is based on air monitoring readings and not the level of emergency.

Notification and Evacuation Requirements Outside of the HPZ

For a sour gas release, the licensee must continuously assess and act on the need to expand the evacuation area based on the monitored levels of H_2S and SO_2. In the absence of monitored readings, responders should advise the residents to Shelter-in-Place.

H_2S Requirements	
1-10 ppm	Individuals who requested notification so that they can voluntarily evacuate before any exposure to H_2S or SO_2 must be notified.
10 ppm and above (1-hour average)	Local conditions must be assessed and all persons must be advised to evacuate and/or shelter.

Note: H_2S Evacuation Level – when downwind monitoring at the nearest unevacuated residence, outside the Hazard Planning Zone, indicates a level of 10 ppm, evacuation procedures will be initiated if safe to do so.

SO_2 Requirements	
1-5 ppm	Individuals who requested notification so that they can voluntarily evacuate before any exposure to H_2S or SO_2 must be notified.
5 ppm and above	Local conditions must be assessed and all persons must be advised to evacuate and/or shelter.

Revised March 2021

H₂S / HVP IGNITION PROCEDURE

H₂S / HVP Ignition Procedure

Pre-Ignition Considerations – On-Site Supervisor

When making the decision to ignite, the licensee must take the following into consideration:

Hydrogen Sulphide (H₂S)

- ☐ Proximity to residences, public facilities, towns or urban centres.
- ☐ Risk of exposure / injury to the public or response workers.
- ☐ Status of evacuation.
- ☐ Wind conditions and general topography.
- ☐ Fire hazard after ignition in relation to adjacent forested or cropland area.
- ☐ Safety of the Ignition Team (hazard area identification, protective gear).

High Vapour Pressure (HVP)

- ☐ The increased risk(s) of delayed ignition.
- ☐ Whether the perimeter of the hazard area has been established.
- ☐ Whether the public has been evacuated from the area.
- ☐ Whether ignition will worsen the situation by endangering the public or the environment or damaging the equipment used to control the product.
- ☐ Whether wind direction has been established and is being continually monitored.
- ☐ Whether the possibility of an explosion has been assessed (i.e., obstructions or regions of congestion within the perimeter of the dispersion vapour cloud).
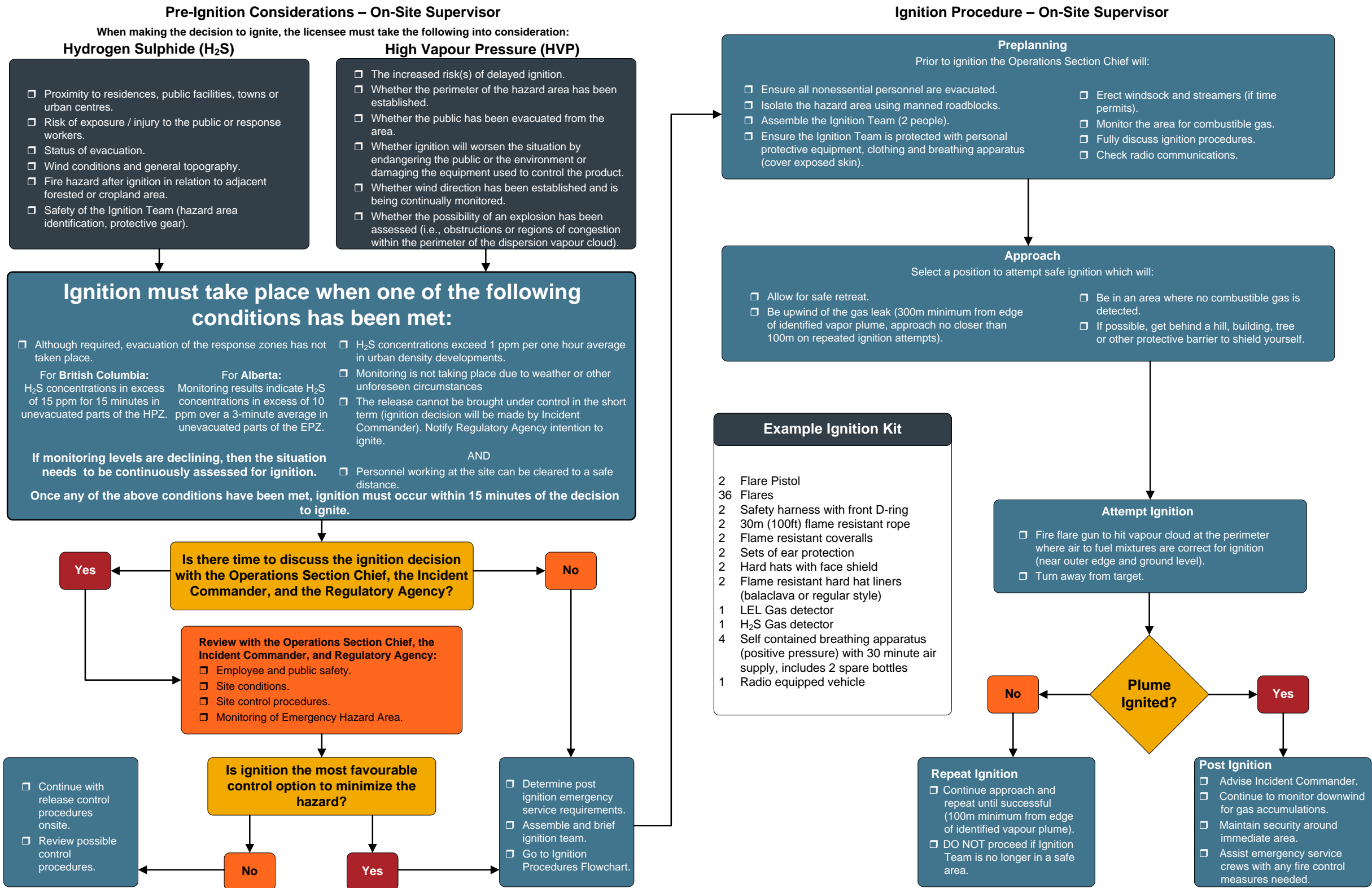
Ignition must take place when one of the following conditions has been met:

- ☐ Although required, evacuation of the response zones has not taken place.

For British Columbia:
H₂S concentrations in excess of 15 ppm for 15 minutes in unevacuated parts of the HPZ.

For Alberta:
Monitoring results indicate H₂S concentrations in excess of 10 ppm over a 3-minute average in unevacuated parts of the EPZ.

If monitoring levels are declining, then the situation needs to be continuously assessed for ignition.

- ☐ H₂S concentrations exceed 1 ppm per one hour average in urban density developments.
- ☐ Monitoring is not taking place due to weather or other unforeseen circumstances
- ☐ The release cannot be brought under control in the short term (ignition decision will be made by Incident Commander). Notify Regulatory Agency intention to ignite.

AND

- ☐ Personnel working at the site can be cleared to a safe distance.

Once any of the above conditions have been met, ignition must occur within 15 minutes of the decision to ignite.

Yes

No

Is there time to discuss the ignition decision with the Operations Section Chief, the Incident Commander, and the Regulatory Agency?

Review with the Operations Section Chief, the Incident Commander, and Regulatory Agency:
- ☐ Employee and public safety.
- ☐ Site conditions.
- ☐ Site control procedures.
- ☐ Monitoring of Emergency Hazard Area.

- ☐ Continue with release control procedures onsite.
- ☐ Review possible control procedures.

Is ignition the most favourable control option to minimize the hazard?

No

Yes

- ☐ Determine post ignition emergency service requirements.
- ☐ Assemble and brief ignition team.
- ☐ Go to Ignition Procedures Flowchart.

Ignition Procedure – On-Site Supervisor

Preplanning
Prior to ignition the Operations Section Chief will:

- ☐ Ensure all nonessential personnel are evacuated.
- ☐ Isolate the hazard area using manned roadblocks.
- ☐ Assemble the Ignition Team (2 people).
- ☐ Ensure the Ignition Team is protected with personal protective equipment, clothing and breathing apparatus (cover exposed skin).
- ☐ Erect windsock and streamers (if time permits).
- ☐ Monitor the area for combustible gas.
- ☐ Fully discuss ignition procedures.
- ☐ Check radio communications.

Approach
Select a position to attempt safe ignition which will:

- ☐ Allow for safe retreat.
- ☐ Be upwind of the gas leak (300m minimum from edge of identified vapor plume, approach no closer than 100m on repeated ignition attempts).
- ☐ Be in an area where no combustible gas is detected.
- ☐ If possible, get behind a hill, building, tree or other protective barrier to shield yourself.

Example Ignition Kit

2	Flare Pistol
36	Flares
2	Safety harness with front D-ring
2	30m (100ft) flame resistant rope
2	Flame resistant coveralls
2	Sets of ear protection
2	Hard hats with face shield
2	Flame resistant hard hat liners (balaclava or regular style)
1	LEL Gas detector
1	H₂S Gas detector
4	Self contained breathing apparatus (positive pressure) with 30 minute air supply, includes 2 spare bottles
1	Radio equipped vehicle

Attempt Ignition

- ☐ Fire flare gun to hit vapour cloud at the perimeter where air to fuel mixtures are correct for ignition (near outer edge and ground level).
- ☐ Turn away from target.

No

Plume Ignited?

Yes

Repeat Ignition
- ☐ Continue approach and repeat until successful (100m minimum from edge of identified vapour plume).
- ☐ DO NOT proceed if Ignition Team is no longer in a safe area.

Post Ignition
- ☐ Advise Incident Commander.
- ☐ Continue to monitor downwind for gas accumulations.
- ☐ Maintain security around immediate area.
- ☐ Assist emergency service crews with any fire control measures needed.

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SPILL RESPONSE

SPILL RESPONSE GUIDELINES

This section provides basic hydrocarbon spill response guidelines. For greater detail, refer to any applicable Geographic Response Plan, the Western Canada Spill Services (WCSS) manuals, applicable Safety Data Sheets (SDS) and the Emergency Response Assistance Canada (ERAC) Plan. Refer to the Petroleum Industry Release Reporting Requirements chart at the beginning of this section to determine the TDG and Provincial Reporting Requirements for each class of chemicals (as classified by the TDG Hazard Classification System).

Initial Response Actions:
- Determine the Level of Emergency using the Assessment Matrix in **Section 1: Initial Response**.
- Determine spilled substance. If it can be classified as an LPG release, isolate the area to a minimum distance of 1600 meters (1 mile) and refer to the BLEVE portion of the fire / explosion section.
- Assess spill hazards and risks. Determine what PPE will be required.

Considerations:
- Are there any nearby public (workers, traffic, residents) that would need to be evacuated or diverted from the spill area?
- Is there a fire or explosion hazard? What is the ignition source?
- Is there H_2S or other toxins present? Are concentrations safe or is additional PPE needed?
- Are there any areas deemed hazardous? (Mark with flags)
- What are the ground and weather conditions? (Snow, gravel, sand etc.)
- Where is the location of the leak, the type of release and the volume released? Is it reportable? Has it been reported to the regulator?
- How long has the spill been taking place?
- Are air monitoring trailers required?
- Is the spill into a watercourse, watershed or a water body?
- Is the spill contained or migrating? Which direction? How far can it go?
- If the spill is not contained, determine and prioritize the containment points and methods to be used.
- What lands or water bodies may be affected? (Farm, livestock, brush, drinking water, etc.)
- How is it going to be contained and cleaned up?
- How to access the spill site, the source of the spill and recovery points?
- What equipment is required? Is oil spill equipment (oil spill co-op) required?
- Where can spill responders park so as not to interfere with spill equipment? (Minimize vehicular traffic as much as possible at the spill site.)
- Are there any residences in the area? Do they have water wells that could be affected?
- Should the spill site be cordoned off to prevent wildlife / livestock from entering?
- Will a media response be required?

Control/Containment

- Remove all sources of ignition.

- Stop the spill if safely possible (e.g. shut off pump, replace cap, tip drum upward, patch leaking hole). Use the contents of the nearest spill kit to aid in stopping the spill if it is safe to do so.

- Assess speed and direction of spill and cause of movement (water, wind and slope).

- Use contents of spill kits to place sorbent materials on the spill, or use shovel to dig to contain spill. Methods may vary depending on the nature of the spill.

- Prioritize and set up containment points.

- Where possible, prevent a spill from entering a watercourse.

- Have a contingency plan ready in case spill worsens beyond control or if the weather or topography impedes containment.

- Avoid excessive walking or driving on the spill area.

- Consider ground disturbance guidelines.

- Surface run off may have to be diverted from the spill site if wet conditions are present.

- Mitigate or eliminate any danger to life, health, the environment or property arising from the spill.

- Ensure the health and safety of the persons responding to the spill.

- Once containment has been achieved, recovery and clean-up operations begin immediately.

- Recover as much product and saturated debris as possible.

- Keep environmental disturbance to a minimum.

- Take steps to rehabilitate any land affected by the spill.

- Take steps to prevent the occurrence of a similar spill.

External Notifications

- Follow notification procedures outlined at the beginning of this section as per the applicable provincial Petroleum Industry Release Reporting Requirements chart.

- Contact the applicable spill service (as outlined in the table below) to determine the closest available spill equipment and towing requirements. See contact information below:

British Columbia	Western Canadian Spill Services (WCSS)	866-541-8888
Alberta	Western Canadian Spill Services (WCSS)	866-541-8888
Saskatchewan	Saskatchewan Oil Spill Cooperative or Western Canadian Spill Services (WCSS)	See Website or 866-541-8888
Manitoba	MEP Environmental Products	204-632-4118

SPILL CONTROL POINTS

Control points are pre-identified locations on watercourses or waterbodies that allow for the staging and deployment of oil spill containment and recovery equipment in response to oil spills that have occurred upstream of the control point. Control point selection is critical to an effective oil spill response and part of your risk assessment and development of site-specific emergency response plan information. For a detailed list of control points utilize the WCSS website (http://www.wcss.ab.ca). Note the WCSS operates in Western Canada only (BC, AB, SK). Refer to Cenovus Geographic Response Plan(s) for information related to control points, access points, boat launches, and execution of equipment if applicable to your area.

An ideal control point should have:

- Quick access to the watercourse in all seasons, using clear ground, a road or a trail.
- Adequate workspace to conduct operations and to store required equipment with minimal need for clearing of brush and vegetation.
- Sufficient space to deploy containment and recovery equipment quickly with minimal effort or obstructions (i.e. trees, rocks, steep banks, etc.) and minimal environmental impact.
- Boat launch location(s) for boats assisting in containment and recovery operations.

Selection of control points with public access is preferred.

For control points on private property - landowner approval and necessary permits for emergency access should be obtained in advance. To interact with a property landowner, please refer to 'Boundary Map – Surface Land Contacts' map in Section 7: Appendices, page 7-43 and reach out to the appropriate Cenovus personnel to start the engagement process.

ACTION

Where a spill occurs, the person who had possession immediately before the spill shall take all reasonable and practical action. They should have due regard for the safety of the public, themselves, to stop and contain and minimize the effects of the spill.

Provincial oil and gas regulations require operators to take immediate steps to contain and clean up spilled petroleum product. Petroleum product refers to crude oil, salt water, emulsions, condensates, sour gas natural gas liquids and / or any combination of the materials listed that are generated during exploration and production activities.

RECOVERY TECHNIQUES

There are two basic means of stopping or controlling the flow of petroleum products on a stream, river, or pond/lake. These include deploying a boom or a dam. If the stream or river if relatively large, booms are used. A dam may be constructed across the channel of a small stream with a low flow.

If a stream or river is to be boomed, the appropriate equipment can be sourced from Cenovus equipment on or near the spill location, a local spill cooperative, or mutual aid partners. Decisions must incorporate the following considerations:

- Width of stream or river to be boomed (where possible, the entire river width should be boomed)

- Allowable boom angle based on stream or river current and length of boom required

- Anchoring methods for the booms

- Methods to lay out and deploy a boom

If a dam is to be constructed across the stream, some allowance must be made for the flow of water past the dam. The Western Canadian Spill Services plan or Geographic Response Plan (GRP) provides detailed information about oil spill containment and recovery.

CONTAINMENT AND STORAGE OF PRODUCT

When commercial barriers are not suitable or available, particularly in remote areas, barriers must be improvised. Improvising depends on the materials at hand and the situation in which the spill occurred. In each case, the experience and innovative ability of the personnel at the spill site is needed for the successful containment of the oil spill.

Tank trucks, storage tanks or an earthen pit may be used to store recovered petroleum products. Access must be close enough to the recovery site so that hoses from the pumps can reach a tank truck. Storage tanks must be located on level, stable ground with access available for tank truck use. An earthen pit should only be constructed when tank trucks or storage tanks cannot be used. Earth-moving equipment and appropriate ground disturbance procedures will be required to construct a pit. A plastic lining should be used.

DISPOSAL AND REMEDIAL OPERATIONS

Disposal of the product and site restoration actions will be determined for each site by consultation among operations personnel, the provincial environmental protection agency or other environmental regulators and any external contracted professional environmental consultants.

It is the company's responsibility when reporting a release to the regulatory agency or the Ministry of Environment (as appropriate) to inform any private individuals whose lands may be affected by the release. The company must notify the landowner of any release that occurs off a lease site, migrates off a lease site or occurs on an easement or right-of-way. The company is reminded that landowner cooperation is essential in being able to quickly respond to a release that is not on the normal working area of a lease site.

WESTERN CANADIAN SPILL SERVICES (WCSS)

WCSS maintains spill contingency plans and provides spill response equipment to all member companies.

WCSS - http://www.wcss.ab.ca/

PIPELINE RELEASE

In oilfield gathering systems, gas pipelines and produced oil or emulsion pipelines may have common elements in the response issues associated with leaks in that they each may carry some portion of oil, gas and water. The primary difference between these lines is the relative portion of the oil, gas and water contained in the lines. Gas lines are predominately gas filled and may include limited amounts of hydrocarbon liquids or water. Oil and emulsion lines have larger portions of liquids and water in them. Either way, an incident involving pipelines in a gathering system may require response actions that address the following:

- Downwind hazards associated with pipeline systems carrying sour gases.

- Hazards associated with ignition of the gas or associated liquids.

- Environmental impact of the release.

- Toxicity issues of the gases or liquids.

- Containment of spilled liquids near the leak.

Pipelines downstream of processing facilities generally, but not always, transport single phase gas or single-phase liquids and the response issues tend to be more singularly focused. Regardless of the pipeline system, it is paramount for the responders to have a clear understanding of the gas or effluent that is being transported through the pipeline systems so that they understand the hazards and can properly lay out appropriate Response Objectives.

Leak Analysis – Gas Pipelines and High Gas-Liquid-Ratio Oil/Emulsion Lines
A moderate to large leak in a mainline is indicated by one or a combination of the following:

- A rapid or noticeable drop in pipeline pressure.

- Low-pressure alarms or shutdowns are triggered.

- Significant noise caused by the depressurization of the gas across the leak.

- Downwind LEL monitors pick up hydrocarbon gas levels.

- Downwind H_2S monitors pick up sour gas levels or sour gas odours are identified by the public or workers.

- An easily observable loss of pressure in a pipeline section after shutdown / closure of block valves.

- Significant staining of ground or collection of liquid on ground or on surface of free water.

- An observable cloud emanating from the pipeline.

A small leak in the mainline system is indicated by one or a combination of the following:

- Mild or moderate staining of ground or collection of liquid on ground or on surface of free water.

- Constant gas bubbling to water surface.

- Localized stress of vegetation along the pipeline right of way.

- A slow but continuing loss of pressure in a pipeline section after shutdown and closure of block valves, which may take some time to confirm the pressure loss.

- H_2S or LEL levels are measured in proximity to the pipeline right of way.

A very small leak might require extensive and prolonged investigation to locate.

Leak Analysis – Liquid Pipelines

A moderate to large leak in a mainline is indicated by:

- A decrease in delivered volume rate without change in pumping rate.

- An unexplained negative balance between in and out volumes of the pipeline system.

- An unexplained decrease in the operating line pressure.

- An easily observable loss of pressure in a pipeline section after shutdown and closure of block valves.

- Staining of ground or collection of liquid on ground or on surface of free water.

A small leak in the mainline system is indicated by:

- A consistent loss in the volumetric balance on hourly, daily, monthly basis.

- A slow but continuing loss of pressure in a pipeline section after shutdown and closure of block valves, which may take some time to confirm the pressure loss.

- Staining of ground or collection of liquid on ground or on surface of free water.

A very small leak might require extensive and prolonged investigation to locate.

Alberta Petroleum Industry
Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Agency	Reportable Spills	Report Type	Report to
Alberta Energy Regulator (AER) - Oil & Gas Regulation	1) Any release that has caused, is causing, or may cause an adverse affect* 2) Any pipeline release regardless of volume 3) Any release greater than 2m³ on-site 4) Any release off-site 5) Any release into a water body (as defined in the *Water Act*) or a watercourse, groundwater, or surface water (as stated in the *Release Reporting Regulation*) 6) Any spill while substance is being transported from a well or facility to the intended destination. 7) Any release of substance listed as toxic, prohibited or restricted by CEPA 8) Any release that meets or exceeds the reporting threshold in the Environment Reporting Requirements column in the **Release Reporting Thresholds** table on the following page. Note: The AER Table of Reportable Releases found below further breaks down release types by industry activity.	Verbal	AER 24 Hour Number 800-222-6514
Alberta Energy Regulator (AER) - Environment Regulation		Written	Next business day following verbal report of spill, the AER forwards a copy of the Release Report form to the company to complete. The form is to be submitted with supporting documentation within 7 days to the local field centre (if the release caused adverse affect)*

Canadian Environmental Protection Agency (CEPA)	Environmental emergencies if:
	1) The emergency involves any of the substances identified in Environment & Climate Change Canada's E2 List of regulated substances. See the website link at the bottom of the following page for more information.
	Note: CEPA has not identified specific reporting thresholds; however, CEPA has suggested that existing provincial reporting thresholds or TDG reporting thresholds are acceptable for use.
	A Schedule 8 written report through SWIM must be completed in the case of:
	1) An environmental emergency involving the release of a hazardous substance that:
	  a) Has or may have an immediate or long-term harmful effect on the environment
	  b) Constitutes or may constitute a danger to the environment on which human life depends
	  c) Constitutes or may constitute a danger in Canada to human life or health
	2) The reasonable likelihood of an occurrence of an environmental emergency
		Verbal	AER 24 Hour Number
			800-222-6514

		Written	As soon as possible, submit a Schedule 8 through the SWIM (Single Window Information Manager) system
Alberta Environmental and Dangerous Goods Emergencies (EDGE)	Substances regulated by Transportation of Dangerous Goods if: 1) A release is anticipated, or the release meets or exceeds the reporting threshold in the TDG Reporting Requirements column in the **Release Reporting Thresholds** table on the following page.	Verbal	911 Local Authority Environmental and Dangerous Goods Emergencies (EDGE)
Canadian Transport Emergency Centre (CANUTEC)	Loss and theft reporting: 1) CANUTEC - all loss or theft of dangerous goods materials 2) Natural Resources Canada Inspector - Class 1 explosive materials only 3) Canadian Nuclear Safety Commission - Class 7 radioactive materials only	Verbal	1) 888-226-8832 or 613-996-6666 2) 613-995-5555 3) 613-995-0479
		Written	Within 30 days
Department of Fisheries and Oceans (DFO)	1) A release of any substance deleterious to fish into a fish bearing water body	Verbal	AER 24 Hour Number 800-222-6514
Canada Energy Regulator (CER) & Transportation Safety Board (TSB)	Immediately reportable and near-miss events as defined in the Event Reporting Guidelines: 1) An incident that harms people or the environment, 2) A rupture, or 3) A toxic plume Note: Immediately reportable incidents must be reported within 3 hours to both the TSB Reporting Hotline and CER's OERS. If applicable, refer to the Federal Roles & Responsibilities chart in SECTION 5: EXTERNAL AGENCIES and the CER site section behind the AREA SPECIFIC INFORMATION tab for further regulations, definitions and reporting guidelines.	Verbal	Via Transportation Safety Board (TSB) Reporting Hotline 819-997-7887
		Written	PipelineNotifications@tsb.gc.ca
		Written	CER Online Event Reporting System (OERS) https://apps.cer-rec.gc.ca/ers/home/index
		Written	CER - Within 21 days after the day of incident/near-miss
		Written	TSB - Within 30 days after the day of the incident/near-miss
Canadian Nuclear Safety Commission (CNSC)	All radioactive releases must be reported immediately.	Verbal	613-995-0479
		Written	Within 21 days
Indian Oil & Gas (IOGC)	Immediately reportable events on First Nation reserve lands only: 1) Any health or environment-threatening emergency or off-lease spills. 2) On-lease spills greater than 1m³.	Verbal	IOGC Tsuu T'ina Office 403-292-5625

Note: Spills must be reported promptly to avoid possible prosecution.

Lead Agency Contact Numbers

Alberta	
Alberta Energy Regulator (AER)	
Spill Reporting Line	800-222-6514
Canada	
Alberta Environmental and Dangerous Goods Emergencies (EDGE)	
Province Wide	800-272-9600
CANUTEC	
All Provinces	888-CAN-UTEC (888-226-8832) 613-996-6666
Canada Energy Regulator (CER) / Transportation Safety Board of Canada (TSB)	
TSB Reporting Hotline (Pipelines)	819-997-7887

* Definition of Adverse Affect

Is defined by the Environmental Protection & Enhancement Act (EPEA) as "impairment of or damage to the environment, human health or safety, or property."

For the purpose of reporting, the industry shall use the following guidelines to assess whether the release may cause, is causing or has caused an adverse affect.

- Any third party impact (off-lease), e.g. crop damage, vegetation damage or livestock impact
- Unrecovered spilled substance likely to contaminate surface or groundwater
- Contaminated groundwater and / or surface water
- Release or spill has potential for offsite odour complaints
- Toxic or flammable release to air going off-site

AER Table of Reportable Releases

Reportable Release	Oil & Gas	Mining - Oil Sands	In Situ - Oil Sands	Pipelines	Pipeline Installations	Pipeline-Related Activities & Equipment
Any leak or break from a pipeline				X		
Release of a substance that has caused, is causing, or may cause an adverse effect	X	X	X	X	X	X
Release of a substance into a water body (as defined in the *Water Act*)	X	X	X	X	X	X
Release of a substance into a watercourse, groundwater, or surface water (as stated in the *Release Reporting Regulation*)	X	X	X	X	X	X
Release of oil, water or unrefined product off-site	X	X	X	X	X	X
Release of oil, water, or unrefined product exceeding 2 cubic metres (m³) on-site	X	X	X	X	X	X
A liquid spill (as defined in the *Oil Sands Conservation Rules*)		X	X			
Release of a liquid hydrocarbon exceeding 2 m³			X	X	X	X
Uncontrolled gas release of more than 30,000 m³	X	X	X	X	X	
Release of gas or gas equivalent exceeding 30,000 m³		X	X	X	X	
Well flowing uncontrolled	X	X	X			

See following page for spill / release quotas.

Alberta Petroleum Industry
Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Chemical Class	Substance / Example	T.D.G. Reporting Requirements		Alberta (AER) Reporting Requirements
		Road, Rail or Marine	Loss or Theft	
Other Released Substances	Hydraulic Oil	No TDG Reporting Requirements		Refined products follow TDG requirements
	Methanol	See Class 3 & 6.1		
	Natural Gas	See Class 2.1		30,000 m³
	Crude Oil / Emulsion (Unrefined)	See Class 3		> 2 m³ on-site
	Produced / Salt Water (Unrefined)	No TDG Reporting Requirements		
	Condensate (Unrefined)	See Class 3		Any release off-site (Report to AER and notify landowner)
	Bitumen (Unrefined)			
	Ammonia	No TDG Reporting Requirements		Any release that has caused, is causing, or may cause an adverse effect
	Glycol			
	Drilling Waste (Unrefined)			Any release into a water body, or a watercourse, groundwater, or surface water
	Oilfield Waste (Unrefined)			
Class 1 Explosives	Ammunition Nitro-glycerine	Any quantity of Packing Group II	Any quantity in Class 1.1, 1.2, and 1.3 Total quantity of 450 kg or more in Class 1.4 (except 1.4S), 1.5, or 1.6	All releases which could pose a danger, or 50 kg
Class 2.1 Flammable Gases	H₂S Methane Propane Butane Natural Gas	Any quantity	Total quantity of 450 kg or more	All releases which could pose a danger, or any sustained release of 10 minutes or more
Class 2.2 Non-Flammable Gases	Compressed Air O₂ N₂ CO₂		No TDG Reporting Requirements	30,000 m³
Class 2.3 Toxic Gases (poisonous or corrosive)	H₂S SO₂ Hydrogen Cyanide Nitric Acid Anhydrous Ammonia		Any quantity	All releases which could pose a danger, or any sustained release of 10 minutes or more
Class 3 Flammable Liquids	Gasoline Diesel Methanol Demulsifiers Scale Inhibitors Lube Oil	Any quantity of Packing Group I or II More than 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1261, Nitromethane	> 2m³ on-site > 200 L on land Any release that has caused, is causing, or may cause an adverse effect Any release into a water body, or a watercourse, groundwater, or surface water
Class 4.1 Flammable Solids	Calcium Resinate Naphthalene Crude		Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1357, Urea Nitrate, with not less than 20% water, by mass; UN3370, Urea Nitrate, Wetted, with not less than 10% water by mass	> 25 kg on land Any release that has caused, is causing, or may cause an adverse effect Any release into a water body, or a watercourse, groundwater, or surface water
Class 4.2 Spontaneously Combustible	Activated Carbon Potassium Sulphide Phosphorus		Total quantity of 450 kg or more in Packing Groups I or II	
Class 4.3 Dangerous when Wet	Molten Sulphur Calcium Carbide Sodium Activated Carbon		Total quantity of 450 kg or more in Packing Groups I or II	
Class 5.1 Oxidizing Substances	Calcium Nitrate Ammonium Nitrate Bleaches		Total quantity of 450 kg or more in Packing Groups I or II Any quantity of UN1485, Potassium Chlorate; UN1486, Potassium Nitrate; UN 1487, Potassium Nitrate and Sodium Nitrate Mixture; UN1489, Potassium Perchlorate; UN1495, Sodium Chlorate; UN1498, Sodium Nitrate; UN1499 Sodium Nitrate and Potassium Nitrate Mixture; UN1511, Urea Hydrogen Peroxide; UN1942 Ammonia Nitrate, with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substances; UN2014 Hydrogen Peroxide, Aqueous Solution with not less than 20% but not less than 60% hydrogen peroxide (stabilized as necessary); UN2015, Hydrogen Peroxide, Stabilized; UN2031, Nitric Acid, other than red fuming; UN3149, Hydrogen Peroxide and Peroxyacetic Acid Mixture with acid (s), water and not more than 5% peroxyacetic acid, stabilized	> 50 kg or 50 L on land Any release that has caused, is causing, or may cause an adverse effect Any release into a water body, or a watercourse, groundwater, or surface water
Class 5.2 Organic Peroxides	Methyl Ethyl Ketone Peroxide Succinic Acid Peroxide		Any quantity in Class 5.2, Type B, liquid or solid, temperature controlled	1 kg or 1 L
Class 6.1 Poisonous Toxic Substances	Arsenic Lead Acetate Mercuric Chloride Mercuric Oxide Methanol Toxic Pesticides		Any quantity of Packing Group I	> 5 kg or 5 L on land Any release that has caused, is causing, or may cause an adverse effect Any release into a water body, or a watercourse, groundwater, or surface water
Class 6.2 Infectious Substances	Infectious Substances affecting Humans / Animals	Any quantity of Category A or B	Any quantity	All releases
Class 7 Radioactive Substances	Uranium Plutonium Naturally Occurring Radioactive Materials (N.O.R.M.)	For packages being transported under exclusive use: (i) 10 mSv/h on the external surface (ii) 2 mSv/h on the surface of the conveyance, and (iii) 0.1 mSv/h at a distance of 2 m from the surface For packages not being transported under exclusive use: (i) 2 mSv/h on the external surface (ii) 0.1 mSv/h at a distance of 1 m from the package, (iii) 2 mSv/h on the surface of the conveyance, and (iv) 0.1 mSv/h at a distance of 2 m from the surface of the conveyance.	Any quantity	Discharge or radiation level exceeding 10 mSv/h at package surface & 200 u Sv/h, 1 m from the package surface
Class 8 Corrosives	Acids Bases Batteries Caustic Amine	Any quantity of Packing Group I or II 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more in Packing Group I or II Any quantity of UN1796, Nitrating Acid Mixture with more than 50% nitric acid; UN1826, Nitrating Acid Mixture, Spent, with more than 50% nitric acid; UN2032, Nitric Acid, Red Fuming	> 50 kg or 50 L on land Any release that has caused, is causing, or may cause an adverse effect Any release into a water body, or a watercourse, groundwater, or surface water
Class 9 Miscellaneous Products, Substances & Organisms, Environmentally Hazardous Substances	P.C.B. Asbestos	30 L or 30 kg of Packing Group II or III, or without Packing Group	No TDG Reporting Requirements	25 kg or 25 L
Other		Any well flowing uncontrolled, any burning of effluent from a well or facility and any fire where loss exceeds 2m³ of oil, or 30,000m³ of gas where damage to well head occurs		

For all other reportable substances/quantities, please refer to company SDS sheets for more information.

List of Environment & Climate Change Canada's E2 Regulated Substances: http://gazette.gc.ca/rp-pr/p2/2019/2019-03-06/html/sor-dors51-eng.html

British Columbia Petroleum Industry Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Agency	Reportable Spills	Report Type	Report to
Emergency Management and Climate Readiness (EMCR) **BC Energy Regulator (BCER)**	Report when: 1) If a spill/release occurs or is at imminent risk of occurring. 2) Any Minor Incident through KERMIT. ****See Note**** 3) When a sour gas product is released, any measurement of 10 ppm or greater measured at 1 metre from the source of the leak. 4) All spills or releases of any amount of material which impacts or may impact a body of water. 5) All spills or releases of hazardous substances which are not provincially regulated (such as radioactive substances). 6) All pipeline incidents, such as spills during construction phase or failure (without release) of any pressure control or ESD device. 7) All Substances spilled/released, or likely to be spilled/released when quantities are equal to or exceed the quantities listed in the Environment Reporting Requirements column in the **Release Reporting Thresholds** table on the following page. Response to land based spills: 1) During the day must be initiated within 6 hours from time of discovery. 2) During the weekend or night must be initiated within 12 hours from time of discovery.	Verbal	24 Hour Number 800-663-3456 (Within 1 hour of a level 1, 2 or 3 emergency)
		Written	Electronic submission through the Online Minor Incident Reporting System, operated through KERMIT (Within 24 hours of a Minor incident)
		Written	**Minister of Environment** **Initial Report** - as soon as possible on request of the minister **Follow-up Report** - at least once every 30 days after the spill began (if continuing) and any time the previously reported information has become inaccurate or incomplete **End of Spill Report** - 30 days after spillage has been contained and eliminated.

Environment and Climate Change Canada (ECCC)	Environmental emergencies if:
	1) The emergency involves any of the substances identified in Environment & Climate Change Canada's CEPA E2 List of regulated substances. See the website link at the bottom of the following page for more information.
	
	Note: CEPA has not identified specific reporting thresholds; however, CEPA has suggested that existing provincial reporting thresholds or TDG reporting thresholds are acceptable for use.
	
	A Schedule 8 written report through SWIM must be completed in the case of:
	1) An environmental emergency involving the release of a hazardous substance that:
	  a) Has or may have an immediate or long-term harmful effect on the environment
	  b) Constitutes or may constitute a danger to the environment on which human life depends
	  c) Constitutes or may constitute a danger in Canada to human life or health
	2) The reasonable likelihood of an occurrence of an environmental emergency
		Verbal	BCER / EMCR 24 Hour Number 800-663-3456

		Written	As soon as possible, submit a Schedule 8 through the SWIM (Single Window Information Manager) system
Transportation of Dangerous Goods (TDG)	Substances regulated by Transportation of Dangerous Goods if: 1) A release is anticipated, or the release meets or exceeds the reporting threshold in the TDG Reporting Requirements column in the **Release Reporting Thresholds** table on the following page.	Verbal	911 Local Authority Dangerous Goods BCER / EMCR 800-663-3456
		Written	Within 30 days
Canadian Transport Emergency Centre (CANUTEC)	Loss and theft reporting: 1) CANUTEC - all loss or theft of dangerous goods materials 2) Natural Resources Canada Inspector - Class 1 explosive materials only 3) Canadian Nuclear Safety Commission - Class 7 radioactive materials only	Verbal	1) 888-226-8832 or 613-996-6666 2) 613-995-5555 3) 613-995-0479
		Written	Within 30 days
Department of Fisheries and Oceans (DFO)	1) A release of any substance deleterious to fish into a fish bearing water body.	Verbal	BCER / EMCR 24 Hour Number 800-663-3456
Canada Energy Regulator (CER) **&** **Transportation Safety Board (TSB)**	Immediately reportable and near-miss events as defined in the Event Reporting Guidelines: 1) An incident that harms people or the environment, 2) A rupture, or 3) A toxic plume Note: Immediately reportable incidents must be reported within 3 hours to both the TSB Reporting Hotline and CER's OERS. If applicable, refer to the Federal Roles & Responsibilities chart in SECTION 5: EXTERNAL AGENCIES and the CER site section behind the AREA SPECIFIC INFORMATION tab for further regulations, definitions and reporting guidelines.	Verbal	Via Transportation Safety Board (TSB) Reporting Hotline 819-997-7887
		Written	PipelineNotifications@tsb.gc.ca
		Written	CER Online Event Reporting System (OERS) https://apps.cer-rec.gc.ca/ers/home/index
		Written	CER - Within 21 days after the day of incident/near-miss
		Written	TSB - Within 30 days after the day of the incident/near-miss
Canadian Nuclear Safety Commission (CNSC)	All radioactive releases must be reported immediately.	Verbal	613-995-0479
		Written	Within 21 days
Indian Oil & Gas (IOGC)	Immediately reportable events on First Nation reserve lands only: 1) Any health or environment-threatening emergency or off-lease spills. 2) On-lease spills greater than 1m^3.	Verbal	IOGC Tsuu T'ina Office 403-292-5625

**Note: The permit holder must report any minor incident (both spill and non-spill related) to the BCER within 24 hours by electronic submission through the Online Minor Incident Reporting System, opened through KERMIT (Form A). In addition to Form A, minor spills and leaks must also be reported immediately to EMCR so that a Dangerous Goods Incident Report (DGIR) number may be issued.

Lead Agency Contact Numbers

British Columbia	
Emergency Management and Climate Readiness (EMCR)	800-663-3456
BC Energy Regulator (BCER)	
Canada	
CANUTEC	
All Provinces	888-CAN-UTEC (888-226-8832) 613-996-6666
Canada Energy Regulator (CER) / Transportation Safety Board of Canada (TSB)	
TSB Reporting Hotline (Pipelines)	819-997-7887

Note: Spills must be reported promptly to avoid possible prosecution.

OGAA S.37 - Spillage

1) A permit holder and a person carrying out an oil and gas activity must
  (a) Prevent spillage, and
  (b) Promptly report to the commission any damage or malfunction likely to cause spillage that could be a risk to public safety or the environment

2) If spillage occurs, a permit holder or person carrying out an oil and gas activity must promptly do all of the following:
  (a) Remedy the cause or source of the spillage;
  (b) Contain and eliminate the spillage:
  (c) Remediate any land or body of water affected by the spillage;
  (d) If the spillage is a risk to public safety or the environment, report to the commission:
    (i) The location and severity of the spillage, and
    (ii) Any damage or malfunction causing or contributing to the spillage.

3) A person who is aware that spillage is occurring or likely to occur must make reasonable efforts to prevent or assist in containing or preventing the spillage.

Please refer to the BC Environmental Management Act; Spill Reporting Regulation, Schedule "Reporting Levels for Certain Substances" for determining reportable spillage amounts of other substances not listed here.

Even though some spills are not reportable, the requirement to clean up the spill is still mandatory. Spills of reportable amounts which occur in a secondary containment are still a reportable incident.

See following page for spill/release quotas.

British Columbia spill reporting document updated February 2023

British Columbia Petroleum Industry
Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Chemical Class	Substance / Example	T.D.G. Reporting Requirements		B.C. (BCER / EMCR) Reporting Requirements
		Road, Rail or Marine	**Loss or Theft**	
Other Released Substances	Hydrogen Sulphide (H₂S)	Any quantity	Any quantity	10 ppm or greater
	Hydraulic Oil	No TDG Reporting Requirements		100 L on-site / Any release off-site
	Methanol	See Class 3 & 6.1		
	Crude Oil / Emulsion	See Class 3		100 L on-site / Any release off-site
	Produced / Salt Water	No TDG Reporting Requirements		200 L / Any release off-site
	Drilling or Invert Mud	No TDG Reporting Requirements		100 L on-site / Any release off-site
	Condensate	See Class 3		
	Glycol	No TDG Reporting Requirements		200 kg or 200 L
	Fresh Water	No TDG Reporting Requirements		10,000 L
	Any fluid with toxic substances	No TDG Reporting Requirements		25 L
Class 1 Explosives	Ammunition Nitro-glycerine	Any quantity of Packing Group II	Any quantity in Class 1.1, 1.2, and 1,3 Total quantity of 450 kg or more in Class 1.4 (except 1.4S), 1.5, or 1.6	50 kg, or less if the substance poses a danger to public safety
Class 2.1 Flammable Gases	Methane Propane Butane Natural Gas (see line 25 below)	Any quantity	Total quantity of 450 kg or more	10 kg
Class 2.2 Non-Flammable Gases	Compressed Air O₂ N₂ CO₂		No TDG Reporting Requirements	10 kg
Class 2.3 Toxic Gases (poisonous or corrosive)	SO₂ Hydrogen Cyanide Nitric Acid Anhydrous Ammonia		Any quantity	5 kg
Class 3 Flammable Liquids	Gasoline Diesel Methanol Demulsifiers Scale Inhibitors	Any quantity of Packing Group I or II More than 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1261, Nitromethane	100 L
	Lube Oil			100 L
Class 4.1 Flammable Solids	Calcium Resinate Naphthalene Crude		Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1357, Urea Nitrate, with not less than 20% water, by mass; UN3370, Urea Nitrate, Wetted, with not less than 10% water by mass	25 kg
Class 4.2 Spontaneously Combustible	Activated Carbon Potassium Sulphide Phosphorus		Total quantity of 450 kg or more in Packing Groups I or II	
Class 4.3 Dangerous when Wet	Molten Sulphur Calcium Carbide Sodium Activated Carbon		Total quantity of 450 kg or more in Packing Groups I or II	
Class 5.1 Oxidizing Substances	Calcium Nitrate Ammonium Nitrate Bleaches		Total quantity of 450 kg or more in Packing Groups I or II Any quantity of UN1485, Potassium Chlorate; UN1486, Potassium Nitrate; UN 1487, Potassium Nitrate and Sodium Nitrate Mixture; UN1489, Potassium Perchlorate; UN1495, Sodium Chlorate; UN1498, Sodium Nitrate; UN1499 Sodium Nitrate and Potassium Nitrate Mixture; UN1511, Urea Hydrogen Peroxide; UN1942 Ammonia Nitrate, with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substances; UN2014 Hydrogen Peroxide, Aqueous Solution with not less than 20% but not less than 60% hydrogen peroxide (stabilized as necessary); UN2015, Hydrogen Peroxide, Stabilized; UN2031, Nitric Acid, other than red fuming; UN3149, Hydrogen Peroxide and Peroxyacetic Acid Mixture with acid(s), water and not more than 5% peroxyacetic acid, stabilized	50 kg or 50 L
Class 5.2 Organic Peroxides	Methyl Ethyl Ketone Peroxide Succinic Acid Peroxide		Any quantity in Class 5.2, Type B, liquid or solid, temperature controlled	1 kg or 1 L
Class 6.1 Poisonous Toxic Substances	Arsenic Lead Acetate Mercuric Oxide Methanol Toxic Pesticides		Any quantity of Packing Group I	5 kg or 5 L
Class 6.2 Infectious Substances	Infectious Substances affecting Humans / Animals	Any quantity of Category A or B	Any quantity	1 kg or 1 L, or less if the waste poses a danger to public safety or the environment
Class 7 Radioactive Substances	Uranium Plutonium Naturally Occurring Radioactive Materials (N.O.R.M.)	For packages being transported under exclusive use: (i) 10 mSv/h on the external surface (ii) 2 mSv/h on the surface of the conveyance, and (iii) 0.1 mSv/h at a distance of 2 m from the surface. For packages not being transported under exclusive use: (i) 2 mSv/h on the external surface (ii) 0.1 mSv/h at a distance of 1 m from the package, (iii) 2 mSv/h on the surface of the conveyance, and (iv) 0.1 mSv/h at a distance of 2 m from the surface of the conveyance.	Any quantity	Any quantity that could pose a danger to public safety and an emission level greater than the emission level established in section 20 of the "Packaging and Transport of Nuclear Substance Regulations"
Class 8 Corrosives	Acids Bases Batteries Caustic Amine	Any quantity of Packing Group I or II 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more in Packing Group I or II Any quantity of UN1796, Nitrating Acid Mixture with more than 50% nitric acid; UN1826, Nitrating Acid Mixture, Spent, with more than 50% nitric acid; UN2032, Nitric Acid, Red Fuming	5 kg or 5 L
Class 9 Miscellaneous Products, Substances & Organisms, Environmentally Hazardous Substances	P.C.B. Asbestos Substances not regulated by the *Transportation of Dangerous Goods Act*	30 L or 30 kg of Packing Group II or III, or without Packing Group	No TDG Reporting Requirements	25 kg or 25 L of Packing Group II or III, or without Packing Group

Other items in the BC Spill Reporting Regulation that are applicable to the petroleum industry but do not fit in the above table format.

Item	Substance Spilled	Specified Amount
14	Waste containing dioxin as defined in Section 1 of the Hazardous Waste Regulation	1 k or 1 L, or less if the waste poses a danger to public safety or the environment
15	Leachable toxic waste as defined in Section 1 of the Hazardous Waste Regulation	25 kg or 25 L
16	Waste containing polycyclic aromatic hydrocarbons as defined in Section 1 of the Hazardous Waste Regulation	5 kg or 5 L
17	Waste asbestos as defined in Section 1 of the Hazardous Waste Regulation	50 kg
18	Waste oil as defined in Section 1 of the Hazardous Waste Regulation	100 L
20	PCB wastes as defined in Section 1 of the Hazardous Waste Regulation	25 kg or 25 L
23	A hazardous waste as defined in Section 1 of the Hazardous Waste Regulation and not covered under items 1 to 22 (built into above table)	25 kg or 25 L
24	A substance, not covered by items 1 to 23 (built into above table) that can cause pollution	200 kg or 200 L
25	Natural Gas	10 kg, if there is a breakage in a pipeline or fitting operated above 100 psi that results in a sudden and uncontrolled release of natural gas

For all other reportable substances/quantities, please refer to company SDS sheets for more information.

List of Environment & Climate Change Canada's E2 Regulated Substances: http://gazette.gc.ca/rp-pr/p2/2019/2019-03-06/html/sor-dors51-eng.html

Saskatchewan Petroleum Industry
Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Agency	Reportable Spills	Report Type	Report to
Ministry of Energy and Resources (ER)	Immediate verbal notification is required for any release that meets or exceeds the reporting thresholds on the following page, <u>except</u> for the following types of incidents: 1) Contact damage to a flowline or pipeline that does not result in a break or leak. 2) Any on-site release of oil, condensate, emulsion or salt water that is less than 10m^3 or 10,000 L. 3) If a spill or other incident occurs while a product or waste is being transported.	Verbal	1-844-764-3637 or ER Regional Office *See Lead Agency Contacts below*
	Incidents requiring notification in IRIS: 1) All incidents that meet or exceed the reporting thresholds on the following page must be reported on IRIS within **5 days.** 2) All reported incidents must be followed-up with a fully detailed report on IRIS within **90 days.** Note: On-site releases or contact damage that are exempt from immediate telephone notification still require ER notification using IRIS in accordance with section 3.2 of *Directive PNG014*.	Written	Initial report within 5 days to IRIS online reporting system Detailed report within 90 Days to IRIS online reporting system
Saskatchewan Environment	Releases of refined product if: 1) Release meets or exceeds the reporting threshold in the Saskatchewan Environment Reporting Requirements column in the **Release Reporting Thresholds** on the following page. 2) Any release that could pose a serious risk to the environment, public health or safety. 3) Any release with an adverse affect*	Verbal	Sask Spill Control Centre 1-800-667-7525
		Written	Within 30 Days
Saskatchewan Water Security Agency (WSA)	Immediate verbal notification of: 1) Any release that affects, or may affect waterbodies, raw water supplies or potable water sources.	Verbal	Spill reporting line 844-536-9494
Ministry of Highways (MOH) - Transportation Programs & Services	1) Any accident or incident on a provincially regulated railway.	Verbal	Within 24 hours Provincial Railway Inspector 306-787-4900
		Written	Within 48 hours rail.services@gov.sk.ca
Environmental & Climate Change Canada (ECCC)	Environmental emergencies if: 1) The emergency involves any of the substances identified in Environment & Climate Change Canada's E2 List of regulated substances. See the website link at the bottom of the following page for more information. Note: ECCC has not identified specific reporting thresholds; however, ECCC has suggested that existing provincial reporting thresholds or TDG reporting thresholds are acceptable for use.	Verbal	Sask Spill Control Centre 1-800-667-7525

	A Schedule 8 written report through SWIM must be completed in the case of:
	1) An environmental emergency involving the release of a hazardous substance that:
	  a) Has or may have an immediate or long-term harmful effect on the environment
	  b) Constitutes or may constitute a danger to the environment on which human life depends
	  c) Constitutes or may constitute a danger in Canada to human life or health
	2) The reasonable likelihood of an occurrence of an environmental emergency
		Written	As soon as possible, submit a Schedule 8 through the SWIM (Single Window Information Manager) system

Transportation of Dangerous Goods (TDG)	Substances regulated by Transportation of Dangerous Goods if: 1) A release is anticipated, or the release meets or exceeds the reporting threshold in the TDG Reporting Requirements column in the **Release Reporting Thresholds** table on the following page.	Verbal	911 Local Authority Spill Control Centre 1-800-667-7525
		Written	Within 30 days
Canadian Transport Emergency Centre (CANUTEC)	Loss and theft reporting: 1) CANUTEC - all loss or theft of dangerous goods materials 2) Natural Resources Canada Inspector - Class 1 explosive materials only 3) Canadian Nuclear Safety Commission - Class 7 radioactive materials only	Verbal	1) 888-226-8832 or 613-996-6666 2) 613-995-5555 3) 613-995-0479
Department of Fisheries and Oceans (DFO)	1) A release of any substance deleterious to fish into a fish bearing water body	Verbal	Sask Spill Control Centre 1-800-667-7525
Canada Energy Regulator (CER) & Transportation Safety Board (TSB)	Immediately reportable and near-miss events as defined in the Event Reporting Guidelines: 1) An incident that harms people or the environment, 2) A rupture, or 3) A toxic plume Note: Immediately reportable incidents must be reported within 3 hours to both the TSB Reporting Hotline and CER's OERS. If applicable, refer to the Federal Roles & Responsibilities chart in SECTION 5: EXTERNAL AGENCIES and the CER site section behind the AREA SPECIFIC INFORMATION tab for further regulations, definitions and reporting guidelines.	Verbal	Via Transportation Safety Board (TSB) Reporting Hotline 819-997-7887
		Written	PipelineNotifications@tsb.gc.ca
		Written	CER Online Event Reporting System (OERS) https://apps.cer-rec.gc.ca/ers/home/index
		Written	CER - Within 21 days after the day of incident/near-miss
		Written	TSB - Within 30 days after the day of the incident/near-miss
Canadian Nuclear Safety Commission (CNSC)	All radioactive releases must be reported immediately.	Verbal	613-995-0479
		Written	Within 21 days
Indian Oil & Gas (IOGC)	Immediately reportable events on First Nation reserve lands only: 1) Any health or environment-threatening emergency or off-lease spills. 2) On-lease spills greater than 1 m^3.	Verbal	IOGC Tsuu T'ina Office 403-292-5625

Note: Spills must be reported promptly to avoid possible prosecution.

Lead Agency Contact Numbers

Saskatchewan

Ministry of Energy and Resources (ER)

Province Wide	844-764-3637
Estevan	306-637-4541
Kindersley	306-463-5400
Lloydminster	306-825-6434
Swift Current	306-778-8252

Saskatchewan Environment (Spill Control Centre)

Province Wide	800-667-7525

Canada

CANUTEC

All Provinces	888-CAN-UTEC (888-226-8832) 613-996-6666

Western Canadian Spill Services (WCSS)

Western Canada	866-541-8888

Canada Energy Regulator (CER) / Transportation Safety Board of Canada (TSB)

TSB Reporting Hotline (Pipelines)	819-997-7887

* Definition of Adverse Affect

Is defined by the Environmental Protection & Enhancement Act (EPEA) as "impairment of or damage to the environment, human health or safety, or property."

For the purpose of reporting, the industry shall use the following guidelines to assess whether the release may cause, is causing or has caused an adverse affect.

- Any third party impact (off-lease), e.g. crop damage, vegetation damage or livestock impact
- Unrecovered spilled substance likely to contaminate surface or groundwater
- Contaminated groundwater and / or surface water
- Release or spill has potential for offsite odour complaints
- Toxic or flammable release to air going off-site

See following page for spill/release quotas.

Saskatchewan Petroleum Industry Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Chemical Class	Substance / Example	T.D.G. Reporting Requirements		SK Environment / ER Reporting Requirements	
		Road, Rail or Marine	Loss or Theft	On-Site	Off-Site
Class 1 Explosives	Ammunition Nitro-glycerine	Any quantity of Packing Group II	Any quantity in Class 1.1, 1.2, and 1,3 Total quantity of 450 kg or more in Class 1.4 (except 1.4S), 1.5, or 1.6	All releases which could pose a danger or 50 kg	
Class 2.1 Flammable Gases	Methane Propane Butane Natural Gas	Any quantity	Total quantity of 450 kg or more	All releases which could pose a danger, 50 kg, or any sustained release of 10 minutes or more	
Class 2.2 Non-Flammable Gases	Compressed Air O_2 N_2 CO_2		No TDG Reporting Requirements	All releases which could pose a danger or Compressed Gas: non-Halocarbon containing (including oxygen) - a sustained release of 10 minutes or more Compressed Gas: Halocarbon containing ~100 kg	
Class 2.3 Toxic Gases (poisonous or corrosive)	SO_2 Hydrogen Cyanide Nitric Acid Anhydrous Ammonia		Any quantity	Any amount	
Class 3 Flammable Liquids	Gasoline Diesel Methanol Demulsifiers Scale Inhibitors	Any quantity of Packing Group I or II More than 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1261, Nitromethane	500 L or any subsurface loss	200 L or any subsurface loss
Class 4.1 Flammable Solids	Calcium Resinate Naphthalene Crude		Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1357, Urea Nitrate, with not less than 20% water, by mass; UN3370, Urea Nitrate, Wetted, with not less than 10% water by mass	100 kg	25 kg
Class 4.2 Spontaneously Combustible	Activated Carbon Potassium Sulphide Phosphorus		Total quantity of 450 kg or more in Packing Groups I or II		
Class 4.3 Dangerous when Wet	Molten Sulphur Calcium Carbide Sodium Activated Carbon		Total quantity of 450 kg or more in Packing Groups I or II		
Class 5.1 Oxidizing Substances	Calcium Nitrate Ammonium Nitrate Bleaches		Total quantity of 450 kg or more in Packing Groups I or II Any quantity of UN1485, Potassium Chlorate; UN1486, Potassium Nitrate; UN 1487, Potassium Nitrate and Sodium Nitrate Mixture; UN1489, Potassium Perchlorate; UN1495, Sodium Chlorate; UN1498, Sodium Nitrate; UN1499 Sodium Nitrate and Potassium Nitrate Mixture; UN1511, Urea Hydrogen Peroxide; UN1942 Ammonia Nitrate, with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substances; UN2014 Hydrogen Peroxide, Aqueous Solution with not less than 20% but not less than 60% hydrogen peroxide (stabilized as necessary); UN2015, Hydrogen Peroxide, Stabilized; UN2031, Nitric Acid, other than red fuming; UN3149, Hydrogen Peroxide and Peroxyacetic Acid Mixture with acid(s), water and not more than 5% peroxyacetic acid, stabilized	Packing Groups I & II 50 kg or 50 L Packing Group III 100 kg or 100 L	Packing Groups I & II 2.5 kg or 2.5 L Packing Group III 50 kg or 50 L
Class 5.2 Organic Peroxides	Methyl Ethyl Ketone Peroxide Succinic Acid Peroxide		Any quantity in Class 5.2, Type B, liquid or solid, temperature controlled	2.5 kg or 2.5 L	1 kg or 1 L
Class 6.1 Poisonous Toxic Substances	Arsenic Lead Acetate Mercuric Oxide Methanol Toxic Pesticides		Any quantity of Packing Group I	Packing Group I 2.5 kg or 2.5 L Packing Groups II & III 10 kg or 10 L	Packing Group I 1 kg or 1 L Packing Groups II & III 5 kg or 5 L
Class 6.2 Infectious Substances	Infectious Substances affecting Humans / Animals	Any quantity of Category A or B	Any quantity	All releases	
Class 7 Radioactive Substances	Uranium Plutonium Naturally Occurring Radioactive Materials (N.O.R.M.)	For packages being transported under exclusive use: (i) 10 mSv/h on the external surface (ii) 2 mSv/h on the surface of the conveyance, and (iii) 0.1 mSv/h at a distance of 2 m from the surface For packages not being transported under exclusive use: (i) 2 mSv/h on the external surface (ii) 0.1 mSv/h at a distance of 1m from the package, (iii) 2 mSv/h on the surface of the conveyance, and (iv) 0.1 mSv/h at a distance of 2m from the surface of the conveyance.	Any quantity	As per permit/approval conditions for the operation/facility. Where there is no permit/ approval.	A discharge of any quantity of a Class 7 substance from a means of containment being used to store, handle or transport the substance.
Class 8 Corrosives	Acids Bases Batteries Caustic Amine	Any quantity of Packing Group I or II 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more in Packing Group I or II Any quantity of UN1796, Nitrating Acid Mixture with more than 50% nitric acid; UN1826, Nitrating Acid Mixture, Spent, with more than 50% nitric acid; UN2032, Nitric Acid, Red Fuming	10 kg or 10 L	5 kg or 5 L
Class 9.1 Miscellaneous (except and with PCB mixtures)	P.C.B. Asbestos Polystyrene Beads Gas Plant Filters Benzoic Acid Chromic Acetate Cupric Sulphate	30 L or 30 kg of Packing Group II or III, or without Packing Group	No TDG Reporting Requirements	Miscellaneous Except PCB Mixtures 100 kg PCB Mixtures 50 grams net PCB content 1 kg or 1 L	Miscellaneous Except PCB Mixtures 25 kg or 25 L
Class 9.2 Aquatic Toxic					
Class 9.3 Wastes (chronic toxic)	Toxic Leachate waste containing liquid or solid metals (mercury, lead, etc.)	No TDG Reporting Requirements		10 kg or 10 L	5 kg or 5 L

Other SK Incidents subject to notification and reporting applicable to the petroleum industry but do not fit in the above table format

Type	Incident	Substance	Location	Description
General field operations	Fire	All	All	Any fires resulting from the operation of a licensed well, facility pipeline or flowline.
	Release or spill	Naturally Occurring Radioactive Materials (NORM)	All	Any volume
		Oil by-products or oily produced sands	All	Any volume released that is not approved under GL97-02
	Blow-out	All	All	Any uncontrolled release of gases or fluid from a well
	Kicks	All	All	Any controlled diversion of gases or fluid from the well to a flare tank
Pipeline or flowline operation	Contact damage	All	All	Any contact damage to a flowline or pipeline
	Break	All	All	Any break to a flowline or pipeline
	Leak, malfunction of any equipment or a worker error resulting in the escape or release of a substance	Oil, salt water, condensate or other product	Off-Site	Any volume
			On-Site	All releases that are > 2.0 cubic metres (m^3) of fluid
		Gas containing Hydrogen Sulphide (H_2S)	All	Any volume at any concentration
		Natural Gas	All	Any volumes where: 1. The released volume exceeds 30,000 m3 2. The release is within a road or railway right-of-way 3. The release is within 150 metres of any dwelling
Horizontal directional drilling (pipeline/flowline installation)	Release, spill or frac-out	Drilling fluid	All	Any volume
Drilling or fracturing operation	Release or spill	Drilling wastes	All	Any volume released that is not approved under GL99-01
		Fracturing wastes	All	Any volume released that is not approved under GL2000-01
Well or facility operation	Break, leak, malfunction of any equipment or intentional or unintentional action resulting in an escape or release	Oil, salt water, condensate, oil and gas waste, emulsion or product	On-Site	All volumes > 2 m³ or 2000 L requires reporting but only volumes > 10 m³ or 10,000 L require notification
			Off-Site	Any volume
		Refined chemical	On-Site	All volumes > 0.5 m³ or 500 L
	Escape or release	Gas containing H_2S	All	Any volumes where: 1. The concentration of H2S exceeds 0.1% or 1000 ppm or 1.0 mole H_2S/kilomole from solids, liquids or gas during production or transportation (truck or transmission via pipeline/flowline) 2. The released volume poses a danger to human health, domestic animals, wildlife or the environment

Substance	Hazard Type	On-Site	Off-Site
Emulsion	Environmental	2000 L	Any Amount
Refined chemicals used in or in association with the maintenance, production or operation of a well, facility, pipeline or flowline	Environmental	500 L	Any Amount
Oil, salt water, condensate, oil and gas waste or product	Environmental	2000 L	Any Amount
Hydrogen Sulphide (H_2S)	Toxic Gas	1000 ppm or 1 mole/Kmole	
Drilling wastes, frac wastes, oil byproducts (Oily produced Sands)	Environmental	2000 L	Any Amount
Plant-based oils and fuels (Not Hazard Class 3), (e.g. Canola, sunflower, linseed oils, bio-diesel)	Environmental	500 L	250 L
Glycols (inhibited and uninhibited) (e.g. antifreeze, heat transfer fluids)	Environmental	100 L	50 L
Non-Class 3 Petroleum Substances (e.g. new and used lubricating oils, mineral oils, hydraulic fluids)	Environmental	500 L	200 L
Industrial Wastes	Environmental	1000 Kg or 1000 L	500 Kg or 500 L
Sewage	Environmental	N/A	300 L

For all other reportable substances/quantities, please refer to company SDS sheets for more information.

List of Environment & Climate Change Canada's E2 Regulated Substances: http://gazette.gc.ca/rp-pr/p2/2019/2019-03-06/html/sor-dors51-eng.html

Manitoba Petroleum Industry
Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.			
Agency	**Reportable Spills**	**Report Type**	**Report to**
Manitoba Economic Development, Investment and Trade (EDIT) – Resource Development (Petroleum)	Substances regulated by Resource Development (Petroleum) if: 1) The spill occurs on or spreads to land off the well-site or the site of the oil and gas facility. 2) The product released is not a refined product. 3) Any liquid spill greater than 0.5 m^3. 4) Any release or imminent release of a contaminant that may pose a risk to public health or the environment.	Verbal	24 Hour Number *800-223-5215*
		Written	Within 7 days
Manitoba Environment, Climate and Parks	Releases of refined product if: 1) Release meets or exceeds the reporting threshold in the Manitoba Environment Reporting Requirements column in the **Release Reporting Thresholds** table on the following page. 2) Any release that enters a main watercourse or navigate water body. 3) Any release that occurs while under transport. 4) The volume of product exceeds 100 L.	Verbal	24 Hour Number *204-944-4888 / 855-944-4888*
		Written	Within 7 days

Canadian Environmental Protection Agency (CEPA)	Environmental emergencies if:
	1) The emergency involves any of the substances identified in Environment & Climate Change Canada's E2 List of regulated substances. See the website link at the bottom of the following page for more information.
	Note: CEPA has not identified specific reporting thresholds; however, CEPA has suggested that existing provincial reporting thresholds or TDG reporting thresholds are acceptable for use.
	A Schedule 8 written report through SWIM must be completed in the case of:
	1) An environmental emergency involving the release of a hazardous substance that:
	   a) Has or may have an immediate or long-term harmful effect on the environment
	   b) Constitutes or may constitute a danger to the environment on which human life depends
	   c) Constitutes or may constitute a danger in Canada to human life or health
	2) The reasonable likelihood of an occurrence of an environmental emergency
		Verbal	24 Hour Number
			204-944-4888 / 855-944-4888

		Written	As soon as possible, submit a Schedule 8 through the SWIM (Single Window Information Manager) system
Transportation Dangerous Goods (TDG)	Substances regulated by Transportation of Dangerous Goods if: 1) A release is anticipated, or the release meets or exceeds the reporting threshold in the TDG Reporting Requirements column in the **Release Reporting Thresholds** table on the following page.	Verbal	911 Local Authority Dangerous Goods *SD 24 Hour Number* *204-944-4888 / 855-944-4888*
		Written	Within 30 days
Canadian Transport Emergency Centre (CANUTEC)	Loss and theft reporting: 1) CANUTEC - all loss or theft of dangerous goods materials 2) Natural Resources Canada Inspector - Class 1 explosive materials only 3) Canadian Nuclear Safety Commission - Class 7 radioactive materials only	Verbal	1) 888-226-8832 or 613-996-6666 2) 613-995-5555 3) 613-995-0479
Department of Fisheries and Oceans (DFO)	1) A release of any substance deleterious to fish into a fish bearing water body	Verbal	SD 24 Hour Number *204-944-4888*
Canada Energy Regulator (CER) & Transportation Safety Board (TSB)	Immediately reportable and near-miss events as defined in the Event Reporting Guidelines: 1) An incident that harms people or the environment, 2) A rupture, or 3) A toxic plume Note: Immediately reportable incidents must be reported within 3 hours to both the TSB Reporting Hotline and CER's OERS. If applicable, refer to the Federal Roles & Responsibilities chart in SECTION 5: EXTERNAL AGENCIES and the CER site section behind the AREA SPECIFIC INFORMATION tab for further regulations, definitions and reporting guidelines.	Verbal	Via Transportation Safety Board (TSB) Reporting Hotline 819-997-7887
		Written	PipelineNotifications@tsb.gc.ca
		Written	CER Online Event Reporting System (OERS) https://apps.cer-rec.gc.ca/ers/home/index
		Written	CER - Within 21 days after the day of incident/near-miss
		Written	TSB - Within 30 days after the day of the incident/near-miss
Canadian Nuclear Safety Commission (CNSC)	All radioactive releases must be reported immediately.	Verbal	613-995-0479
		Written	Within 21 days
Indian Oil & Gas (IOGC)	Immediately reportable events on First Nation reserve lands only: 1) Any health or environment-threatening emergency or off-lease spills. 2) On-lease spills greater than 1m^3.	Verbal	IOGC Tsuu T'ina Office 403-292-5625

Note: Spills must be reported promptly to avoid possible prosecution.

Lead Agency Contact Numbers	
Manitoba	
Manitoba Economic Development, Investment and Trade (EDIT) – Resource Development (Petroleum)	
Province Wide	800-223-5215
Manitoba Environment, Climate and Parks (Spill Control Centre)	
Province Wide	*855-944-4888* 204-944-4888
Canada	
CANUTEC	
All Provinces	888-CAN-UTEC (888-226-8832) 613-996-6666
Canada Energy Regulator (CER) / Transportation Safety Board of Canada (TSB)	
TSB Reporting Hotline (Pipelines)	819-997-7887

See following page for spill/release quotas.

Manitoba spill reporting
document updated
June 2023

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Manitoba Petroleum Industry
Release Reporting Requirements

All spills exceeding the spill/release quotas listed in the table on the following page MUST be reported immediately to the appropriate regulatory agency.

Chemical Class	Substance / Example	T.D.G. Reporting Requirements		Manitoba Environment, Climate and Parks Reporting Requirements
		Road, Rail or Marine	Loss or Theft	
Other Released Substances	Hydraulic Oil	No TDG Reporting Requirements		100 L on-site Any release off-site (Report to district office and notify landowner within 12 hours)
	Methanol	See Class 3 & 6.1		
	Natural Gas	See Class 2.1		
	Crude Oil / Emulsion	See Class 3		
	Produced / Salt Water	No TDG Reporting Requirements		
	Condensate	See Class 3		
	Glycol	No TDG Reporting Requirements		
Class 1 Explosives	Ammunition Nitro-glycerine	Any quantity of Packing Group II	Any quantity in Class 1.1, 1.2, and 1,3 Total quantity of 450 kg or more in Class 1.4 (except 1.4S), 1.5, or 1.6	All releases
Class 2.1 Flammable Gases	H₂S Methane Propane Butane Natural Gas	Any quantity	Total quantity of 450 kg or more	100 L container capacity
Class 2.2 Non-Flammable Gases	Compressed Air O₂ N₂ CO₂		No TDG Reporting Requirements	
Class 2.3 Toxic Gases (poisonous or corrosive)	H₂S SO₂ Hydrogen Cyanide Nitric Acid Anhydrous Ammonia		Any quantity	All releases
Class 3 Flammable Liquids	Gasoline Diesel Methanol Demulsifiers Scale Inhibitors Lube Oil	Any quantity of Packing Group I or II More than 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1261, Nitromethane	100 L
Class 4.1 Flammable Solids	Calcium Resinate Naphthalene Crude		Total quantity of 450 kg or more of desensitized explosives Any quantity of UN1357, Urea Nitrate, with not less than 20% water, by mass; UN3370, Urea Nitrate, Wetted, with not less than 10% water by mass	1 kg
Class 4.2 Spontaneously Combustible	Activated Carbon Potassium Sulphide Phosphorus		Total quantity of 450 kg or more in Packing Groups I or II	
Class 4.3 Dangerous when Wet	Molten Sulphur Calcium Carbide Sodium Activated Carbon		Total quantity of 450 kg or more in Packing Groups I or II	
Class 5.1 Oxidizing Substances	Calcium Nitrate Ammonium Nitrate Bleaches		Total quantity of 450 kg or more in Packing Groups I or II Any quantity of UN1485, Potassium Chlorate; UN1486, Potassium Nitrate; UN 1487, Potassium Nitrate and Sodium Nitrate Mixture; UN1489, Potassium Perchlorate; UN1495, Sodium Chlorate; UN1498, Sodium Nitrate; UN1499 Sodium Nitrate and Potassium Nitrate Mixture; UN1511, Urea Hydrogen Peroxide; UN1942 Ammonia Nitrate, with not more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substances; UN2014 Hydrogen Peroxide, Aqueous Solution with not less than 20% but not less than 60% hydrogen peroxide (stabilized as necessary); UN2015, Hydrogen Peroxide, Stabilized; UN2031, Nitric Acid, other than red fuming; UN3149, Hydrogen Peroxide and Peroxyacetic Acid Mixture with acid(s), water and not more than 5% peroxyacetic acid, Stabilized	1 kg or 1 L for packaging groups I & II 50 kg or 50 L for packaging group III
Class 5.2 Organic Peroxides	Methyl Ethyl Ketone Peroxide Succinic Acid Peroxide		Any quantity in Class 5.2, Type B, liquid or solid, temperature controlled	1 kg or 1 L
Class 6.1 Poisonous Toxic Substances	Arsenic Lead Acetate Mercuric Oxide Methanol Toxic Pesticides		Any quantity of Packing Group I	1 kg or 1 L for packaging group I 5 kg or 5 L for packaging groups II & III
Class 6.2 Infectious Substances	Infectious Substances affecting Humans / Animals	Any quantity of Category A or B	Any quantity	All releases
Class 7 Radioactive Substances	Uranium Plutonium Naturally Occurring Radioactive Materials (N.O.R.M.)	For packages being transported under exclusive use: (i) 10 mSv/h on the external surface (ii) 2 mSv/h on the surface of the conveyance, and (iii) 0.1 mSv/h at a distance of 2 m from the surface For packages not being transported under exclusive use: (i) 2 mSv/h on the external surface (ii) 0.1 mSv/h at a distance of 1 m from the package, (iii) 2 mSv/h on the surface of the conveyance, and (iv) 0.1 mSv/h at a distance of 2 m from the surface of the conveyance.	Any quantity	Discharge or radiation level exceeding 10 mSv/h at package surface & 200 uSv/h, 1m from the package surface
Class 8 Corrosives	Acids Bases Batteries Caustic Amine	Any quantity of Packing Group I or II 30 L or 30 kg of Packing Group III	Total quantity of 450 kg or more in Packing Group I or II Any quantity of UN1796, Nitrating Acid Mixture with more than 50% nitric acid; UN1826, Nitrating Acid Mixture, Spent, with more than 50% nitric acid; UN2032, Nitric Acid, Red Fuming;	5 kg or 5 L
Class 9 Miscellaneous Products, Substances & Organisms, Environmentally Hazardous Substances	P.C.B. Asbestos Polystyrene Beads Gas Plant Filters Benzoic Acid Chromic Acetate Cupric Sulphate	30 L or 30 kg of Packing Group II or III, or without Packing Group	No TDG Reporting Requirements	50 kg (except PCB mixture = 500 grams)
Class 9.1 Miscellaneous (except and with PCB mixtures)				
Class 9.2 Aquatic Toxic				1 kg or 1 L
Class 9.3 Wastes (chronic toxic)				5 kg or 5 L

For all other reportable substances/quantities, please refer to company SDS sheets for more information.

List of Environment & Climate Change Canada's E2 Regulated Substances: http://gazette.gc.ca/rp-pr/p2/2019/2019-03-06/html/sor-dors51-eng.html

MEDICAL EMERGENCIES

DISCLAIMER: The information contained in this section does not replace formal First Aid, CPR & AED training. The company makes no guarantee as to, and assumes no responsibility for, the correctness, sufficiency or completeness of such information or recommendations. A First Aid provider is someone who has completed formal first aid training from a recognized provider. Training can be obtained from Canadian-approved First Aid providers.

FIRST AID INFORMATION

Chemical Exposure Guidelines

- In the event of chemical exposure, emergency services or poison control centre should be contacted as soon as possible.

- The eye may be irrigated using copious amounts of clean water, preferably using an eyewash bottle, eyewash station or shower.

- First aid providers may use continuous, large volumes of clean water for irrigation of chemical injuries where chemical exposure has occurred to other parts of the body.

Wounds & Abrasions Guidelines

- Superficial wounds and abrasions should be irrigated with clean water, preferably tap water because of the benefit of pressure.

- First aid providers may apply antibiotic ointment to skin abrasions and wounds to promote faster healing with less risk of infection.

- First aid providers may apply an occlusive dressing to wounds and abrasions with or without antibiotic ointment.

- The use of triple antibiotic ointment may be preferable to double- or single-agent antibiotic ointment or cream.

- If antibiotic is not used, antiseptic could be used.

- There is some evidence that traditional approaches, including applying honey, are beneficial and may be used on wounds by first aid providers.

- People with wounds that develop redness, warmth or become painful or with wounds where the person develops fever should seek assessment from a healthcare provider.

Bleeding Guidelines

- First aid providers must control external bleeding by applying direct pressure.

- The use of pressure points and elevation is NOT recommended.

- When direct pressure fails to control life-threatening external limb bleeding or is not possible (e.g. multiple injuries, inaccessible wounds, multiple casualties), tourniquets could be considered in special circumstances (such as disaster, war-like conditions, remote locations or in instances where specially trained first aid providers are providing care).

- Localized cold therapy with or without pressure may be beneficial in haemostasis for closed bleeding in extremities. Caution is advised when applying this recommendation to children due to a potential for hypothermia.

- The out-of-hospital application of a topical haemostatic agent to control life threatening bleeding not controlled by standard techniques and in situations where standard techniques could not be applied could be considered with appropriate training.

Source: www.redcross.ca/crc/documents/1303501_FirstAid-2016_Guidelines_LR-PDF.pdf

NEXT-OF-KIN NOTIFICATION

When an employee, contractor or member of the public is seriously injured, missing, or pronounced dead, the next-of-kin must be notified as promptly as possible. The Incident Commander is responsible for the notification of next-of-kin and this will be coordinated with corporate personnel. Cenovus will request that notification be made by RCMP Victim Services, accompanied, if possible, by the most senior company field representative or appropriate Cenovus representative known by the family.

Keep in mind the following policies before notifying any next-of-kin:

- Death is never presumed, and first aid must be administered until relieved by a medical professional.

- No telephone or radio discussion is to take place regarding the name(s) of the injured.

- Notification is not to occur until the casualty has been pronounced dead by a medical doctor or medical examiner.

EMERGENCY TRANSPORTATION

An emergency transportation plan has been developed to adhere to the emergency transportation requirements outlined in the Alberta Occupational Health and Safety Code – Part 11: First Aid. The emergency transportation plan is designed to ensure the health and safety of any worker on a Cenovus site is protected during emergency transport to a health care facility. In the event of a medical emergency (injury or illness) requiring emergency transport the following protocols will be established based on the situation and local resources/capabilities of the site and workers.
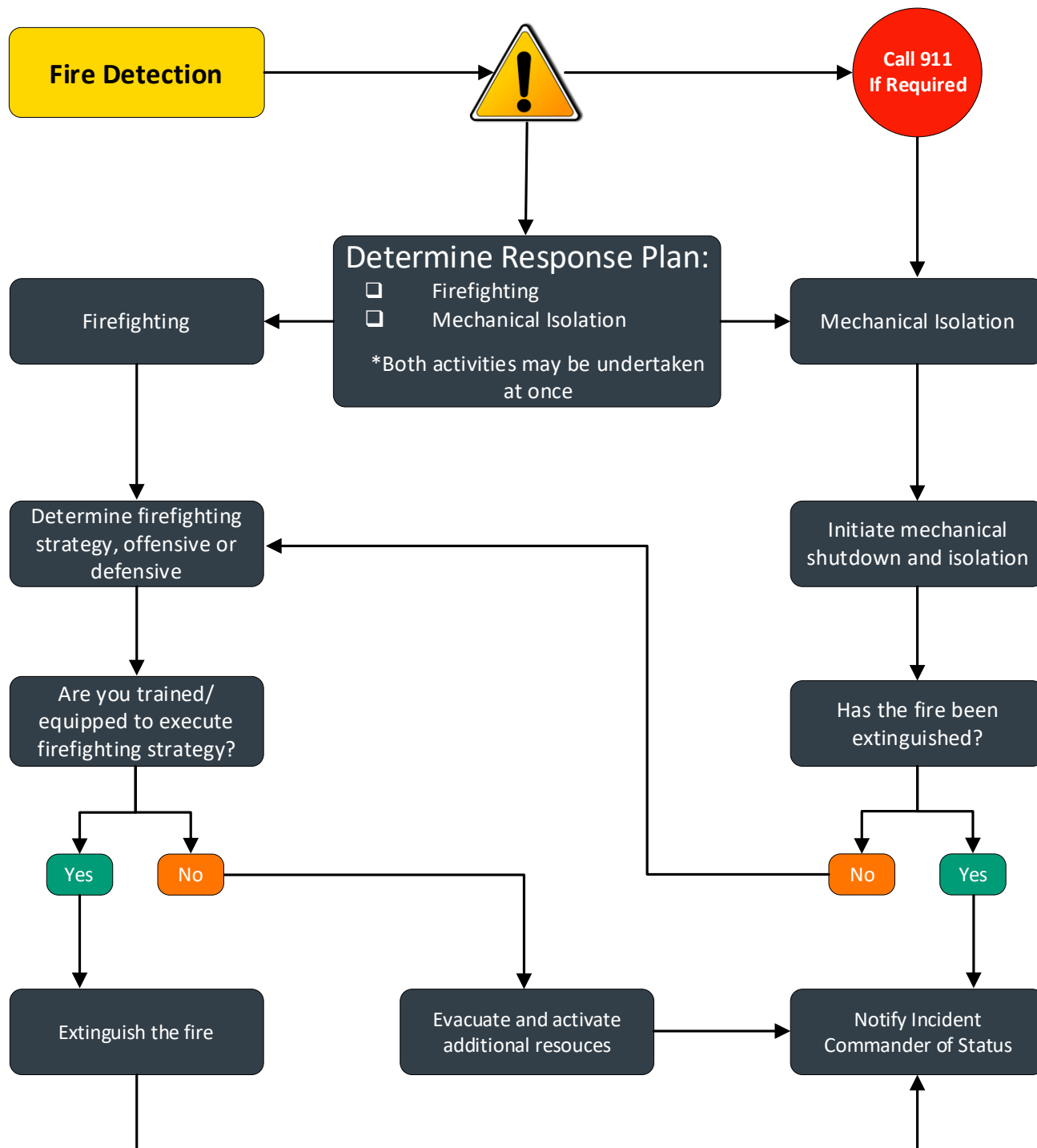
- Emergency services

- Transportation method (E.g. ground, helicopter, etc.)

- Health care facility

- Certified first aider

For more details refer to the *Section 8: Area Specific Information*, the *Field Level Initial Response Plan (FLIRP)* and the *Cenovus Emergency Transportation Plan* located on the IEM SharePoint.

FIRE RESPONSE

FIRE DECISION FLOWCHART

| Fire Detection | ⚠️ | Call 911 If Required |

Determine Response Plan:
- ❑ Firefighting
- ❑ Mechanical Isolation

*Both activities may be undertaken at once

Firefighting

Mechanical Isolation

Determine firefighting strategy, offensive or defensive

Initiate mechanical shutdown and isolation

Are you trained/ equipped to execute firefighting strategy?

Has the fire been extinguished?

Yes | No | No | Yes

Extinguish the fire

Evacuate and activate additional resouces

Notify Incident Commander of Status

CLASSES OF FIRES

Class / Symbol	Material	Extinguishing Agent
A (green)	Ordinary combustible materials, such as wood, paper, cloth, trash, and plastics.	Cooling, blanketing or wetting extinguishing agent is needed. Water and foam extinguishers work on this class of fire.
B (red)	Flammable liquids such as gasoline, thinners, oil-based paints and greases; Also includes flammable gases such as propane and butane.	Extinguishers for this type of fire include carbon dioxide, dry chemical and halogenated or clean agent types.
C (blue)	Energized electrical equipment, such as motors transformers and appliances.	The most common type of extinguisher for this class is a carbon dioxide extinguisher. A dry chemical or clean agent extinguisher can also be used.
D (yellow)	Combustible metals such as magnesium, sodium, potassium, titanium and aluminum.	Special dry powder extinguishing agents are required for this class of fire, and must be tailored to the specific hazardous metal.
K (black)	Cooking oils and greases such as animal fats and vegetable fats.	A wet chemical fire extinguisher agent is used for this class of fire.

Source: www.femalifesafety.org

FIREFIGHTING STRATEGIES

Emergency operations can be categorized into offensive, defensive or passive operations and depend on many different factors. Typically, the Incident Commander will make an initial determination of strategy based on life safety factors. The overall strategy for the incident will be decided by the Incident Command Post (ICP) with support from the On-Site Supervisor. Common factors for each strategy determination include:
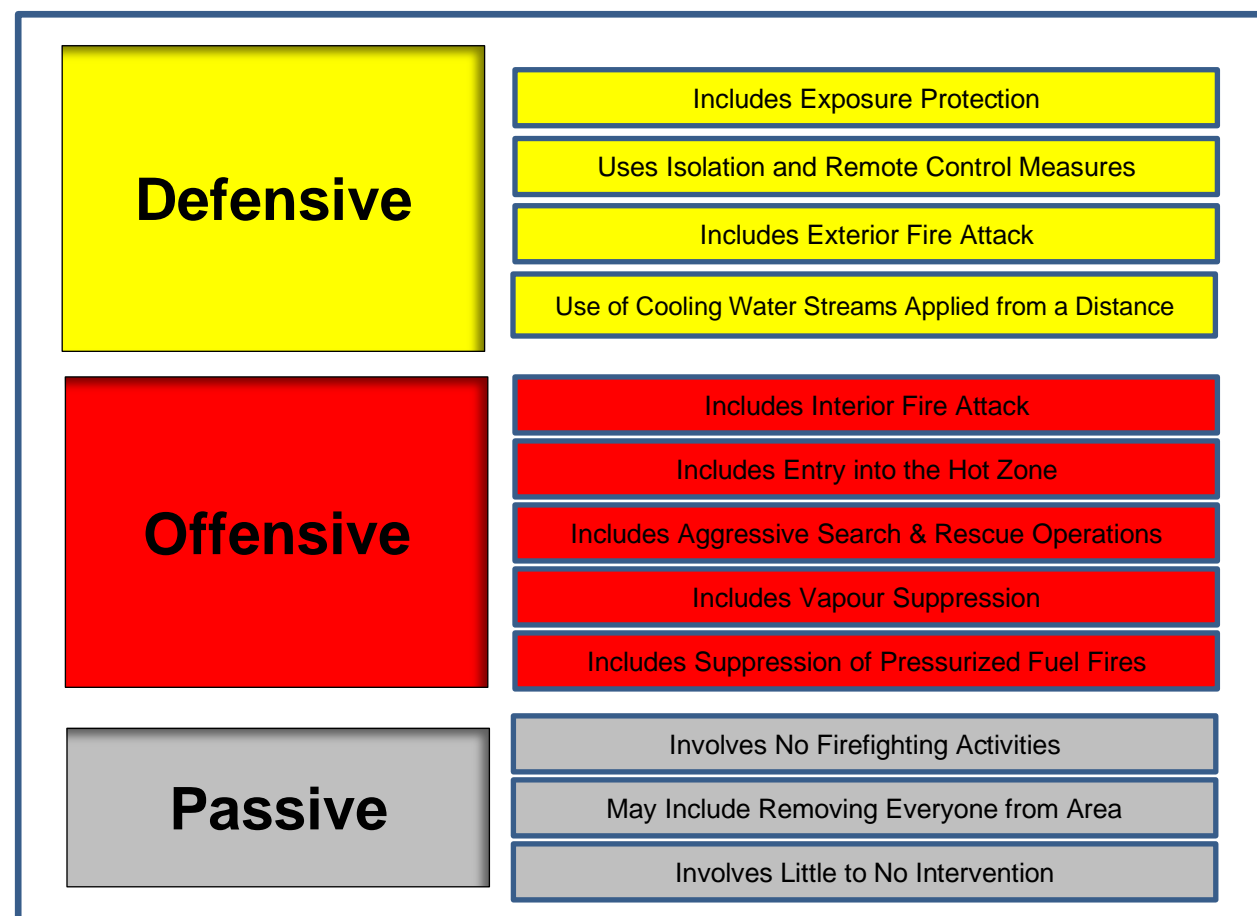
Defensive
- No savable lives.
- Fire deemed out of control.
- Little chance of salvaging property.
- Exposures need protection.

Offensive
- Savable lives.
- Fire can likely be controlled.
- Property can be salvaged.

Passive
- No savable lives or property.
- Fire is out of control and unable to be controlled with current resources.
- Area is too dangerous for emergency responders.

Defensive	
	Includes Exposure Protection
	Uses Isolation and Remote Control Measures
	Includes Exterior Fire Attack
	Use of Cooling Water Streams Applied from a Distance

Offensive	
	Includes Interior Fire Attack
	Includes Entry into the Hot Zone
	Includes Aggressive Search & Rescue Operations
	Includes Vapour Suppression
	Includes Suppression of Pressurized Fuel Fires

Passive	
	Involves No Firefighting Activities
	May Include Removing Everyone from Area
	Involves Little to No Intervention

PROCESS UNIT FIRES

Resources

- Fire Pre-Plans where relevant.

Fire Pre-Plans are tactical documents which consider:

- Firefighting philosophy and methodology to be adopted (dependent upon immediate manpower availability, location of site, mutual aid requirements, etc.).
- Notes on firewater availability including location of any monitors.
- Availability of fixed and semi-fixed systems.
- Breakdown of water and firefighting foam requirements.
- Special safety considerations.
- Water and foam calculations for tank and spill fires.

Process Unit Fires

Process units present significant risk through the processing of high temperature and high-pressure flammable liquids and gases, often times above their autoignition (flash point) temperatures (the temperature at which a product will spontaneously ignite when exposed to oxygen). The 3 main concerns associated with process units are fires, explosions, and toxicity hazards. In all cases, mitigation ultimately involves isolating the fuel supply or product release.

Jet Fires – also called ejected flame are often caused by ejection of a pressurized flammable liquid or gas from a vessel, pipe, or flange. Jet fires produce significant amounts of heat. This heat can be hazardous to both people and assets. Extinguishment of jet fires resulting from the release of both flammable liquids or gasses should be undertaken with caution and only after the fuel source has been isolated as an unignited release can cause more significant hazard scenarios to people and assets (flash fire, vapor cloud explosion (VCE)). Management of jet fires should focus on operations activities to isolate the fuel source and the protection of exposures using fire water streams and not to extinguish the flames until the fuel source has been isolated.

Pool Fires – a pool fire results when a flammable liquid is spilled onto the ground and is ignited. Use of water and firefighting foams designed for Class B (hydrocarbon) materials can be used to prevent ignition of a flammable liquid spill or to control a fire after the liquid has ignited. After extinguishment, foam should be reapplied as required to prevent reignition. Pool fires generate a significant amount of thermal radiation and black smoke.

Note: firefighting foam can be extremely damaging to the environment and steps should be taken early on in an incident to limit and contain foam solution runoff.

Flash Fires – also called a vapor cloud fire (VCF) result from the combustion of a flammable vapor and air mixture. A flash fire occurs when a vapor cloud forms from a leak and is ignited, but without creation of significant overpressure. If such overpressure occurs, the event is a vapor cloud explosion (VCE), rather than a vapor cloud fire (VCF). In a flash fire, the gas burns, but does not explode. The primary hazard associated with flash fires is thermal radiation. Management of flash fires should focus on operations activities to isolate the fuel source and the protection of exposures. Unignited vapor clouds can be dispersed using water streams though this should be done cautiously without exposing responders to risk.

Boiling Liquid Expanding Vapor Explosion (BLEVE) – a BLEVE occurs when a vessel or container containing a pressurized liquified gas fails catastrophically, resulting in a physical explosion. The explosion can result in an overpressure wave, the dispersion of projectiles from the failed container and resulting objects damaged from the explosion, and a fireball. Fireballs create significant amounts of thermal radiation. The result of a BLEVE is

total devastation to the immediate area. BLEVE's can occur when pressure containers containing liquified gases are exposed to significant heat, such as during a fire, for a prolonged period of time. Management of BLEVE's involves extinguishing fires impinging on vessels and cooling vessels with flooding quantities of water. When a BLEVE is expected, a significant isolation zone is required, usually a minimum of a 1600m radius around the vessel(s). A BLEVE may be imminent when discoloration is witnessed on the side of the vessel (indicating the vessel's vapor space is increasing) and/or a marked change in the noise emitted by the pressure relief or pressure safety valve.

Note: when a BLEVE is expected, initial isolation distances should be at least 1600m radius around the burning vessels.

Fire Balls – can result from BLEVE's, boilovers, and releases from unignited pressurized fuel leaks which suddenly ignite. A fireball results from a large fuel cloud which only burns on the outer envelope (as a result of the fuel/air mixture in the center of the cloud being too rich). Fireballs present significant hazard as a result of thermal radiation. Management of potential fireball hazards include preventative measures (cooling of vessels), awareness of potential for fireball, and maintaining an exclusion zone around areas with fireball potential or where a fireball is imminent.

Vapor Cloud Explosions (VCE) – an explosion of a cloud made up of a mixture of flammable gas and air. Unlike a flash fire, the resulting ignition of a gas cloud creates an explosion, or overpressure wave (blast wave) which can be very destructive. This is often due to the potential confined nature of the area where the explosion occurs, increasing potential for overpressure. A gas cloud can also migrate some distance away from where the leak has occurred and therefore can threaten a large area. Gas releases with potential for ignition or explosion can be managed using water streams to disperse and dilute the vapors below their ignition range.

Process Unit Emegency Effect Thresholds

Risks	General Consequence	Hazard Levels	Hazard Consequences
Fire	Heat and smoke release.	5 kW/m2	Causes second-degree burns within 40 seconds.
Explosion	The resulting mixture of combustible vapors can explode on contact with a heat source.	1 psi (or 68mbar)	The resulting overpressure wave can break windows, thus, causing injuries.
Toxic Emission	A toxic cloud forms and dissipates in the air as it moves. Can be invisible or visible	ERPG 2 or AEGL 2	The maximum airborne concentration below which or a which nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair an individual's ability to take protection actions.

Firefighting Strategies

Offensive strategy: ERT and/or third-party firefighters take tactical actions to extinguish the fire including foam solution application and/or dry chemical. Offensive strategies require specialized training, equipment, and suitable supplies of water and firefighting foam. Offensive strategies should be undertaken in coordination with Operations activities to isolate the leak or spill.

Defensive strategy: ERT and/or third-party firefighters take steps to protect the assets around the fire by using cooling water to protect exposures. Defensive strategies should be undertaken in coordination with Operations activities to isolate the leak or spill.

Passive strategy: ERT and/or third-party firefighters maintain an exclusion zone around the fire and allow it to burn, relying on Operations to take steps to isolate the leak or spill.

Process Unit Fire Checklist

- Follow the 7 First On-Scene Strategies (see Section 1: Initial Response).
- Establish safe exclusion zone considering credible scenarios including potential for VCE, BLEVE, etc.
- Determine type of fire (flash fire, pool fire, etc.).
- Determine additional concerns or considerations (potential for VCE, BLEVE, etc.).
- Establish contact with operations to understand:
  - the nature of the emergency.
  - what isolation requirements there may be.
  - what is currently being done.
  - any other risks or hazards emergency responders may not be aware of.

    Note: ensure to maintain frequent communications with Operations for the duration of the event
- Determine firefighting strategy (offensive, defensive, passive) based on available resources.
- Establish water supplies and mobilize resources (foam, personnel, equipment) based on chosen strategy.
- Mobilize 3rd party Industrial Firefighters or mutual aid partners (if relevant).
- Monitor for incident escalation including VCE, BLEVE, etc.
- Maintain exclusion zones.
- Execute on firefighting strategy.
- Put in place back-up plans in case of:
  - power failure.
  - fire main (firewater) failure or depletion of firewater source.
  - first foam attack failure.
  - protracted emergencies.
  - adverse weather during an emergency (such as cold, snow and ice).
- Consider the following potential problem:
  - fire hose connections (compatibility, threads, etc.).
  - fire equipment (difference in types, operation).
  - communications (difference in frequencies, channels).
  - foam concentrates (difference in types, proportioning percentage, etc.).
  - responder crews (full-time, volunteers, part-time, etc.).
  - shift systems (difference in shift schedules, reliefs)
  - vehicle sizes (over-large for existing roads, bridges)
- Maintain frequent communication with Operations

TANK FIRES

Resources
- Fire Pre-Plans where relevant.

  NOTE: Fire Pre-Plans identify foam application rates for tank fire and large spill fires. These rates are minimum rates and may need to be raised as much as 1.5x for larger scenarios, windy conditions, and for fire which have been burning for a prolonged period of time.

Fire Pre-Plans are tactical documents which consider:

- Firefighting philosophy and methodology to be adopted (dependent upon immediate manpower availability, location of site, mutual aid requirements, etc.) .
- Notes on firewater availability including location of any monitors.
- Availability of fixed and semi-fixed systems.
- Breakdown of water and firefighting foam requirements for foaming.

Types of Tank Fires
- Rim seal fires – fires that occur at the seals where a floating roof meets the tank wall.
- Partial/Full surface fires – fires that involve the partial or full surface of the product in the tank.
- Vent fires – fires that occur at tank vents or pressure/vacuum (PRVR) valves.
- Bund fires – fires that occur in dyked or bermed areas around a tank (including overfill ground fires).

  NOTE: Fire Pre-Plans identify foam application rates for tank fire and large spill fires. These rates are minimum rates and may need to be raised as much as 1.5x for larger scenarios, windy conditions, and for fire which have been burning for a prolonged period of time.

Types of Tanks
- Fixed roof or coned roof – tank has a fixed roof and no floating roof.
- Floating roof tank – tank has a roof which floats on top of the product. The area above the floating roof is open to atmosphere.
- Internal Floating Roof (IFR) – tank has a floating roof that floats on the product and a secondary fixed roof at the top of the tank.

Many tanks at Cenovus have fixed or semi-fixed fire suppression systems.

- Semi-fixed systems are dry-pipe systems mounted on the tanks that require Emergency Response Teams (ERT's) to pump water and foam solution through them to the product surface.
- Fixed systems are automatic or semi-automatic systems that pump foam and water solution to the tanks and only require activation via automatic or manual means.

Important Considerations
Boilover - the sudden increase in fire intensity in a crude oil tank or tank with products of mixed densities. As the fire burns, a heat layer moves down towards the bottom of the tank. Once it contacts the water layer, the water will vaporize to steam (expanding 1700 times) causing a sudden rapid expulsion of hot oil from the tank.

Note: if a boilover is expected, area should be evacuated of all personnel a minimum distance of ten times (10x) the tank diameter.

Frothover - the overflowing of a tank that is on fire when water (or other volatile hydrocarbons) boil under the surface of a viscous hot oil. This can cause product to "froth" over the sides of a tank.

Slopover - during the application of foam solution during a tank fire, a sudden expansion of the hot oil may occur, increasing the volume of the product and causing tank overflow.

Compromised Bunds or Dyke - failure to keep inventory within primary or secondary containment during emergencies could lead to the exposure of personnel and responders in the vicinity of the facility. Further, there are risks of explosion and fire from spreading oil that could not be constrained by secondary containment.

Thermal Fluxes and Radiation - thermal fluxes and radiation associated with storage tank fires pose significant risk to personnel and responders. People are affected by radiation and incident thermal fluxes during tank fire incidents by the heat released from the burning product, distance of the fire to the person, and wind speed.

Heat Stress to Responders - heat stress is common hazard in firefighting where the body's natural cooling efficiency could be impeded thus triggering heat illness. Besides the heat from the fire, the body also generates heat during physical work, exertion or exercise. Rest, rehabilitation, and hydration of emergency responders needs to be considered.

Firefighting Strategies

Tank fires present significant challenges and can escalate to complex events with catastrophic consequences if approached without an effective strategy.

Offensive strategy: ERT and/or third-party firefighters take tactical actions to extinguish the fire including foam solution application and/or dry chemical application. Offensive strategies require specialized training, equipment, and suitable supplies of water and firefighting foam.

Defensive strategy: ERT and/or third-party firefighters take steps to protect the assets around the burning tank by using cooling water to protect exposures.

Passive strategy: ERT and/or third-party firefighters maintain an exclusion zone around the tank and allow it to burn.

Tank Fire Checklist

- Follow the 7 First On-Scene Strategies (see Section 1: Initial Response).

- Establish a safe exclusion zone.

- Determine type of fire (rim seal, vent, full surface, etc.).

- Determine strategy (offensive, defensive, passive) based on available resources.

- Establish water supplies and mobilize resources (foam, personnel, equipment) based on chosen strategy.

- Mobilize 3rd party industrial firefighters (if relevant).

- Monitor for boilover, slopover conditions.

- Maintain exclusion zones.

- Execute on firefighting strategy.

- Put in place back-up plans in case of:

  o power failure.

  o fire main (firewater) failure.

  o first foam attack failure.

  o protracted emergencies.

  o adverse weather during an emergency (such as snow).

- Consider the following potential problem:
    - fire hose connections (compatibility, threads, etc.).
    - fire equipment (difference in types, operation).
    - communications (difference in frequencies, channels).
    - foam concentrates (difference in types, proportioning percentage etc.).
    - responder crews (full-time, volunteers, part-time, etc.).
    - shift systems (difference in shift schedules, reliefs).
    - vehicle sizes (over-large for existing roads, bridges).

Note: where foam solution is used to extinguish the fire, containing the foam solution should be considered a tactical priority as the foam solution can cause significant harm to the environment and Cenovus' reputation.

HOT OIL/ASPHALT LEAKS & FIRES

Leaks or spills involving hot oils such as asphalt at or above 100 C may cause additional concerns for responders where water used for suppression or foam application may vaporize quickly when contacting the hot product causing a violet reaction as water converts to steam. Risks include frothover, slopover, violent frothing of the product surface, and a potential for an increase in fire intensity if the product is ignited. The following guidance is provided for product cooling, foam application, and firefighting for hot oil products.

Product is on fire:
1. Establish water flow appropriate to the nature of the incident using an adjustable pattern nozzle (fog).
2. Establish a modified fog pattern (30 degrees).
3. Sweep the modified fog pattern quickly back and forth directly over the hot oil fire, from one side to the other, careful not to directly plunge the stream into the burning product.

    Note: The fire will "cut up" and appear aggressive as a result of the vaporization of the water stream and atomizing of the fuel surface. The net effect is the cooling of the product surface.

4. Maintain sweeping of fog pattern and monitor for signs of flame collapse (change in the sound of the fire, change in the intensity of dissipating heat, change in coloration of smoke from black to grey to white).
5. Advance on the fire when there is sign of flame collapse to expose more of the water stream to the product and maintain/increase cooling.
6. Continue cooling unless indicated that foam solution is required (high product LEL's or ignition).
7. If foam is required, apply foam solution to the fire via roll on, rain down, or bank down methods until extinguishment is achieved.

    Note: efforts should be taken during foam application operations to control, contain, and limit runoff of foam solution and/or foam-contaminated products.

8. Maintain foam blanket for vapor suppression until all sources of ignition are removed or sufficient cooling has occurred.

Note: When the hot oil fire scenario involves a full or partial-surface tank fire, use Type III foam application method (over the top).

Note: When the hot oil fire scenario involves a diked area or spill fire within a process unit, calculate the square footage and the required foam necessary for fire extinguishment.

Note: There are other methods of extinguishment for a "hot oil fire" scenario. This guideline should be evaluated in conjunction with size of the fire, accessibility, wind direction, and available resources (equipment and personnel).

Product is not on fire:
Hot Oil Leak or Spill (Without Ignition)

This guideline is to be referenced in the event of a leak or spill of hot oil (including asphalt) that potentially could ignite but has not yet ignited. This guideline applies only to leaks/spills either within containment or on the ground.

1. Secure scene and assess the situation.

2. Establish water flow appropriate to the nature of the incident using an adjustable pattern nozzle (fog).

3. Establish a modified fog pattern.

4. Sweep the modified fog pattern quickly back and forth directly over the hot oil, from one side to the other, careful not to directly plunge the stream into the hot product.

   Note: The hot oil may "cut up" and appear aggressive as a result of the vaporization of the water stream and atomizing of the fuel surface.

5. Maintain sweeping and monitor for signs of cooling (change in intensity of dissipating heat, change in coloration of smoke from black to grey to white, slower product flow).

6. As the hot oil begins to cool, advance on the hot oil to expose more of the water stream to the product and increase cooling.

7. Continue cooling unless indicated that foam solution is required (where product is above its flash point).

8. If needed, apply foam solution via roll on, rain down, or bank down methods until oil flow has slowed and cooled sufficiently.

   Note: Efforts should be taken during foam application operations to control, contain, and limit runoff of foam solution and/or foam-contaminated product.

9. Maintain foam blanket for vapor suppression until all potential ignition sources are removed and sufficient cooling has occurred.

10. Use the same procedures set forth above if the hot oil ignites.

11. If the hot oil ignites and involves a full or partial-surface tank fire, use Type 3 foam application method.

12. When the hot oil scenario involves a diked area or leak/spill/fire within a process unit, calculate the square footage and the required foam necessary for cooling and/or fire extinguishment.

   Note: There are other methods of cooling or extinguishment for a "hot oil leak/spill/fire" scenario. This is all based from size of leak/spill/fire, accessibility, wind direction, available resources (equipment and manpower). For example: dry chemical wheeled units and using the "cut method".

TANK PYROPHORICS

Within process units and tanks, pyrophoric iron sulfide can present itself, creating a potential ignition source for hydrocarbons.

Pyrophoric iron sulfide is formed by the action of corrosive sulfur compounds on iron and steel in process facilities. Iron sulfide is one such pyrophoric material that oxidizes exothermically when exposed to air. It is frequently found in solid iron sulfide scales in refinery units. If such equipment has contained asphalt, aromatic tars, sour crude, high sulfur fuel oil, aromatic gases, and similar products, the potential exists for the formation of black or brownish-colored pyrophoric iron sulfide scale, powder, or deposits on the equipment interior and in the collected residue and sludge. This can lead to spontaneous ignition of iron sulfide either on the ground or inside the equipment. When this occurs inside equipment like columns, reactors, vessels (in sour services such as coke drums, desalters, and tanks (e.g. crude oil tanks, asphalt tanks, sour water tanks) and exchangers containing residual hydrocarbons and air, the results can be devastating. Pyrophoric carbonaceous deposits are common in asphalt tanks. They typically form from the condensation of heavy vapors on the roof and walls of the tanks. At high temperatures [approximately 3500F(1770C) to 3750F(1900C)] and when oxygen is available these deposits can glow and ignite flammable mixtures.

Most commonly, pyrophoric iron fires occur during shutdowns when equipment and piping are opened for inspection or maintenance. Instances of fires in crude columns during turnarounds, explosions in sulfur, crude or asphalt storage tanks, overpressures in vessels, etc., due to pyrophoric iron ignition are not uncommon.

After the equipment is emptied and being prepared for cleaning including during ventilation, iron sulfide deposits will dry out and react with oxygen in the air, generating heat and spontaneously igniting. The equipment should be purged with gas containing low (e.g., 5%) levels of oxygen and kept wet. This approach keeps the pyrophoric deposits wet until the atmosphere is non-combustible and the deposits are either oxidized or removed. Quickly move scale and potential pyrophoric deposits to a remote area and monitor in case ignition does occur.

BUILDING AND STRUCTURAL FIRES

Building and Structural Fires (Process and Non-Process Areas)
Building and structural fires present significant risk to life safety, particularly where fires impact camp facilities where occupants may be sleeping. Further, structure fires present significant risk to emergency responders. **Only responders competent in interior structural firefighting should enter a burning building**. Building and structural fires can progress very quickly. Rapid notification and intervention in the case of building fires is important.

Structure Fire Checklist
- Follow the 7 First On-Scene Strategies (see Section 1: Initial Response).
- Notify and dispatch appropriate emergency response resources.
- Ensure emergency response resources report to On Site Supervisor (if relevant).
- Establish safe exclusion zones.
- Establish initial scene size up/determine type of fire.
- Determine tactical priorities.
- Determine initial firefighting Strategy (offensive, defensive, passive) based on available resources.
- Establish water supply and mobilize resources (foam, personnel, equipment, water tenders, etc.).
- Establish staging areas for incoming resources.
- Execute on firefighting strategy.

- Update resources as needed.

- Manage tactical priorities.

- Reevaluate strategy and tactics.

Responding Resources & Fire Ground Management

In the event of a building on fire in the **Process Area**, the first responding emergency response team leader should meet up with the On-Site Supervisor (or Operations Supervisor) as soon as possible and start to develop strategies and tactical priorities in order support Operations and the Incident Commander.

In the event of a **Non-Process Area building on fire**, the responding emergency response team leader will assume fire command and develop the strategies and tactical priorities to manage the fire. These priorities are discussed below in order of importance.

Tactical Priorities

- Life Safety.

- Incident Stabilization.

- Environment and property conservation.

- Stakeholder management.

Fire ground operations use tactical benchmarks to identify the progression through the tactical priorities. Common tactical benchmarks include:

- Primary search complete (or "all clear") – the first search of a building for occupants has been completed.

- Secondary search complete (or "all clear") – the second search of a building for occupants has been completed.

- All clear – both primary and secondary searches have been completed.

- Water on – firefighting activities involving water have been initiated.

- Containment – the fire is not contained and is no longer growing, expanding, or getting worse.

- Under control – the fire is now under control, the fire is now getting smaller as a result of isolation or firefighting activities.

- Loss stopped – the fire has been extinguished and there is no further expectation of damage occurring.

Emergency response teams manage fire emergencies by identifying tactical priorities. Common fire ground operations associated with tactical priorities include:

Life Safety

- Primary and secondary searches.

- Establishing a safety officer.

- Rest and rehabilitation of emergency responders.

- Establishing responder accountability systems.

- Risk management plans.

Incident Stabilization

- Identifying tactical benchmarks (water on, containment, under control, loss stopped).

- Controlling and extinguishing the fire in stages. Incident stabilization seeks to keep the incident from escalating, minimize its effects, and bring it under control.

<u>**Environment and Property Conservation**</u>

- Property conservation activities are but not limited to.

- Prompt interior and exterior fire ground lighting.

- Proper ventilation including both natural and mechanical ventilation.

- Salvage and overhaul.

- Containment of water and water/foam solution runoff.

<u>**Stakeholder Management**</u>

- Providing frequent status updates of fireground operations and progression through the tactical priorities.

Structural Firefighting Strategies

Offensive strategy: responders take tactical actions to access a building or structure, perform searches for occupants, ventilate the fire as needed, and to extinguish the fire. Offensive strategies require specialized training, equipment, and fireground management. Offensive strategies should only be undertaken by fire teams with specific training in performing firefighting inside structures. Offensive strategies place responders in the hot zone.

Defensive strategy: responders take steps to protect the assets around the fire by using cooling water to protect exposures and to extinguish the fire using master streams directed to the fire from outside the building. Defensive strategies keep responders in the warm zone or cold zone.

Passive strategy: responders maintain an exclusion zone around the fire and allow it to burn.

The overall strategic decision is based on the critical factors weighed against the Risk Management Plan.

Exclusion Zones

An Exclusion Zone consists of the overall zones identified which determine the level of risk to civilians and emergency responders in relationship to the incident's problems. The Hazard Zone is divided up into three (3) separate, distinct areas:

- **Hot Zone** - An IDLH environment due to heat, lack of oxygen, and/or the presence of toxic chemicals and/or the products of combustion. Workers inside the Hot Zone must be in the proper PPE for the hazards identified and require specialized training.

- **Warm Zone** - A defined area just outside of the Hot Zone that has the potential to become IDLH contaminated with the incident's products. Workers inside of the Warm Zone must also be in the proper PPE for the hazards identified (same as Hot Zone workers) and have appropriate training

- **Cold Zone** - A safe area outside of the Warm Zone that has little or no chance of becoming IDLH contaminated with the incident's hazards. Workers in the Cold Zone require no PPE. The Cold Zone typically contains the strategically positioned command post, staging, rehab, logistical support, etc.

Strategy & Incident Action Planning (IAP) Considerations

Fire team leaders with the On-Site Supervisor develop their strategy and the IAP based on the initial size-up of the incident's critical factors, relaying to Incident Command plans, actions and activities. These critical factors are very dynamic; they are either getting better, or they are getting worse, but they never stay the same. The current and forecasted incident conditions must drive the strategy, the IAP and the risk-management plan.

<u>**Risk Management Plan (RMP)**</u>

- Fireground operations will mainly fall into one of two strategies, offensive or defensive. These two strategies are employed based on a standard Risk Management Plan that is to be employed in ALL IDLH Hazard Zones (or hot zones).

    o We will risk our lives a lot, to save savable lives.

    o We will risk our lives a little, to save savable property or the environment.

    o We will NOT risk our lives for lives or property that are already lost.

<u>**Strategic Water Supply Considerations**</u>

An uninterrupted water supply should always be established using a fire hydrant, pressurized water supply or a portable water tender to supply operation whenever an offensive "working fire" is declared. Whenever possible, departments should try to utilize a water supply from a fire hydrant as opposed to using a drafting/water shuttle operation. A defensive strategy MUST be considered when adequate fire flows cannot be established early in the operation and when sending responders into a building or structure.

Other Fireground Information

Personnel Accountability Report (PAR) - Involves a roll call with confirmation that all personnel assigned to a crew, or multiple crews assigned to one (1) geographic area of the Hazard Zone are accounted for and have an adequate air supply to safely exit the Hazard Zone.

Level 1 Staging - Initial staging area that may be dictated or directed by a response team leader or On-Site Supervisor utilized by needed resources to support fire ground operations.

Level 2 Staging - Used for larger incidents and is defined as a centralized staging location, adjacent to the incident scene where later arriving resources will assemble prior to being assigned to the incident scene.

WILDFIRES

Cenovus operates in forested areas where the threat from wildfire and smoke from wildfires can be significant. Wildfires can cause harm to people, personnel entrapment, damage to facilities and negatively impact operations. Smoke from wildfires is a threat to the health and safety of personnel by reducing visibility and air quality.

It is critical to consider evacuation routes whenever a wildfire is present in the area. If evacuation routes become compromised it may be necessary to shelter in place. Each Cenovus site has a specific Wildfire Response and Evacuation Plan that should be consulted for procedures and tasks that are specific to each site.

Wildfire Hazards

<u>**Smoke**</u>

Smoke from a wildfire poses a serious health and safety risk and can lead to evacuation of sites and/or health problems. The principle health threat from wildfire smoke is caused by exposure to particles suspended in the air (particulates). For people with pre -existing respiratory and cardiovascular disease, exposure to particulates can cause persistent cough, phlegm, wheezing, and difficulty breathing. There is also the risk of aggravating pre-existing medical conditions. Cenovus Health and Safety have developed a Wildfire Smoke Monitoring Guidance (see Wildfire Evacuation Plan) to provide instruction on actions to take depending on the amount of particulate matter present in the atmosphere.

<u>**Carbon Monoxide**</u>

Carbon monoxide is generally less of a threat to health and safety during a wildfire than particulates. However, carbon monoxide can pose a serious threat when sheltering in enclosed spaces with little or no access to fresh air. Carbon monoxide detectors should be used when fires are close to a site and when sheltering inside clean

air shelters if the time spent indoors exceeds one hour. Symptoms of carbon monoxide exposure include headache, weakness, dizziness, confusion and visual impairment. Prolonged or heavy exposure may result in a coma or death.

Wildfire Embers

Airborne embers can travel long distances on wind currents. The accumulation of embers near vent openings or under eaves, stairs, and other areas may cause a fire near a structure. Certain actions can be taken to reduce the risk of a fire caused by embers including equipping flammable structures and hydrocarbon storage tanks with sprinkler systems, keeping disposition areas free of spilled flammable petroleum products, and removing vegetation around tanks.

During periods of ember travel, fire watch should be assigned to monitor vulnerable areas for embers.

Radiant Heat

Structures in close proximity to forest vegetation can be subject to very high temperatures during a wildfire. Heat from a wildfire can damage or ignite structures adjacent to vegetation, causing fire to spread from structure to structure.

For additional information, reference the site's Wildfire Response and Evacuation Plan

DANGEROUS GOODS FIRE

Dangerous goods fires can pose serious risks to responders and extreme caution should be taken when actively engaging a dangerous goods fire. Many chemicals are flammable, and all chemicals have different properties and can react differently (in some cases violently) to fire and water. The North American Emergency Response Guide – 2020 (ERG) should be consulted for all incidents involving dangerous goods. Other resources include, but are not limited to, the manufacturer's SDS and emergency response phone line.

Initial Scene Control

Initial scene control should focus on evacuation and isolation of the surrounding area. The ERG provides provide initial isolation distances based on the material, water reactivity, weather, etc. and should be consulted very early in the incident. Active firefighting should not take place until all personnel at risk have been evacuated, the product has been identified, and initial scene isolation has been achieved.

Firefighting Foam

Fires involving a spill of flammable liquids are generally controlled by applying a firefighting foam to the surface of the burning material. The foam moves across the surface of the liquid and extinguishes the fire. It will also form a barrier between the liquid and the surrounding air thus preventing reignition. This foam blanket requires reapplication periodically in order to maintain it. Foam can also be used for flammable product spills to prevent ignition.

Any use of foam takes careful consideration as there are many factors that affect the choice of foam and the application method. AFFF foams require significant post-emergency clean up the benefits of using AFFF foams needs to be carefully weighed against the potential environmental and economic risks of using foam.

Exercise caution in selecting a fire extinguishing method since there are many factors to be considered in a dangerous goods incident. Water may be ineffective in fighting fires involving some materials as its effectiveness depends greatly on the method of application. Further, water can react with various products, combining to form a more hazardous product or causing the product to react violently. Products should always be identified and the ERG referenced prior to determining a firefighting or emergency management strategy and tactics.

Note: When using foam, containment of foam and foam solution run off should be treated as a tactical priority. The Environmental Advisor assigned to the asset should be contacted immediately to support containment efforts and clean-up efforts.

Vapor Control

Limiting the amount of vapor released from a pool of flammable or corrosive liquids reduces risk to people and assets. It requires the use of specialized equipment, appropriate chemical agents, and skilled personnel wearing proper protective clothing.

Vapor control methods need to be carefully selected for the specific material involved and performed in a manner that will mitigate, not worsen, the incident. There are several ways to minimize the amount of vapors escaping from pools of spilled liquids including:

- Special foams.
- Adsorbing agents.
- Absorbing agents.
- Neutralizing agents.

Consult the ERG or material's SDS for specific vapor control options.

WELL CONTROL FIRES

Resources
- Field Level Initial Response Plan (FLIRP).

Oil well control is the management of the dangerous effects caused by the unexpected release of formation fluid, such as natural gas and/or crude oil, upon surface equipment of oil or gas drilling rigs and escaping into the atmosphere. Technically, oil well control involves preventing the formation gas or fluid (hydrocarbons), usually referred to as kick, from entering into the wellbore during drilling or well interventions. Release of flammable liquids or gasses can result in an explosion and fire which presents significant risk to persons in proximity to the well and challenges in managing the fire due to location remoteness and potential lack of access to firewater.

A blowout is defined as the uncontrolled and expulsion of formation hydrocarbons from the well, potentially resulting in a fire.

Response Checklist
- Initiate First On-Scene Strategies (Section 1: Initial Response).
- Establish safe exclusion zone and initiate public protection measures.
    - consider potential for toxic/sour release.
- Assess situation.
    - determine resource requirements.
- Determine and prioritize objectives.
    - resources should be prioritized to perform rescue or manage sick/injured persons.
    - identify operations moves to mitigate or downgrade the emergency.
- Mobilize third-party resources as necessary including well-control contractor (see Section 8: Area Specific Information for a list of vendors, specific to the operating area).

    Note: When using foam, containment of foam and foam solution run off should be treated as a tactical priority. The Environmental Advisor assigned to the asset should be contacted immediately to support containment efforts and clean-up efforts.

- Continually assess exclusion zones and effectiveness of public protection measures.

- Consider the following potential problems:
    - weather factors.
    - potential for wildfire.
    - environmental factors (control of run off & other impacts).
    - sourcing of firewater for firefighting operations.
    - potential for a prolonged event.
    - fatigue in emergency responders.

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SECURITY INCIDENTS

A security incident is a security-related occurrence, threat or action that has adversely affected people, the environment, assets and economic stability, or could potentially do the same.

General Notes on Prevention of Security Incidents

As defined in the CSA Standard Security Management for Petroleum and Natural Gas Industry Systems (Z246.1-21), a Security Management Program should be implemented to ensure security incidents and threats are identified and managed with appropriate safeguards and response procedures in place.
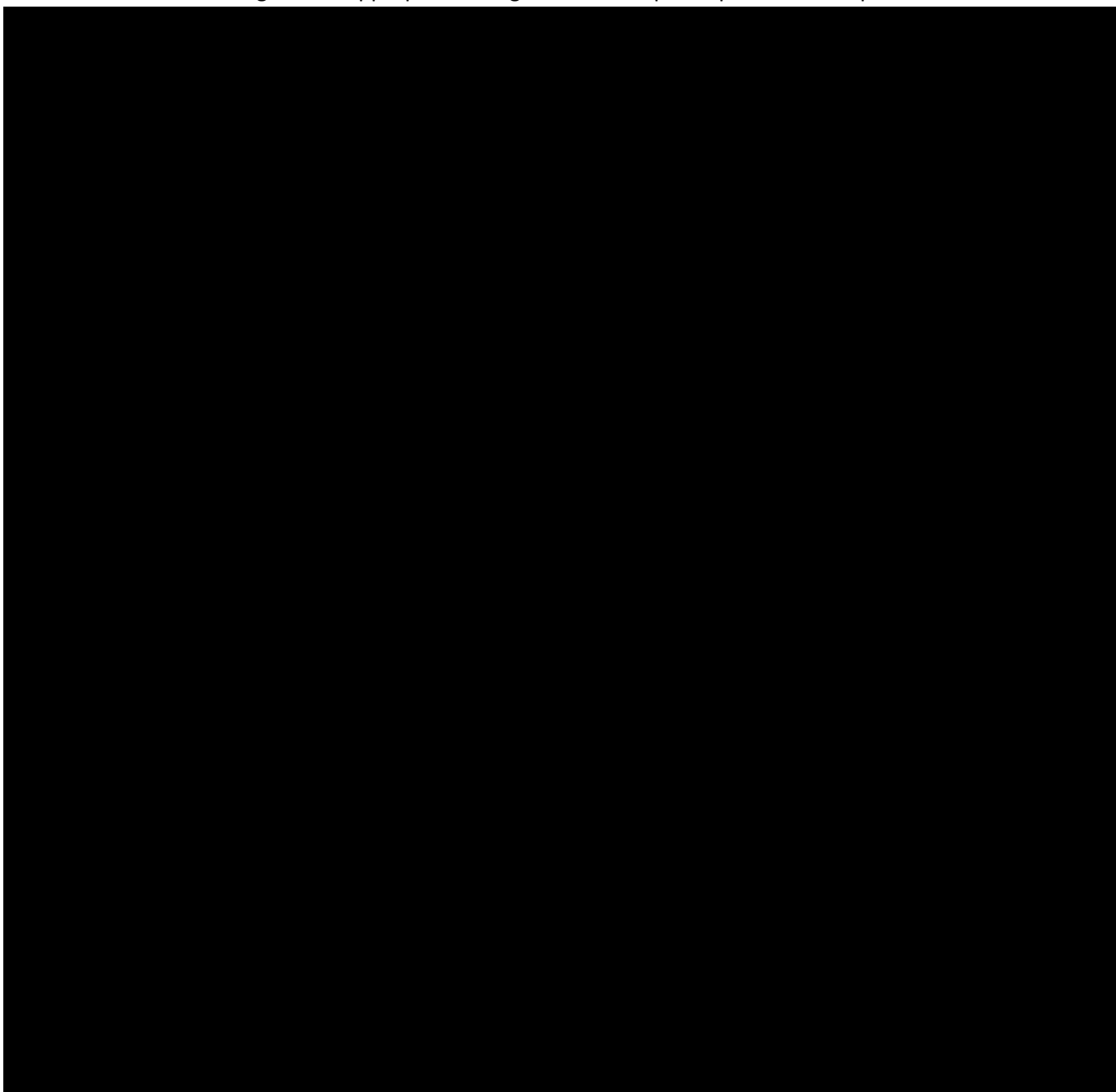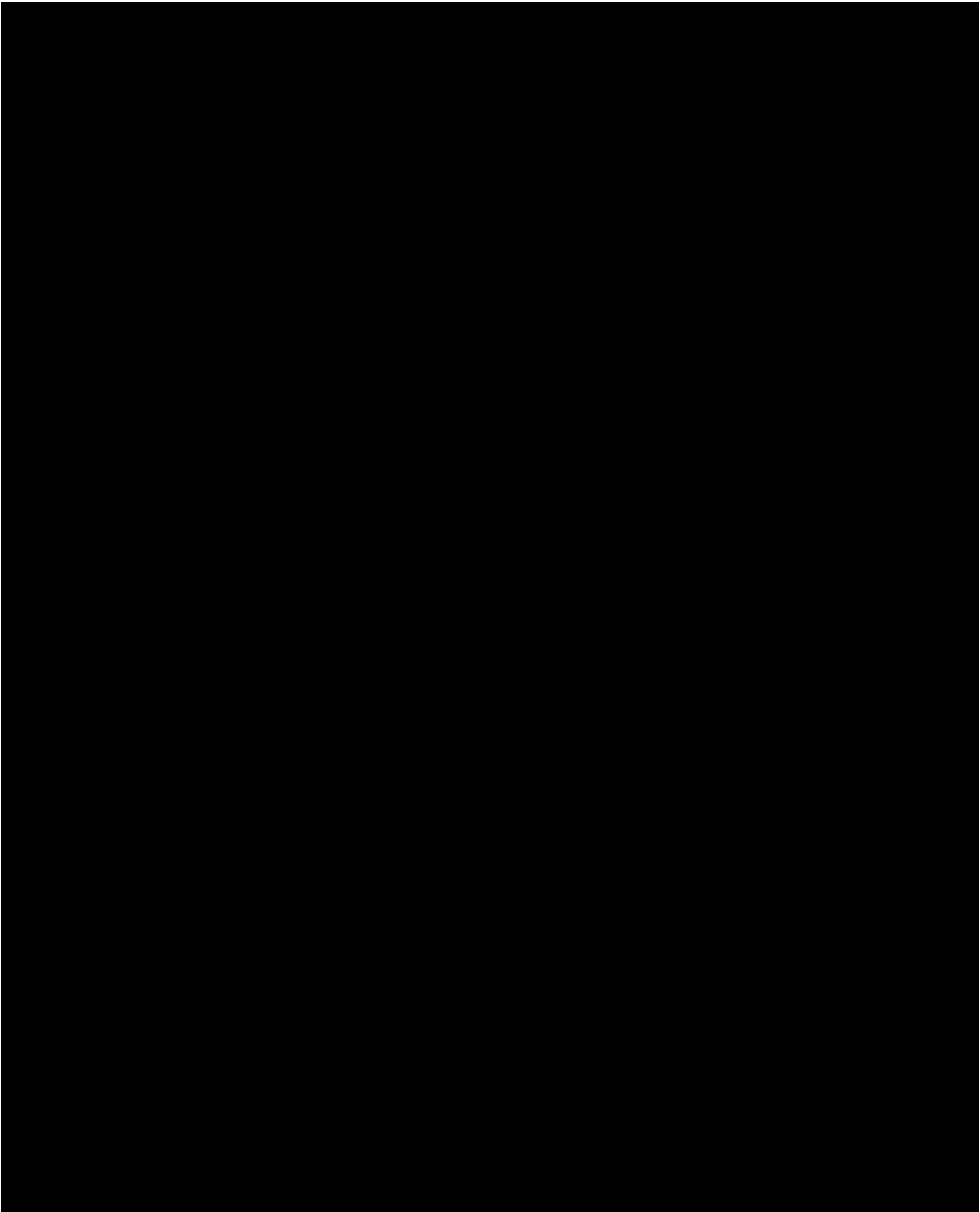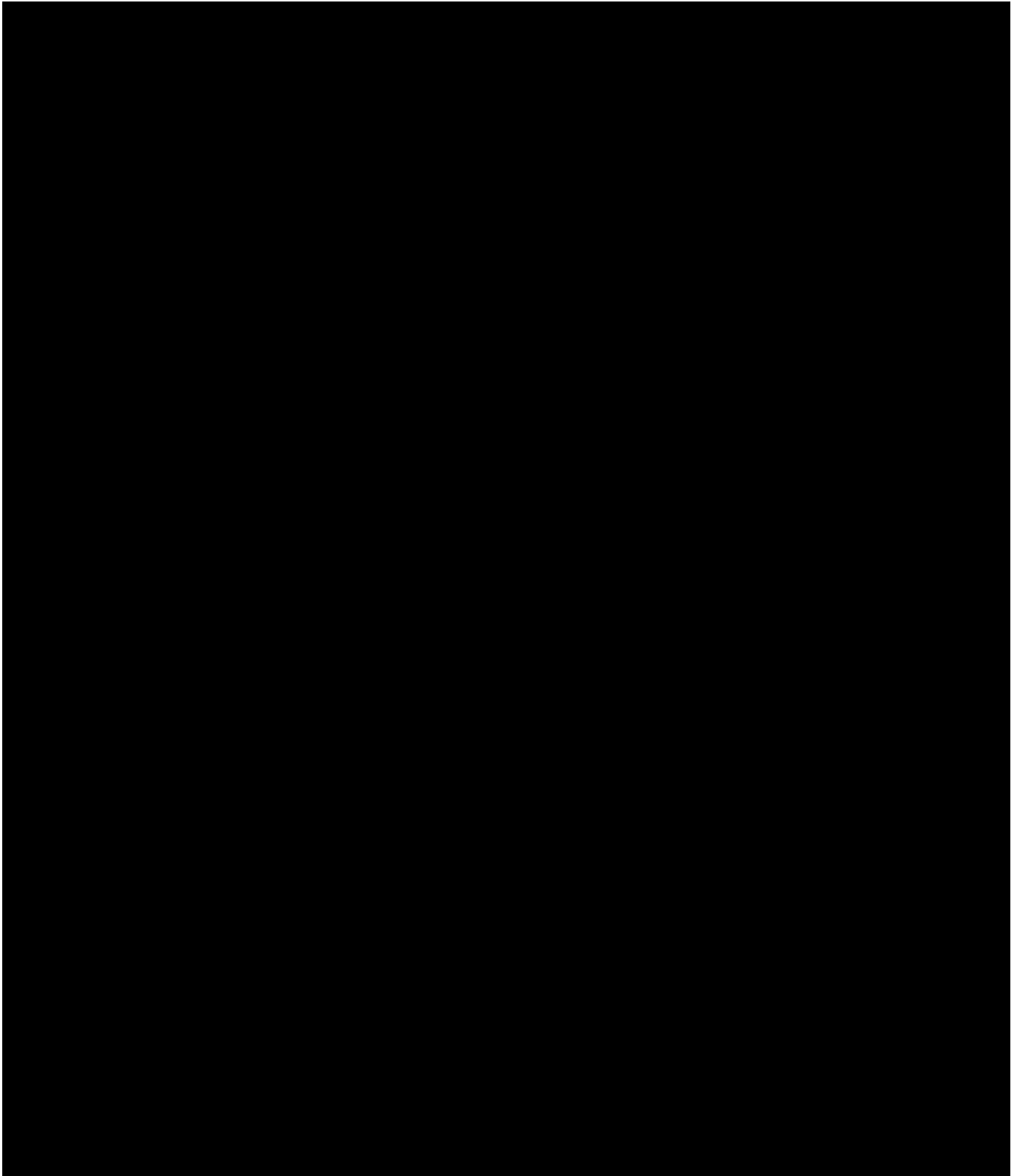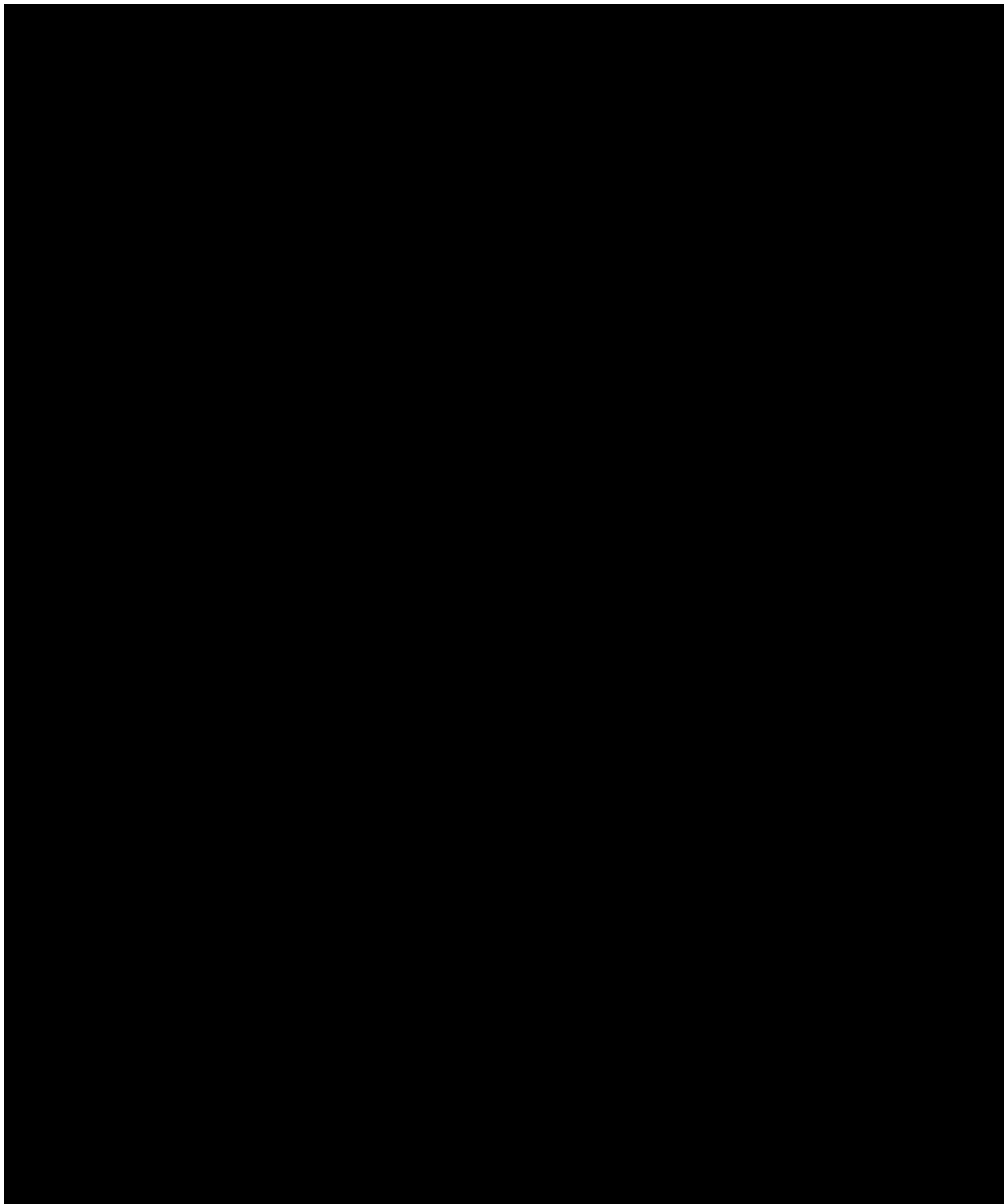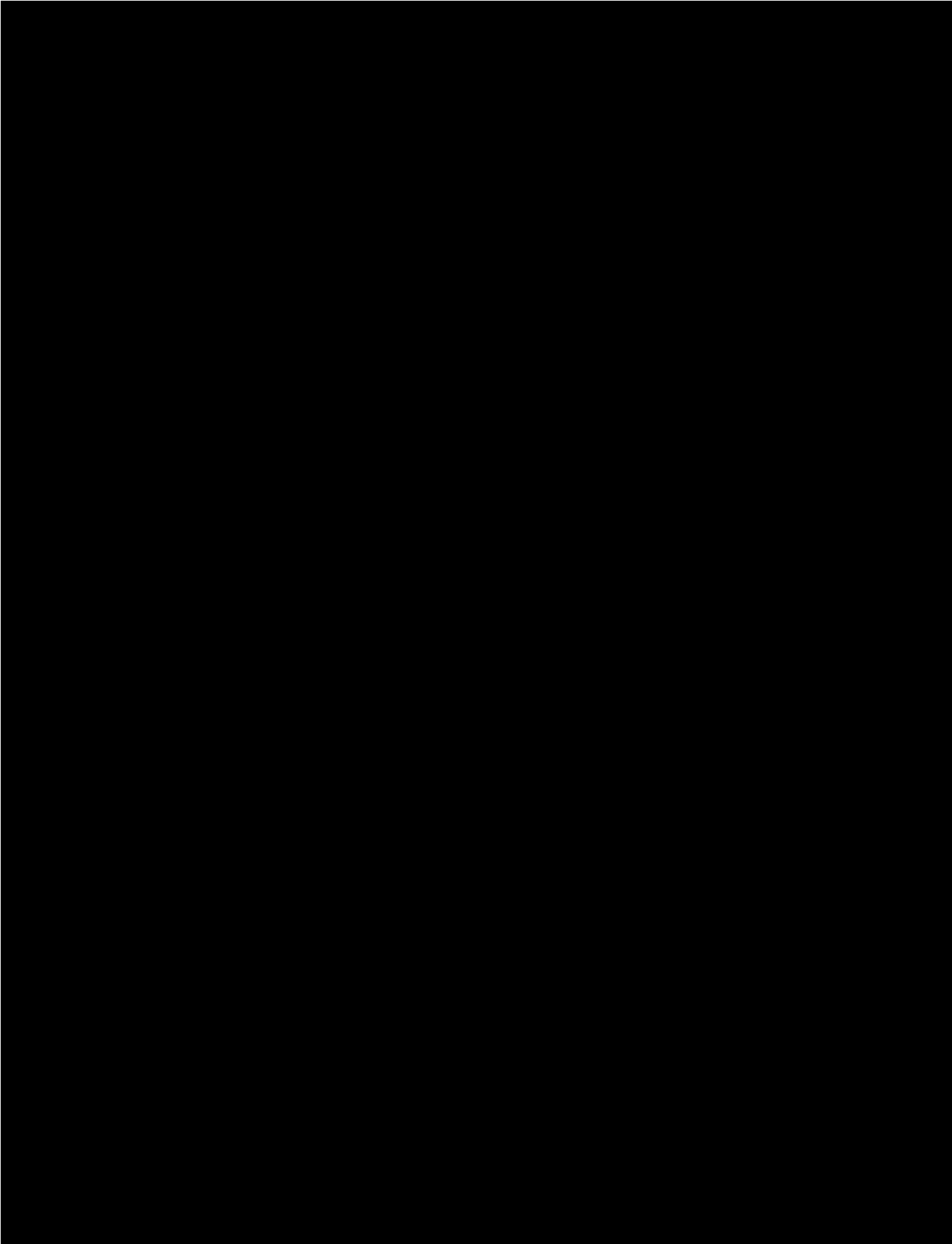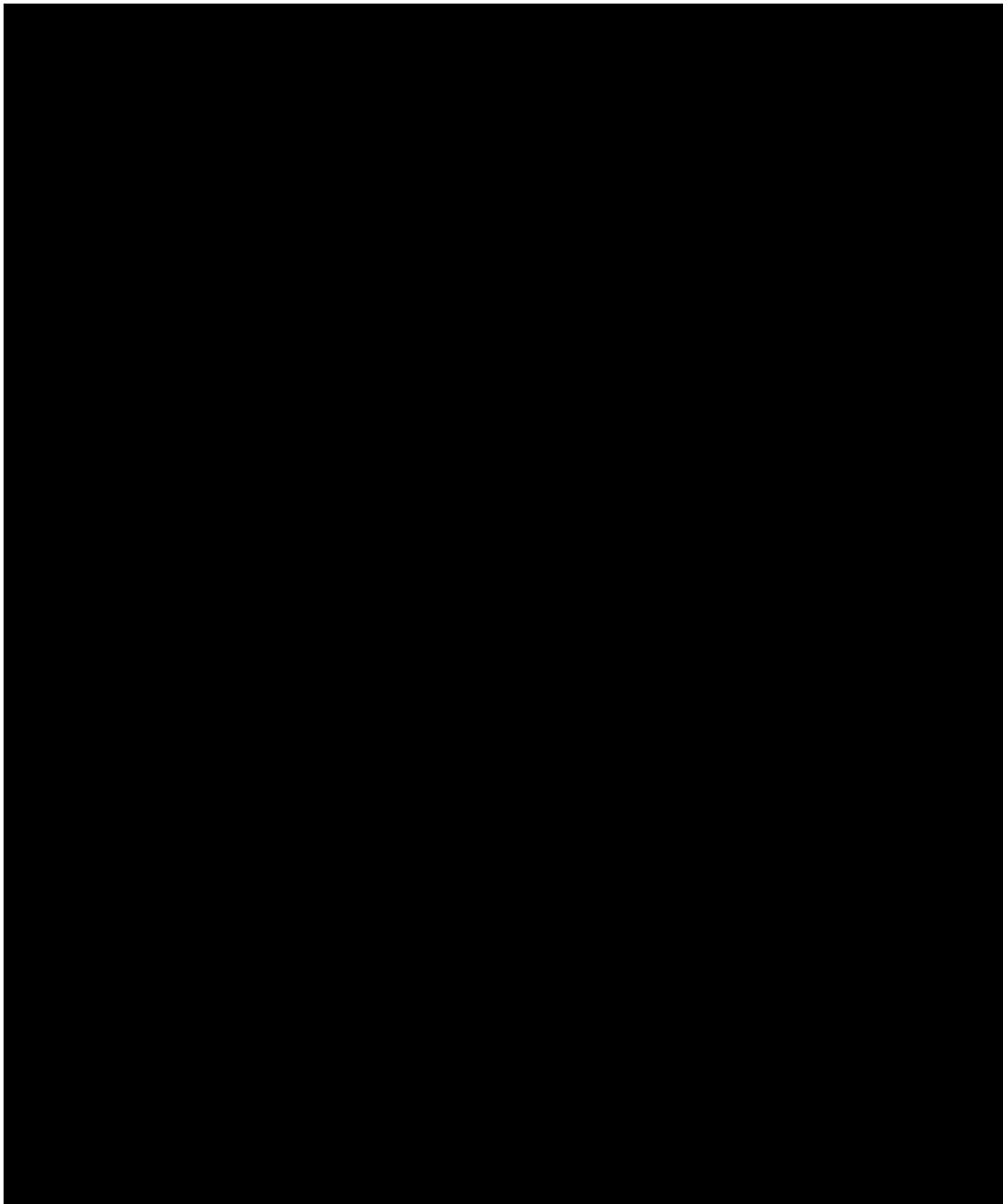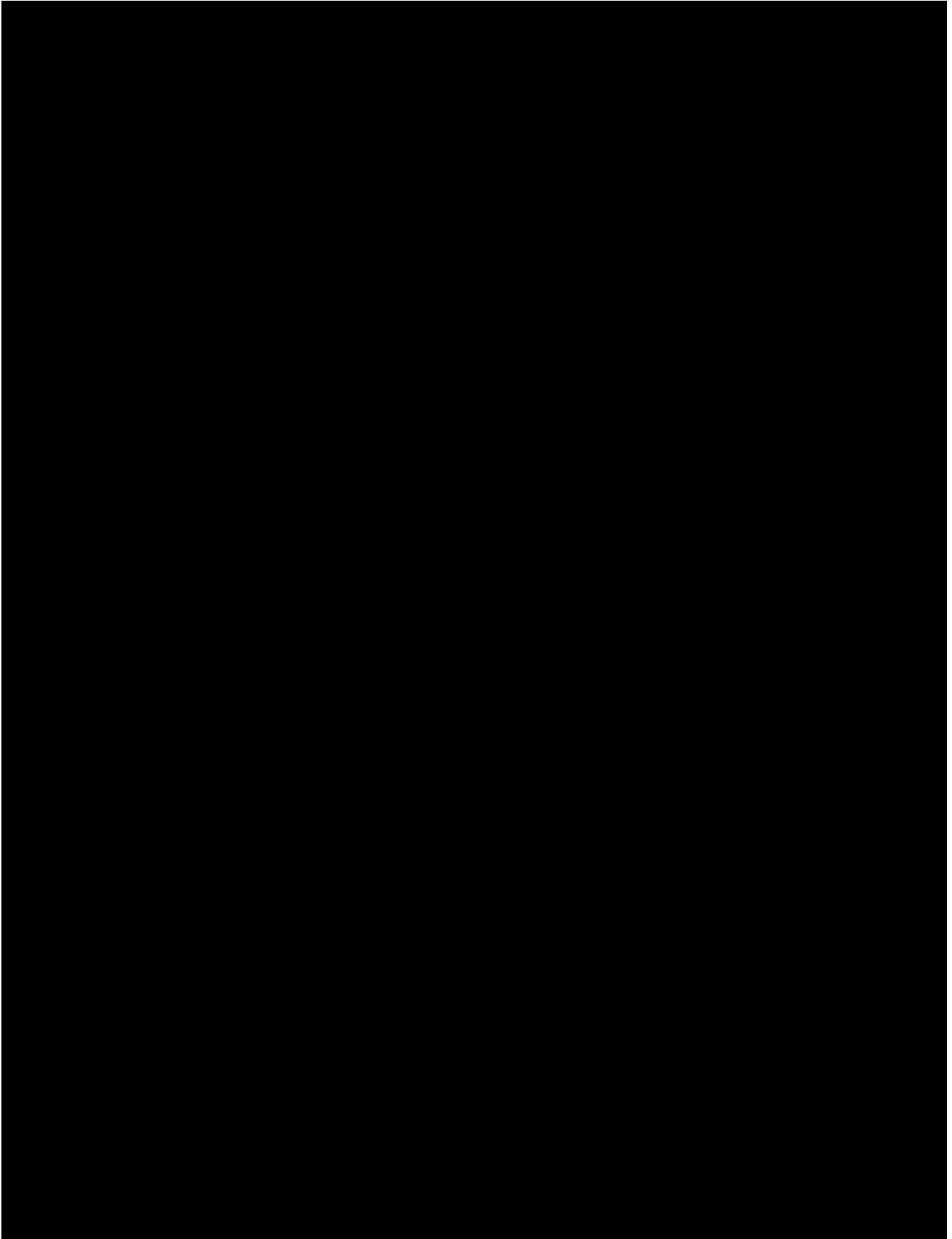
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WELL CONTROL

INTRODUCTION

Procedures for handling emergencies are essential to ensuring the protection of life, property and the environment.

This section is intended to act as a guideline, and is not intended to replace sound judgement.

The equipment and procedures specified address various well control scenarios ranging from routine well control operations to situations involving a total loss of well control which necessitate the immediate mobilization of intervention equipment and personnel.

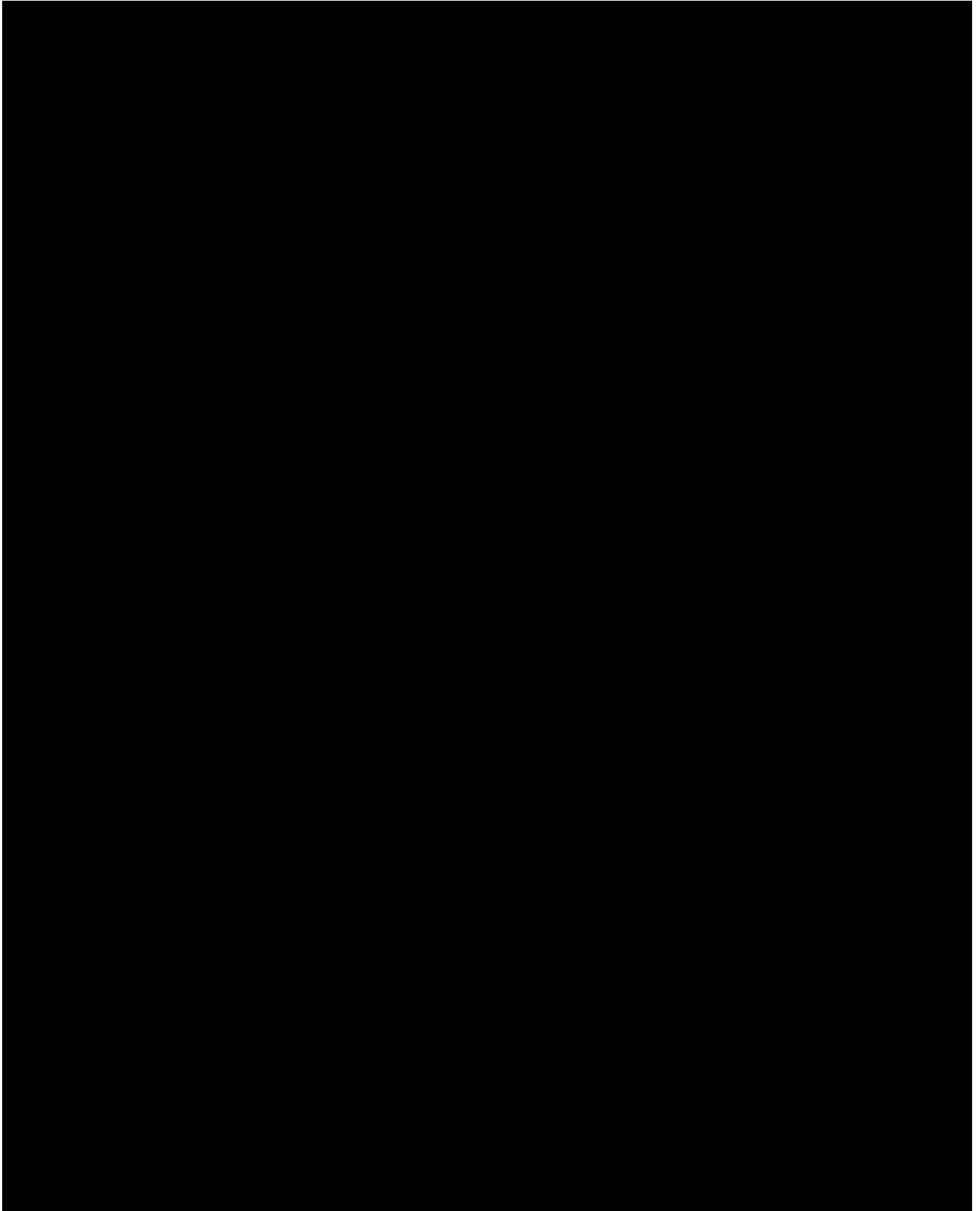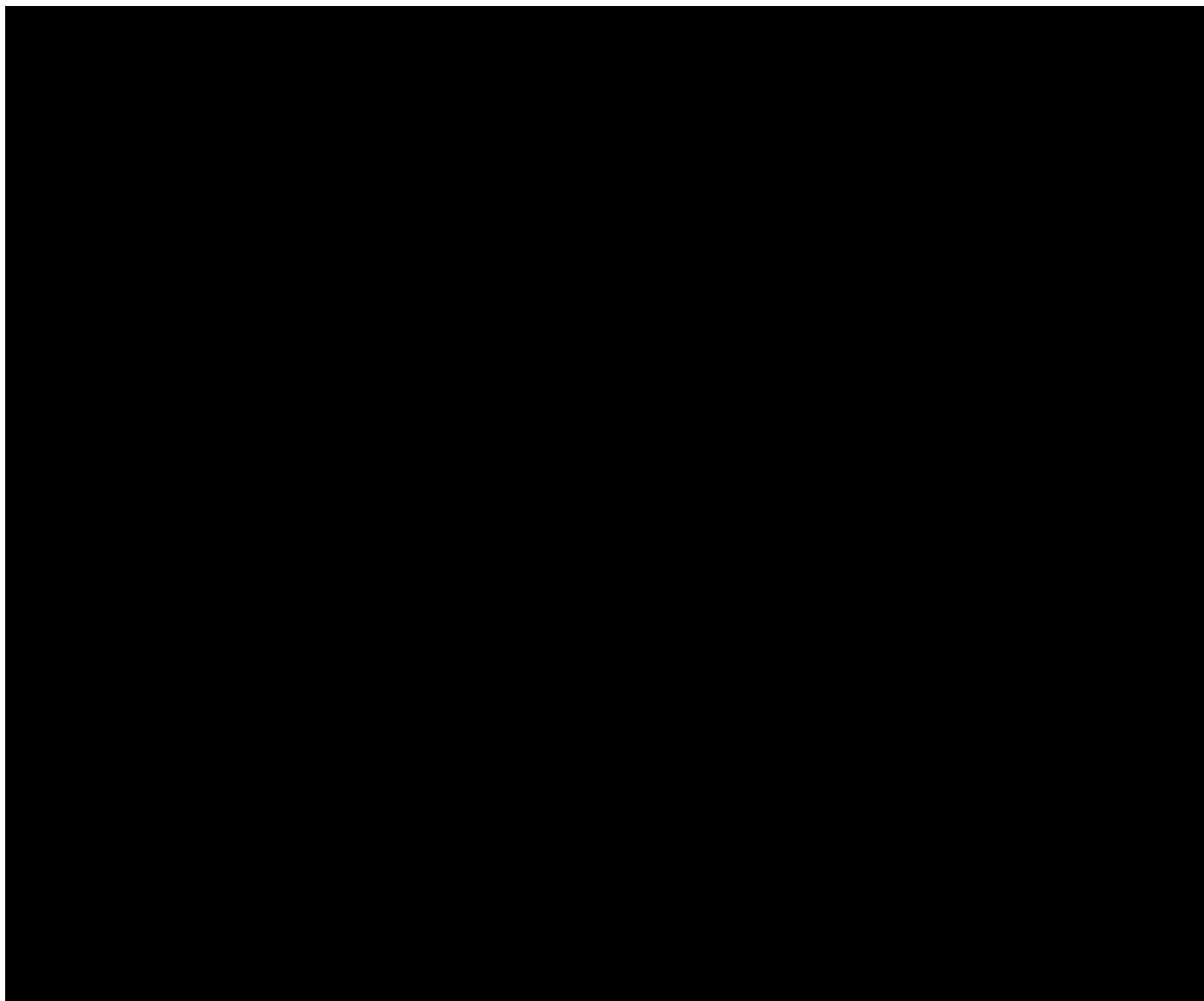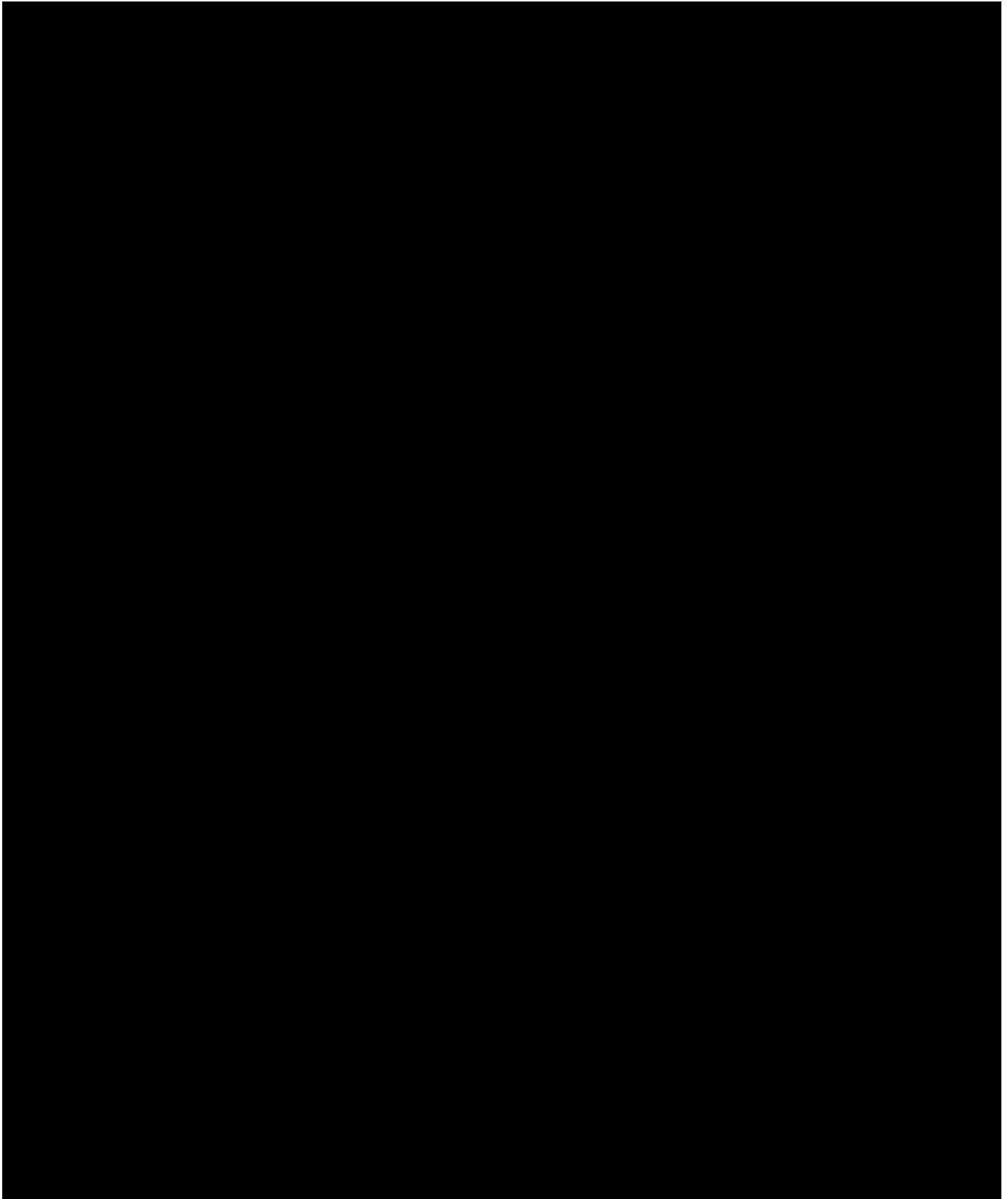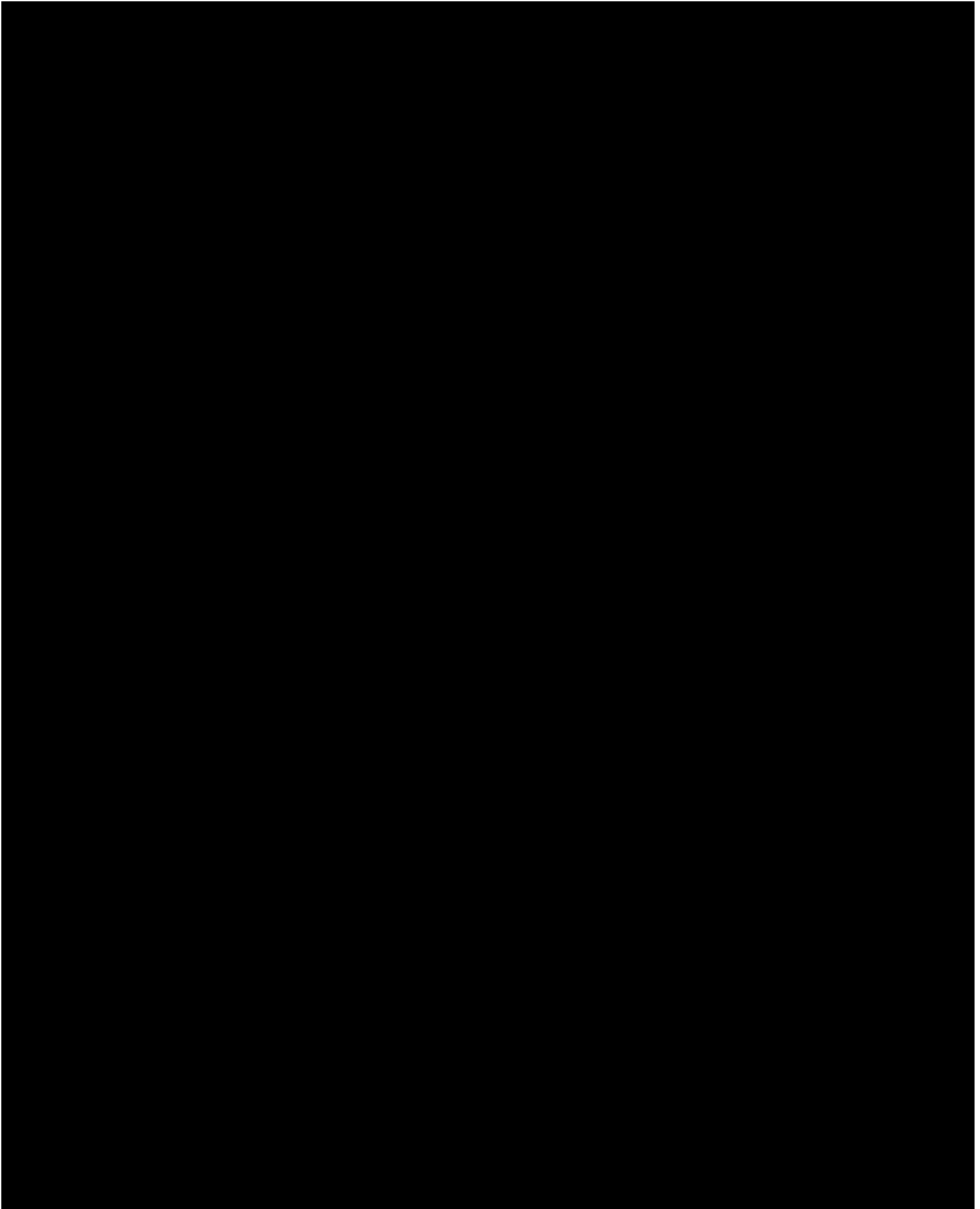This document is written with drilling operations as the primary focus. However, it also applies to construction, completions, servicing, workover and production operations. This plan assumes that adequate oil spill contingency plans are in place and will be implemented in the event of a well control emergency. The primary objective of the ERP is to establish a process for responding to and safely managing well control emergencies.

This includes:

1. Protecting the personnel at the site in the event of a well control emergency.
2. Defining the internal notification protocols at the onset of a well control emergency.
3. Defining the external notification protocols at the onset of a well control emergency.
4. Preventing further damage or injury while adequate equipment and personnel are being mobilized.
5. Defining the critical information that is required in order to determine the appropriate response level and strategies.
6. Organizing personnel and briefing them on their roles during the emergency response and the subsequent management.
7. Pre-selecting sources and developing mobilization plans for personnel, equipment, materials and services typically required for implementation of well control procedures.

For loss of well control support, contact the Cenovus 24-Hr Emergency Number 1-877-458-8080

For well fire information, refer to Section 4: Fire Response.

SITE SAFETY PLAN

Prior to initiating any well control operation, a comprehensive site safety plan should be developed and implemented through the safety section of the ICS. The site safety plan should cover all safety management aspects of the task at hand. It should be written so that it is flexible enough for modifications and updates to be easily made and incorporated.

The site safety plan should be comprehensive and include, at minimum, the following elements:

- Site description and identification of site's zones
    - Hot zone
    - Warm zone
    - Safe zone
- Site hazards
    - Physical hazards
    - Chemical hazards
    - Toxic/gas hazards
- Personal protective equipment (PPE) requirements
    - Designate the on-site command post
    - Identify and designate staging area for well control equipment
    - Establish communications
- Site access
    - Check-in points
- Communication
    - Safety channel designation on radios
    - Alarms
- Emergency medical services
- Environmental monitoring services required
- Safety meeting schedule
- Safety drills

HAZARD ASSESSMENT

Safe, successful well control operations require risk identification, mitigation and management. Thus, the primary function of the well control team (intervention and well control operations unit leaders) will be hazard identification via a thorough assessment of the situation.

There are numerous potential hazards associated with a serious well control situation. The well control team, under the direction of the well control operations unit leader, will assess the situation for the following hazards:

- Combustible gas accumulation/dispersion
- Accumulations of combustible/flammable fluids
- Ignition hazards
- Explosive materials
- Radioactive materials
- Over-pressured surface equipment/potential catastrophic failures
- Flow lines – anchoring, erosion
- Leaking flanges
- Stability/competency of the sediment surrounding the rig
- Potential instability of rig equipment and tubulars
- Hydrocarbon inventories and potential hazards associated with production equipment

The results of the hazard analysis will be incorporated into the site safety plan. Additional personnel, equipment, services and/or safety procedures/ measures required to deal with the identified hazards will be specified and submitted to the field operations team leader.

H₂S OPERATIONS

When drilling in areas of known H_2S, rig crews should:

- Be trained in H_2S safety measures.

- Have the appropriate safety equipment.

- Use equipment with proper PSL (priority substance listing) rating for H_2S service.

Any influx into the wellbore (kick) should be assumed to contain H_2S. The size of the influx, amount of under balance, formation character, weather conditions, etc. should be considered when deciding to circulate out or pump away the influx.

If the decision is made to circulate out the H_2S kick, clear the rig floor and restricted area of all unnecessary personnel and take the following additional precautions:

- Rope off the rig substructure – to include BOPs, choke lines, choke manifold and mud return areas – and identify as restricted area. No one shall enter these areas without proper breathing apparatus, H_2S monitor, and specific approval.

- Continuously monitor the H_2S concentration level in the mud returns.

- The drilling supervisor shall alert affected downwind facilities and population.

- The drilling supervisor shall implement any other precaution deemed necessary.

- When circulating, all personnel involved in the well control operation will mask-up at least 30 minutes prior to bottoms up. The flow from the choke should be diverted through the gas buster, and the gas should be flared. The mud stream will return to the active system where any remaining gas can be removed by the degasser and the use of an H_2S scavenger.

SHUTTING-IN THE WELL

It is very important to shut-in the well as soon as possible when flow is suspected. The following procedures are standard industry practices for a "hard" shut-in of the wellbore:

Well Shut-in Procedures:

While Drilling/On Bottom

1. Space out the drillstring and sound the alarm.

   - Position the Kelly or top drive so no tool joints are in the preventers

   - If possible, have uppermost tool joint at connection height above rotary table/ rig floor

2. Shut down the rotary/top drive and the pumps.

   - Stop rotating

   - Stop the mud pumps

3. Check for well flow. If well is flowing, continue with next step (4).

4. Shut-in the well.

   - Close the designated BOP (blowout preventer)

   - Ensure the choke is closed

   - Open the choke line hydraulic opening valve

   - Verify the well is shut-in and the flow has stopped

While Tripping

1. Sound the Alarm

2. Stab the safety valve on drillstring.

   - Make up fully opened safety valve to uppermost tool joint

   - Close safety valve once properly made up

3. Space out the drillstring.

   - Position the drillstring so that no tool joints are in the preventers

4. Check for flow. If the well is flowing, continue with next step (5).

5. Shut-in the well.

   - Close the designated BOP

   - Close the choke and open the choke line HOV (hydraulic operated valve)

   - Verify the well is shut-in and the flow has stopped

WELL CONTROL EVENTS

The goal of this section is to demonstrate various control issues that may arise during drilling operations, particularly during periods when the potential for a sudden escalation of control issues are high. It will outline the various personnel, equipment and procedures required to prevent a well control problem from becoming a well control emergency. The levels outlined below are intended to act as a guideline, and there has been no effort made to classify events by their probability of occurrence. Nothing herein is intended to replace experience or sound judgement when dealing with a control event.

Low Level Event

Low level events involve situations that are either common to routine operations or do not pose significant risk to personnel. In most instances, Low level events can be resolved using standard operating / drilling procedures, commonly available equipment, personnel and techniques.

Examples of Low level events include, but are not limited to, the following scenarios:

- Well "kicks" (influxes) of manageable volume and intensity that are not complicated by mitigating circumstances.

- Mild to moderate loss of circulation.

- Loss of production tubing integrity resulting in sustained pressure on production casing < 50% of casing burst rating. Loss of tubing integrity includes failure of wellhead seals and downhole equipment.

- Loss of production casing integrity resulting in sustained pressure on intermediate casing < 25% of casing burst rating. Loss of casing integrity includes failure of wellhead seals.

- Minor surface leaks that can be isolated via remote means or accessed and isolated manually without significant risk to personnel.

Low Level Event Considerations

- Weighting materials and mud chemicals should be evaluated for kick circulation (consider using driller's method if materials are low or if suspected swabbed kick).

- Monitor surface equipment during kick circulation in order to quickly identify any leaks.

- Monitor pressure on outer casing string during kick circulation in order to quickly identify pressure communication between the strings of pipe.

- Be prepared to immediately close pipe ram if annular begins to leak.

- If productive zones are exposed, monitor well closely for signs of flow during circulation losses.

- Small surface leaks that can be isolated should be isolated remotely if possible. Adequate safety precautions should be in place before approaching even small surface leaks.

- Closely monitor outer casing strings if sustained casing pressure results from tubing or down hole equipment failures.

Medium Level Event

Medium level events involve circumstances that are not commonly encountered during routine drilling operations and pose the potential for significant risk to personnel, equipment and/or the environment. A Medium level event may require specialized well control personnel, equipment and/or techniques in order to be safely resolved.

Examples of Medium level events include, but are not limited to, the following scenarios:

- Well kicks complicated by influx size or intensity (under-balance), pipe off bottom, plugged tubing / drillstring, washout, plugged choke, etc.

- Severe loss of circulation.

- Small surface leaks that cannot be easily or safely isolated.

- Loss of production tubing integrity resulting in sustained pressure on production casing >50% of casing burst rating. Loss of tubing integrity includes failure of wellhead seals and downhole equipment.

- Loss of production casing integrity resulting in sustained pressure on intermediate casing >25% of casing burst rating. Loss of casing integrity includes failure of wellhead seals.

- Loss of protective casing integrity resulting in sustained pressure on surface casing (any pressure).

Medium Level Event Considerations

- Weighting materials and mud chemicals should be evaluated for kick circulation (consider using driller's method if material supplies are low or if suspected swab kick).

- Monitor surface equipment during kick circulation in order to quickly identify any leaks.

- Monitor pressure on outer casing string during kick circulation in order to quickly identify pressure communication.

- Be prepared to immediately close pipe ram if annular begins to leak.

- If productive zones are exposed, monitor well closely for signs of flow during circulation losses.

- If the thrust created by the current or anticipated surface pressure acting on the cross-sectional area of the pipe approaches or exceeds an amount equal to the buoyed weight of the pipe string, the pipe should be secured at the surface. This may require the use of conventional equipment such as drill pipe clamps, chains and/or cables. The situation may eventually require the use of slip rams and other measures. The well control specialists/engineers should be consulted and mobilized if such a situation develops.

- Monitor mud/gas separator equipment for signs of overload while circulating large gas influxes.

- Consider mobilizing additional liquid mud and LCM (loss circulation material) if conventional lost circulation techniques are ineffective.

- Consider the possibility of stripping/snubbing of slick BHA (bottom hole assembly) versus perforating or severing drill collars to accommodate high concentration LCM placement and/or barite pills, gunk pills, etc.

- Evaluate the possibility of casing failure due to wear as a cause of lost circulation. Note that this could quickly become a High level event if an influx is taken.

- Consider using temperature log to determine exact point(s) of losses (ambient temperature fluid pumped from the surface will enhance identification).

- Prepare to deal with gas migration while preparing to strip pipe to bottom (water-based mud systems).

- Annular BOP (blowout preventer) failure can be expected while stripping if closing pressure is not reduced. Consult with BOP manufacturer for recommended procedures and practices for stripping.

- Improper bleed-off during pipe stripping can lead to underground blowouts or additional influxes. Review procedures carefully before attempting to strip pipe to bottom. Allowances must be made for gas migration and influx elongation due to pipe entry in water-based systems.

- If no pressure increase or a transient pressure fluctuation is observed while lowering pipe (stripping), an underground flow may be in progress. If this is confirmed, a High level event should be declared.

- If surface pressures are too high for safe stripping operations (including situations where the pipe is "light"), an off-bottom kill should be considered using volumetric and circulation techniques (i.e., volumetric control until influx is above bit then constant bottom hole pressure circulation).

High Level Event

High level events present serious and immediate risks to personnel, the environment and assets. These situations require the immediate application of specialized techniques and well-developed safety assessment and hazard mitigation programs.

Examples of High level events include, but are not limited to, the following scenarios:

- Surface blowout (drill pipe, BOP, production tree, broach, etc. with or without fie).

- Underground blowout with insufficient casing set so that the well cannot be brought under control by pumping heavy mud simultaneously down the drillstring and annulus using rig pumps.

- Surface pressure beyond the pressure rating of equipment (including tubulars).

- Other situations that constitute a clear and present danger to personnel, environment or equipment that cannot be resolved via conventional means.

High Level Considerations

The activities defined in the interim action plan section should be initiated immediately.

These include, but are not limited to:

- All personnel should be accounted for and moved to a safe upwind location.

- Medical attention should be given to any injured personnel.

- The well site should be secured.

- Further notifications by the operator/contractor's incident command structure (ICS) team.

- Notification to local/provincial/federal authorities.

- Information gathering and assessment of the situation should be initiated.

Complete or partial rig evacuation is likely under most High level events. Re-manning of the rig should be attempted only under the direction of on-site well control specialists/engineers. If the arrival of the well control specialists/engineers is delayed, such action(s) should be discussed in detail and agreed upon with the well control specialists/engineers before being attempted by operator/contractor personnel.

The first task will be to determine the critical aspects of the situation, perform a hazard analysis and establish safe working principles for the intervention (i.e., hot zones, safe areas, access control and accounting, emergency evacuation plans, etc.)

A minimum number of personnel will enter the location. A well site command post will be designated in a safe area, and all operations will be directed from it. Restrictions will be placed on personnel movement between command post and the rest of the location; personnel accounting procedures will be established to monitor the personnel on location at all times. Rig evacuation and shutdown will render critical equipment unusable. A plan will need to be developed to identify components that will be required for intervention purposes and to provide sufficient power. The equipment that may be needed during such an event includes, but is not limited to:

- ❑ Draw works
- ❑ Top drive
- ❑ Mud pumps
- ❑ BOP hoists

- ❑ Air / hydraulic winches
- ❑ Hydraulic chokes
- ❑ BOP accumulator charge pumps
- ❑ Iron roughneck

IMMEDIATE RESPONSE ACTIONS – FIELD

While intervention activities will be dictated by an event's severity and magnitude, the Immediate Response will be consistent and uniform for any event. This action plan does not intend to replace sound logic or engineering judgment – it is a guideline only.

Well control emergencies require common sense and professional judgment on the part of all personnel involved in the intervention.

Evacuate All Rig Personnel
- Evacuate rig and move personnel to designated safe area.
- Account for all personnel.
- DO NOT re-enter area until authorized.

Secure Location
- Secure the perimeter to prevent area population, news media, etc. from accessing the well site area.
- Seek assistance from the local police/RCMP agency.

Shut Down Fired Equipment
- All field (or non-intrinsically safe) equipment should be shut down as per established rig contractor guidelines and procedures.

NOTE! The above actions should only be undertaken if they do not involve risk to the safety of personnel.

Establish Safety Zone
- The area immediately around the wellhead is designated the hot zone. Access to the hot zone is strictly limited to well control personnel. Based on wind and other conditions, the hot zone may change throughout the course of the event. The boundaries should be closely monitored and changes made accordingly.
- The safe zone is located away from the well and has minimal impact from the blowout. The command post will be located within the safe zone. The safe zone should have two means of ingress and egress.
- The warm zone is between the hot zone and safe zone. Access to the warm zone will be monitored and restricted to essential support personnel only.

Initiate Fire Watch
- Identify any engines that may have been left running.
- Identify any other possible ignition sources.

Implement Operator's Emergency Response Plan
- Notify operator's office – give status of the incident.
- Refer to phone list of well control specialists.

Identify Hazardous Materials on Site
- Identify the material and location on the well site of any hazardous material.
- Present information to the well control specialists upon their arrival at the well site.

Monitor Well Conditions
- Appoint a rig crew member to observe the well from a safe location outside the hot zone and record all changes in the flow at the wellhead.
- Recorded changes should include changes in flow, noise, etc.
- The collected information will be important to the well control specialists/engineers in completing their investigation and analysis of the situation.

Implement Pollution Abatement Measures
- Working in the safe zone only, use heavy equipment to establish the safe drainage and storage of well flow away from the wellhead area.
- Prevent any well flow runoff from entering any public ditch, drainage, culvert or septic system, streams, waterways, roadways, etc.
- A fluid containment plan should be discussed with the well control specialists/engineers and implemented as quickly as possible.

INITIAL EVALUATION AND INFORMATION GATHERING

Certain information is crucial in developing an effective intervention plan and immediate response. This duty will fall upon the operator/contractor's personnel at the rig.

The following information should be gathered and documented so that it can be passed on to well control specialists.

- Operation at the time of the incident

- Last observed pressures

- Present configuration of the well bore – casing, drill pipe, drill collars, packers, depths, geology, fluids, etc. at the time of the incident

- BOP equipment in use at the time of the incident – position of all rams, subsea BOP pod status, and top drive safety valves, etc.

- Last known status of wellhead or BOP components – open, closed, locked, damaged, etc.

- Rig equipment shutdown level initiated, well control actions implemented

- Estimate of flow rates and flow characteristics (gas and water)

- Extent of damage sustained by the rig

- Size and location of any boil at the surface

- Other information as dictated by the situation

The information from the initial evaluation will be conveyed to a well control specialist for planning purposes and should be included in the permanent records.

In the initial stages, the information will be used to determine the feasibility of a quick resolution (i.e., pumping kill fluids, bridging agents, etc.) if it exists. If possible, this should be done before the situation deteriorates, eliminating this type of intervention.

IMMEDIATE RESPONSE ACTIONS – OFFICE

Upon notification from the field, the Incident Commander (the person designated to manage well control emergencies) shall review the information and, if deemed necessary, enact the ERP which activates the Incident Command Structure (ICS).

A command post should be designated within the operator/contractor's office, if possible, and the designated command staff and operations staff shall meet to review the current situation and initiate the various assigned tasks and duties.

The operator/contractor's office should immediately contact a well control specialist to discuss the incident and possible mobilization of well control personnel and equipment.

Discussion with well control specialists regarding the initial mobilization of equipment and personnel will be done at this time. A list of all equipment and services ordered should be noted. Information regarding the location, route details, trucking or flying time and a full manifest, etc. will need to be gathered and properly documented.

Key Response Teams
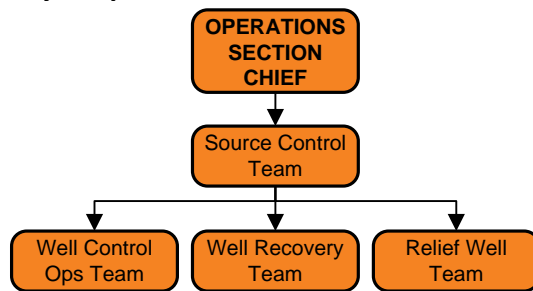
Source Control Team – Reports to the Operations Section Chief

Well Control Ops Team – Responsible for well intervention activities at the well site

Well Recovery Team – Responsible for planning and executing well recovery operations

Relief Well Team – Responsible for planning and executing the relief well operations

INTERIM ACTION PLAN

The following tasks can be assigned and implemented while waiting on the well control specialists to arrive at the well site. If there are any questions or concerns, contact a well control specialist. before initiating any task.

Do not attempt any task that will endanger personnel.

Monitor Well Conditions
- Maintain time log as to the well's condition

Secure Location from Public
- Set up a no-fly zone
- Utilize local police and fire to handle security and traffic

Organize Well Site Layout
- Designate the on-site command post
- Identify and designate staging area for well control equipment
- Establish communications

Identify and Secure Sourcing of Water
- Establish storage for water at the well site
- Arrange transportation of water to well site; initiate civil work away from wellhead
- Establish second point of access to the wellhead
- Grade for pollution drainage and containment
- Prep staging area and wellhead site

Initiate Safety Measures
- Set up gas monitoring system
- Identify safety hazards on location
- Initiate development of site safety plan
- Secure emergency medical services/ medevac for the well site

Other Considerations
- Potential for event to escalate
- Protect collateral assets
- Evacuation of population
- Voluntary ignition of uncontrolled flow

Special Considerations for Suburban Settings
- Air pollution
- Gas plume concentration/dispersion
- Smoke
- Hydrogen sulphide gas (H_2S)
- Ground pollution
- Contamination of local water supply
- Contamination of ditches/ drain systems
- Ignition
- Explosions
- Heat radiation
- Other wells
- Collateral assets (buildings, homes, etc.)
- Broaching of surface
- Utilities
- Power lines
- Pipelines

RESPONSE METHODOLOGY OF WELL CONTROL EVENT

Intervention activities will be dictated by the event's severity and magnitude.

The activities required to regain control of the blowout well will depend on specific circumstances and will vary with each scenario. The course of action(s) will be discussed and mutually agreed upon by the operator/ contractor and the well control specialists/engineers.

In summary, the major activities of a High level blowout and fire usually include:

Assessment/Evaluation – An initial assessment or evaluation by the operator/contractor(s) and a well control specialist will determine the course of action, which will result in well control being regained safely in a minimum amount of time. Equipment requirements beyond those given in the initial response will be identified.

Site Preparation – Will involve preparing the location for equipment placement, pollution containment and drainage.

Rig-up Firefighting Equipment – To establish necessary firewater cover will involve developing a method of supplying and storing the necessary water volume (frac tanks/trucks, nearby natural water supplies, earth pits, etc.).

Debris Removal – Will involve clearing of equipment and damaged rig components that impede access to the wellhead. It may require abrasive jet cutting for severing of heavy structural pieces.

Capping – Placement of suitable control device(s) on wellhead. It may require removal of existing wellhead and installation of a new wellhead for capping.

Preparations for Kill Operations – Will proceed along with intervention and capping operations.

Divert – The well may be diverted following capping operations for additional diagnostics work or until kill operations are initiated.

Kill Operations – Appropriate kill operations will commence following capping. Kill operations will be based on downhole configuration, casing integrity, and on other issues. Options include shut-in/bullhead, dynamic kill pump operations, snubbing, etc.

Return Well to Normal Operations – Will involve repair to wellhead components, casing repair, etc.

Remediate Location – Remove and properly dispose of any pollution on location.

TYPICAL EQUIPMENT REQUIREMENTS

Heavy Equipment
The heavy equipment typically required during the course of a well control operation may include:

- Bulldozers, Caterpillar D-8 with tail winches
- Cranes, 75-125 ton, hydraulic or lattice boom
- Track hoe, Caterpillar 235, 200 HP, 2-yard bucket
- Forklift, Caterpillar 966, 30,000 capacity
- Air compressor, 185 CFM, 125 PSI, with 150-foot 300 PSI hose
- Light towers, self-contained, diesel powered
- 15 – 20 Frac tanks, 300-500 bbl capacity each for on-site water storage

Specialized Firefighting/Well Control Equipment

Specialized firefighting/well control equipment that would typically be mobilized may include:

- Athey wagon, with various accessories, conventional or hydraulic
- Fire pumps, 2,500 – 4,500 gpm capacity
- Fire monitors with portable shields
- Hose container with various suction and output hoses
- Fuel tank
- Blowout tool container, with miscellaneous support tools
- Air compressor

TYPICAL SUPPORT SERVICE REQUIREMENTS

These services are typically required during the course of, or during some phase of, a well control operation. These services should be put on "standby" notice, but not mobilized until requested by the well control specialist.

Typical support services may include:

- High-pressure pumping equipment
- Drilling fluids specialist/supplier
- Wellhead specialist/supplier
- Vacuum tank truck services
- Welding crews
- Roustabout crew, supervisor with fire-man crew
- Personnel safety services
- Medical/medevac services
- Wireline logging services, full diagnostic capabilities
- Machine shop services

Once the initial assessment and planning is completed, the well control specialists/engineers will be able to provide the operator/contractor with a more detailed list of the support equipment and services that will be required.

RELIEF WELL CONSIDERATIONS

Relief wells should be considered for the following scenarios:

- Successful surface intervention unlikely – low probability of surface intervention being successful.
- Surface intervention operations require undue risks for well control personnel.
- Well flow broaching the surface.
- Significant pollution or other environmental damage imminent during long-term well intervention operation.

Multiple relief wells should be considered for the following scenarios:

- High hydraulic requirements for kill – requires multiple wells.
- High probability of drilling problems in single relief well effort.
- High degree of uncertainty regarding blowing well's position.

Relief wells are engineered, planned and initiated with the assistance of the well control engineers who understand the technical requirements for a successful well kill operation.

WELL SERVICING AND RIGLESS ACTIVITIES

If well control is lost, the safety of on-site personnel is the highest priority. Mitigating environmental damage and preserving the equipment to the extent possible is of secondary importance. The guidance below is provided to ensure the required actions are taken for life safety and effective response to a loss of well control event is initiated.

Drilling & Completions On-Site
As soon as loss of well control is identified:

- Stop work immediately.
- Sound the alarm.
- Evacuate all non-essential personnel to the predetermined muster station.
- Contact Emergency Services if required.
- Utilize on site personnel to secure the site and initial public safety as required (i.e. roadblocks, rovers).
- Situation assessment will be completed by the Well-Site Supervisor.
- Operations will be notified as indicated in the FLIRP.
- Site safety assessment will be completed to identify safety concerns and safe access to the well.
- If safe to do so, the Well-Site Supervisor will begin standard well control response procedures.
- In the event the well control cannot be established, or the well is not safe to access, the IMT will be activated to support well control activities.
- Drilling or Completions or Production Operations will assume the role of the Incident Commander and declare the Level of Emergency.
- The Incident Commander will determine whether the Husky Well Control Team should be notified.
- Local Operations will assist as required with Public Protection Measures.
- Complete any other internal or external notifications as required.

NOTE: Well Control Emergency Response Plans have been developed for some areas and can be referenced.

Drilling & Completions Supervisor Off-Site

As soon as loss of well control is identified:

- Stop work immediately.

- Sound the alarm.

- Evacuate all non-essential personnel to the predetermined muster station.

- Contact Emergency Services if required.

- Utilize on site personnel to secure the site and initial public safety as required (ie. roadblocks, rovers).

- Situation assessment will be completed.

- Operations will notify E&PS and deploy appropriate groups.

- Site safety assessment will be completed to identify safety concerns and safe access to the well.

- If safe to do so, operations will begin standard well control response procedures.

- In the event the well control cannot be established, or the well is not safe to access, the IMT will be activated to support well control activities.

- Drilling & Completions or Production Operations will assume the role of the Incident Commander and declare the Level of Emergency.

- The Incident Commander will determine whether the Husky Well Control Team should be notified.

- Local Operations will assist as required with Public Protection Measures.

- Complete any other internal or external notifications as required.

NOTE: Well Control Emergency Response Plans have been developed for some areas and can be referenced.

TOXIC GASES

HYDROGEN SULPHIDE (H$_2$S)

Background

Hydrogen sulphide (H$_2$S) is a flammable, colourless gas with a characteristic odour of rotten eggs that people can smell at low levels. It is also known as hydrosulphuric acid and sewer gas. H$_2$S occurs naturally in crude petroleum, natural gas, volcanic gases and hot springs. It can also result from bacterial breakdown of organic matter. Industrial sources include emissions from industrial paper plants; combustion of coal, fuel oil and natural gas (including gas flares); kraft paper mills; tanneries; and emissions from sewers and waste treatment facilities.

H$_2$S is released primarily as a gas and spreads in the air. Its residence time in the atmosphere ranges from about one day to more than 40 days, depending on ambient temperature and other atmospheric variables, including humidity, sunshine and presence of other pollutants. The decreased temperatures and decreased levels of hydroxyl ions in northern regions in winter increase the residence time. When released H$_2$S gas is ignited, it will change into sulphur dioxide (SO$_2$), be carried into the atmosphere and dispersed over a larger area a lower concentrations.

Signs and Symptoms

Exposure to hydrogen sulphide may cause irritation to the eyes, nose or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulphide can cause a loss of consciousness and possibly death. In most cases, the person appears to regain consciousness without any other effects. However, in some individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory and poor motor function. No health effects have been found in humans exposed to typical environmental concentrations of hydrogen sulphide (0.00011-0.00033 ppm).

Acute Exposure Effects

The effects on humans will vary depending on the duration and H$_2$S concentration of exposure. The health effects of acute exposure to H$_2$S are shown in the following table. Acute exposure reflects a range from a few seconds up to several weeks.

Acute Health Effects of Hydrogen Sulphide

Concentration in Air (ppm)	Description of Potential Health Effects
1	A noticeable odour that may be offensive to some individuals. People may temporarily experience mild symptoms of discomfort, including nausea, headache, and irritability due to the odour. Asthma symptoms may worsen.
10-20	An obvious offensive odour. Temporary eye irritation may occur after a single exposure and last several hours. Symptoms include mild itchiness, dryness, increased blink reflex and slight watering. Some people may experience headaches, nausea and vomiting. Symptoms of asthma, bronchitis or other forms of chronic respiratory disease may worsen.
50	A strong, intense offensive odour that may irritate eyes and breathing passages. Eyes may be itchy, stinging, and red with increased blinking, tearing and tendency to rub eyes. Breathing passages could feel tingly or sting, with increased tendency to clear throat and cough. Symptoms of pre-existing respiratory disease may worsen. No permanent injury to eyes or breathing passages is expected unless exposure is prolonged. Odour–sensitive individuals may experience headaches, nausea, vomiting and diarrhea.

100	Initially there is a strong objectionable odour that lessens with prolonged exposure due to olfactory "fatigue." Eyes and breathing passages are often irritated within one hour of exposure. Eyes may be sore, stinging, burning, tearing, redness, swelling of eyelids, and possible blurred vision. Respiratory irritation may include sore throat, cough, soreness or stinging of breathing passages, and wheezing. The symptoms of asthma, bronchitis or other forms of chronic respiratory disease will worsen. Odour may cause headache, nausea, vomiting and diarrhea.
250	There may or may not be an odour present due to olfactory paralysis. Eyes and breathing passages will become irritated within minutes of exposure, and the irritation will worsen with longer exposure. The outer surface of the eyes and inner eyelids will be inflamed, red and sore. Eyes will begin watering and tearing immediately and vision may be blurred. Eyes may be permanently harmed if exposure is prolonged. Respiratory irritation will include sore throat, cough, difficulty breathing, soreness of chest, and wheezing. Asthma symptoms will worsen. People may experience "systemic" effects, including headache, nausea and vertigo depending on duration of exposure.
500	No odour is present due to olfactory paralysis. Severe irritation and possible permanent injury to the eyes and breathing passages within 30 minutes of exposure. Lung and breathing passage damage may cause 'chemical pneumonia' following exposure if the exposure was prolonged. Systemic effects involving the central nervous system may occur within one hour of exposure and include headache, anxiety, dizziness, loss of coordination and slurred speech. People may lose consciousness or collapse suddenly, and die if exposure persists.
750	No odour is present due to olfactory paralysis. Central nervous system effects will be most obvious, and could include anxiety, confusion, headache, slurred speech, dizziness, stumbling, loss of coordination, and other signs of motor dysfunction. People may lose consciousness, collapse suddenly and possibly die, if exposure continues for more than a few minutes. Lung and breathing passage damage will likely cause 'chemical pneumonia' among survivors.
1000	Immediate "knock-down" and loss of consciousness. Death within moments to minutes. Immediate medical attention needed if victim is to survive.

Source: Alberta Health Services, Environmental Public Health

http://www.albertahealthservices.ca/assets/wf/eph/wf-eh-alberta-health-acute-exposure-health-effects-of-hydrogen-sulphide-and-sulphur-dioxide.pdf

SULPHUR DIOXIDE (SO$_2$)

Background

Sulphur Dioxide (SO$_2$) belongs to the family of sulphur oxide gases (SO$_2$). Sulphur is prevalent in raw materials including crude oil and coal, as well as in ore that contains common metals. Sulphur oxide gases form when fuels containing sulphur are burned and when gas is processed or metals are extracted from ore. Like other sulphur oxide gases, SO$_2$ dissolves in water or water vapour to form acid, and interacts with other gases and particles in the air to form sulphates and other products.

Sulphur dioxide is a colourless gas that is about 2.5 heavier than air. It has a sweet pungent odour, and can be detected by taste and smell at concentrations as low as 300 parts per billion (ppb). Acids that are formed when SO$_2$ (and nitrogen oxides) react with other substances in the air may be carried great distances before falling to earth as rain, fog, snow or dry particles. Acid rain damages forests and crops, changes the chemical make-up of soils, and increases the acidity of lakes and streams. Continued long-term exposure will affect the natural variety of plants and animals in an ecosystem. As well as contributing to smog, SO$_2$ emissions cause aesthetic damage and accelerate the decay of building materials and paints.

General guidelines dictate evacuation where SO$_2$ concentrations reach 5 ppm averaged over a 15 minute period. However, as a precaution, evacuation will be established under the criteria when the SO$_2$ level reaches 1 ppm for two to three hours, or averages 0.3 ppm over twenty-four hours.

Signs and Symptoms

Sulphur dioxide causes a wide variety of health and environmental impacts because of the way it reacts with other substances in the air. Acute and chronic exposure to SO$_2$ affects the respiratory system. Acute exposure effects, with increasing exposure, include irritation of the eye, nose and throat, choking, coughing, bronchitis and pneumonia. Exposure to low concentrations can aggravate chronic pulmonary diseases, such as asthma and emphysema. Co-exposure to cold or dry air may further exacerbate the respiratory effects of SO$_2$ on sensitive asthmatics. Particularly sensitive groups include children, the elderly and those with existing heart or lung disease.

Acute Health Effects of Sulphur Dioxide

Concentration of SO_2 (ppm)	Acute Health Effects
0.1	Transient bronchoconstriction[1] in sensitive exercising asthmatic individuals that ceases when exposure ceases.[2]
0.3 - 1	Possible detection by taste or smell.
0.75	Transient lung function changes in healthy, moderately exercising, non-asthmatic individuals.
1 - 2	Lung function changes in healthy non-asthmatics. Symptoms in asthmatics would likely increase in severity. There may be a shift to clinical symptoms from changes detectable only via spirometry.
3	Easily detected odour.
6 - 12	May cause nasal and throat irritation.
10	Upper respiratory irritation, some nosebleeds.
20	Definitely irritating to the eyes; chronic respiratory symptoms develop; respiratory protection is necessary.
50-100	Maximum tolerable exposures for 30-60 minutes.
Greater than 100	Immediate danger to life (NIOSH recommendation).

[1] At low levels, bronchoconstriction was generally observed as changes in airway conductance detectable by spirometry rather than as clinical symptoms.

[2] It should be noted that clinical studies on humans are generally designed to elicit a response and consequently subject study volunteers to challenging conditions such as exercising, mouth breathing, cold, dry air, etc. Real-life responses in asthmatics should be viewed as being individual-specific dependent on severity of asthma, whether the individuals are medicated or not, how cold and/or dry the air is, mouth breathing (vs. nose breathing, which can act as an effective scrubber mechanism) and exercise.

Source: Alberta Health Services, Environmental Public Health

http://www.albertahealthservices.ca/assets/wf/eph/wf-eh-alberta-health-acute-exposure-health-effects-of-hydrogen-sulphide-and-sulphur-dioxide.pdf

POST INCIDENT

Ensure all statements, event logs, forms and documentation on the incident remain securely stored following the incident. Records must be held for a minimum of 5 years as it may be requested by the regulatory agency at any point during that time.

STAND DOWN

After consultation with the appropriate Regulatory Agency, Provincial Emergency Management or local County / Municipality, the Incident Commander will:

1. Give the "all clear" signal. Prior to the "all-clear" signal, the Incident Commander will confirm that all evacuated areas are safe to re-enter. This may involve such activities as:

    o   Ensuring all equipment and locations are free of any pockets of fire, smoke and / or toxic gases.

    o   Ensuring all equipment and debris are removed from offices and / or public areas.

    o   Cordoning off the incident area to isolate any remaining hazards.

    o   Checking low-lying areas and basements for contamination, if a toxic leak has occurred.

    After the "all-clear" message has been given, the Incident Commander will be responsible for:

    o   Ensuring all evacuees are promptly notified once the call down is given.

    o   Coordinating the return of any evacuees to the area. Ensure the public and employees receive any assistance they may require.

    o   Maintaining security in any evacuated areas until the evacuees have returned and the businesses in the area have again become occupied.

2. Coordinate the deactivation of all emergency response operations, personnel, equipment and incident areas.

3. Ensure all previous contacts, including other companies; government agencies, etc. are notified of the emergency status call down.

4. Advise all response team members to document their call down notification calls.

5. Work with the Information Officer to prepare and release an "all clear" statement to the media in conjunction with the Regulatory Agency.

6. Organize debriefing meetings for advisory personnel involved. In the case of incidents that have involved a death or serious injury, consult with Occupational Health and Wellness personnel about arranging critical incident counselling.

7. If applicable, ensure communication of status to joint venture partners has been completed.

Please refer to ICS 221 - Demobilization Checkout Form in Section 6: Forms.

PUBLIC CARE AND ASSISTANCE

The decision to recall evacuees will be coordinated by the regulatory agency in consultation with other applicable government agencies and the licensee. Ensure the following tasks are completed as required:

1. Ensure all evacuees are promptly notified once the call down is given.

2. Coordinate the return of any evacuees to the area. Ensure the public and employees receive any assistance they may require.

3. Maintain security in any evacuated areas until the evacuees have returned and the businesses in the area have again become occupied.

4. Ensure homes and businesses are ventilated and checked for gas pockets before allowing the occupants to enter. Rovers must check each room, office and public area.

5. Ensure members of the Response Teams and other key participants in the emergency are debriefed as soon as possible.

6. Designate senior company representatives to act as the IST member to liaise with the public and other companies.

7. Ensure the affected employees and public are provided with post-incident company contact names and telephone numbers. If the emergency has impacted a large number of the public or has caused significant damage to private property or the environment, a temporary Public Relations Office should be established in the affected area.

8. The Information Officer shall schedule a follow-up meeting with the public to clearly explain the cause of the incident and to address their concerns.

9. Organize critical incident counselling as required.

10. Ensure public expense / damage claims have been collected and are processed in a timely manner.

CLEAN UP AND REPAIR
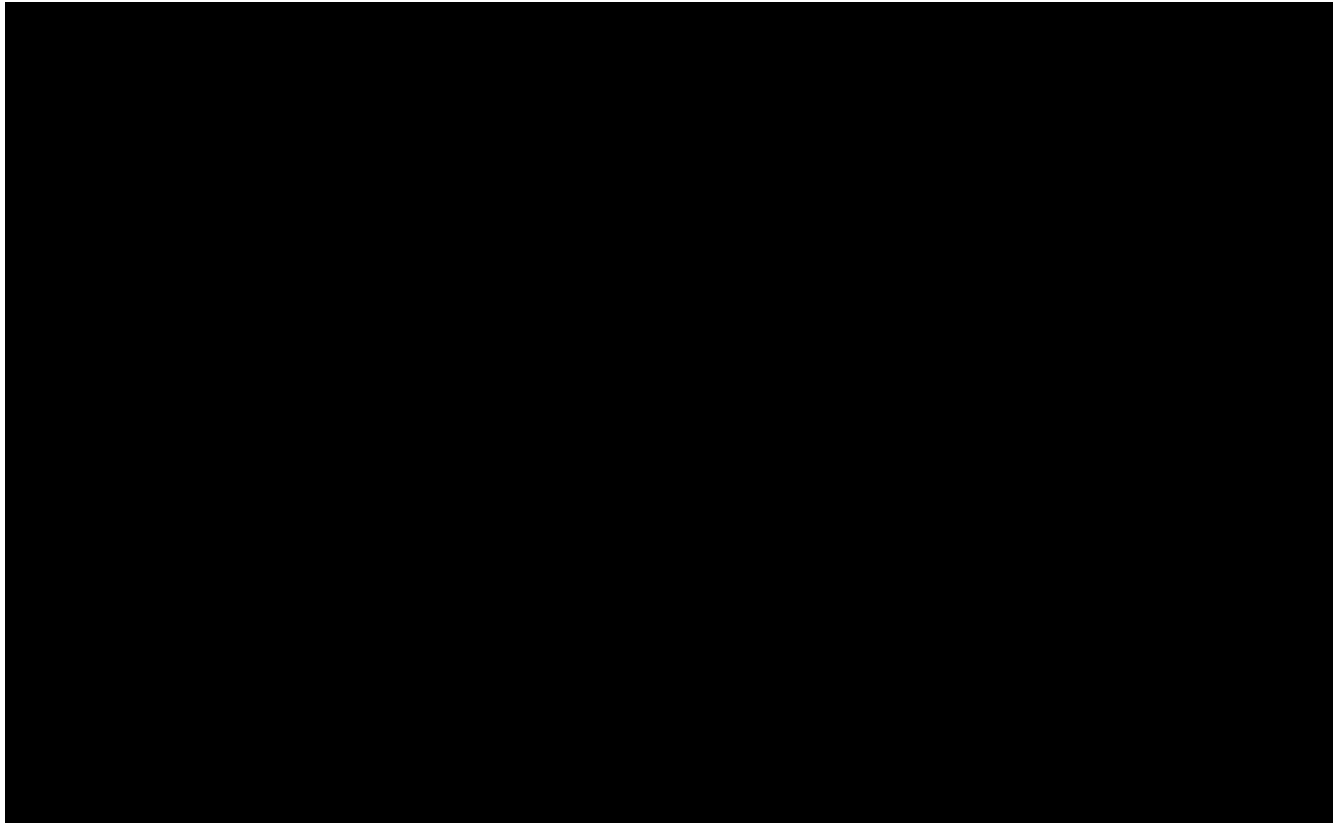
THIRD PARTY INVESTIGATIONS
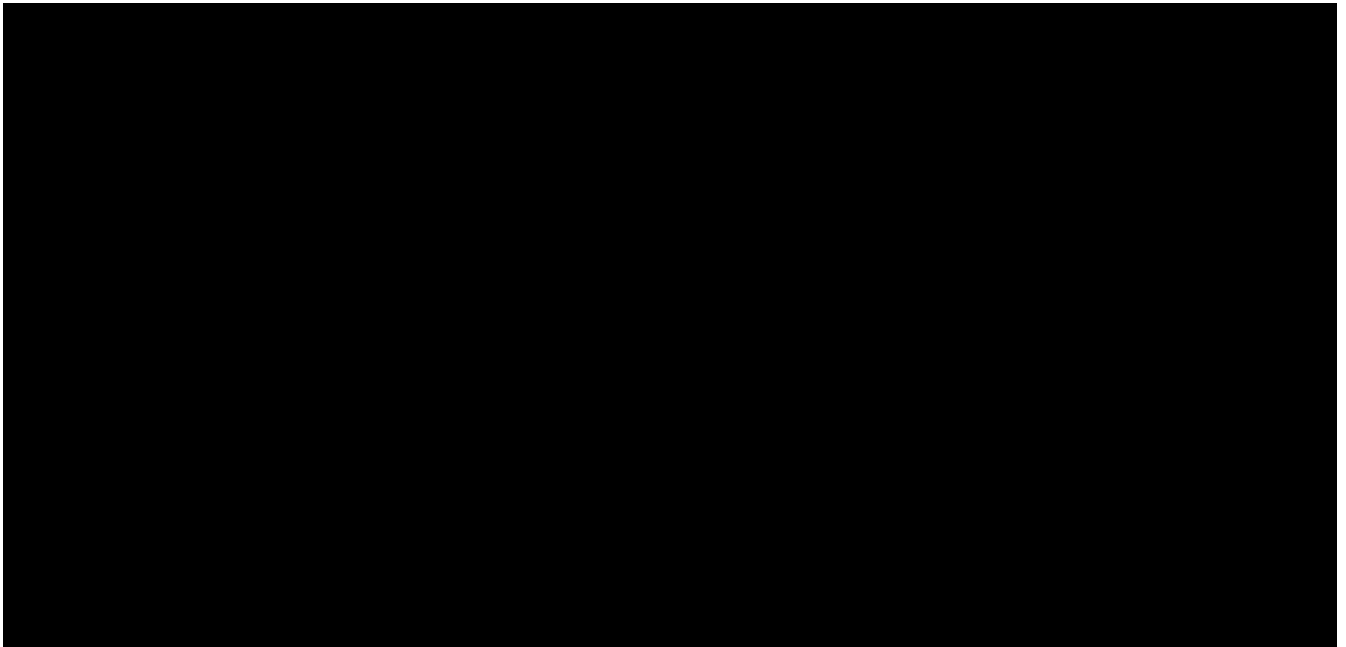
DEBRIEFING AND AFTER ACTION REVIEW

The effectiveness of the Emergency Management Program shall be reviewed after the end of the emergency in a debriefing meeting. In some situations, a formal after action review may be held. The objective of the debriefing and after action review should be to improve emergency preparedness, response, and recovery by identifying areas of success and opportunities for improvement.

The debriefing meeting should include all groups that responded to the emergency. Separate debriefings may be held with different groups that participated in the emergency (e.g. emergency services organizations, the media, etc.) Groups should come prepared with complete details of their activities during the emergency and, where possible, provide supporting documentation. Common elements of an effective debriefing include:

a) A facilitator (who was not involved in the incident response).

b) A scribe to record the proceedings.

c) A review of the sequence of events, including timings and actions taken.

d) Identification of those portions of the Emergency Management Program that were effective and those that require improvement (e.g. training and exercises, plans, policies, processes).

e) Assignment of action items to responsible parties.

Action items identified during the debriefing should be documented and assigned with completion timelines and key lessons learned from emergency outcome should be shared with the appropriate parties. Program documentation should be revised as necessary.

CRITICAL INCIDENT STRESS MANAGEMENT (CISM)

Responders are often under a great deal of stress. They must act quickly, often in the face of pain and fear, to assess the situation, determine priorities and begin rescuing others who are in danger. They may have experienced a serious injury themselves or witnessed the death of co-workers or the public.

If necessary, please contact the Human Resources department or Family Assistance Program for further assistance and information.

POST-INCIDENT INVESTIGATION

Once the emergency status has been removed, a senior company representative will appoint a subcommittee to investigate the event. This subcommittee will consist of appropriate management and technical specialists as required.

The objective of the investigation will be to analyze and evaluate the event in order to establish a cause, to provide advice on how to prevent a reoccurrence of the event, and to make recommendations on procedures that will improve the company's emergency response efforts in the future.

The post-incident investigation should include:

- A review of the events leading up to the incident.

- An analysis of the on-site remedial procedures, including an evaluation of the safety standards that were applied.

- An appraisal of the company's shelter-in-place / evacuation response for the affected public.

- An evaluation of the effectiveness of the notification and communication systems between the incident site and the head office, as well as within the Company.

- An appraisal of the effectiveness of any media or public relations efforts.

- An assessment of any potential legal or environmental issues that may be raised as a result of the event or as a result of the company's response efforts.

- A summary of current and future costs.

- Completed appropriate event report forms and applicable attachments.

- An assessment of the strengths and weaknesses of the company's response.

This report will be directed to the attention of the senior company representative facilitating the investigation. It will be his / her responsibility to ensure all recommendations for improvements to the Core, Site Specific ERP(s), and/or Business Continuity Plan(s) are incorporated where applicable and promptly communicated to the appropriate company personnel.

Within 30 days of the end of an incident, a Licensee must file with the Provincial Agency, Canada Energy Regulator (CER, formerly known as National Energy Board), and / or the Transportation Safety Board (TSB), an Operator Incident Summary Report structured as outlined by the Provincial / Federal Agency. After reviewing the Operator Incident Summary Report, the Provincial and / or Federal agency may require that the licensee attend a meeting to further discuss the incident.

All documentation recorded during and following an emergency must be retained for up to five years in the event the Regulatory Agency requests it.

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SECTION 5: EXTERNAL AGENCIES

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Alberta

Notification Requirements for Key Government Agencies

Column groups: Initial Responders | Lead Agencies | Supporting Agencies & Other Government Contacts

Incident Type	Ambulance Services	Local Fire Department	RCMP¹	AER²	Local Authorities³	AHS	AEMA⁴	CER⁵	OHS⁶	ABSA	AB Safety Svcs – Electrical Branch	Alberta EDGE	Workers' Compensation Board	ECCC	CANUTEC	Emergency Response Assistance Canada	DFO	IOGC
Sour Gas / HVP Release (Uncontrolled)		a	✓	✓	✓	✓	✓*	c				d	e	f				j
Chlorine Gas Release		a	✓	✓	✓	✓	✓		c				d	e	f	g		j
Sweet Combustible Gas Release		a	✓	✓	✓	✓	✓*	c				d	e					j
Spill / Transportation Incident (Unrefined Products)**		a	✓	✓	✓	✓	✓	✓*	c			✓	e	f	g	h	i	j
Spill / Rail or Trucking Incident (Refined Products)**		a	✓	✓	✓	b	✓	✓*	c			✓	e	f	g	h	i	j
Serious Injury or Death (Including Vehicle Accidents)	✓	✓	✓	✓	✓			✓*	✓									
Missing Person		✓						✓*										
Fire / Explosion / B.L.E.V.E.	✓	✓	✓	✓	✓			✓*	c			d				h		j
Pressure Vessel or Piping Incident		✓	✓	✓	✓			✓*	c	✓			e	f				
Electrical Incident		✓	✓						c		✓		e					
Motor Vehicle Accident (No Injuries)		✓																
Security Incident		✓	✓					✓*	c									
On-Site Incident Involving E2 Regulated Substance		a	✓			b			c					f			i	j

16-Jan-23

✓ Compulsory contact

* CER is a compulsory contact only for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

** Refer to the Alberta Petroleum Industry Release Reporting Requirements chart included in the ERP.

a) Contact the local fire department if there is potential for secondary fires resulting from the ignition of spilled liquids or escaping gases.

b) Contact Alberta Health Services (AHS) if the incident has the potential to impact public health (e.g., contaminated drinking water).

c) Contact Occupational Health & Safety and report when: an injury or accident results in death; an injury results in a worker being admitted to a hospital; a potentially serious incident (PSI) where a reasonable and informed person would determine that under slightly different circumstances, there would be a high likelihood for a serious injury to a person; there is an unplanned or uncontrolled explosion, fire or flood that causes a serious injury or that has the potential to cause a serious injury; there is a collapse or upset of a crane derrick or hoist or; there is a collapse or failure of any component of a building or structure necessary for its structural integrity.

d) Alberta EDGE (Environmental and Dangerous Goods Emergencies) is the first call for all transportation related spills/incidents. If spill is contained on-site, Alberta EDGE will contact the AER. If the spill moves off-site or into a waterbody, Alberta EDGE will contact Alberta Environment and Protected Areas (EPA) and/or Environment & Climate Change Canada (ECCC). Contact Alberta EDGE or the RCMP if an oil & gas emergency affects a highway designated by 1, 2, or 3 digits (e.g., Hwy 2, Hwy 47, Hwy 837). Alberta EDGE and RCMP have the authority to shut down highways.

e) Contact the Workers' Compensation Board within 72 hours of being notified of an injury/illness that results in or will likely result in: Lost time or the need to temporarily or permanently modify work beyond the date of accident, death or permanent disability, a disabling or potentially disabling condition caused by occupational exposure or activity, the need for medical treatment beyond first aid, or medical aid expenses.

f) ECCC will be notified by AER as required for incidents involving regulated substances at E2 registered facilities, incidents involving PCBs or any spills on first nations lands, in National Parks, into river or lake systems containing fish, or onto railway right-of-way.

g) Contact the Canadian Transport Emergency Centre (CANUTEC) when a highway is shut down, there is an injury or fatality, there is lost, stolen or unlawfully interfered with dangerous goods (except Class 9), the incident involves infectious substances, there is an accidental release from a cylinder that has suffered a catastrophic failure, where the shipping documents display CANUTEC's telephone number, where a railway vehicle, ship, aircraft aerodrome or an air cargo facility is involved, when a facility is closed, evacuation/shelter-in-place procedures take place as a result of the transportation of dangerous goods, containment has been damaged and integrity compromised, or the centre/stub sill of a tank car is broken or there is a crack in the metal ≥ 15cm(6"). CANUTEC can also provide guidance on handling procedures for toxic material releases.

h) Emergency Response Assistance Canada will only respond to incidents that involve the following UN numbers: 1075 (Propane, Butane, etc.) and 1010 (Butadiene); with a tank storage capacity of 450 litres or greater. Advisory assistance will be provided to incidents involving tank storage capacities less than 450 litres.

i) Contact the Department of Fisheries and Oceans Canada to report an oil spill that occurs in or around fresh and marine waters.

j) Indian Oil & Gas (IOGC), the First Nation and the provincial authority must be notified immediately in the event of any health or environment-threatening emergency or off-lease spills on First Nation reserve lands. On-lease spills greater than 1m³ must be reported to IOGC immediately.

1. In the event of a fatality, request that the RCMP contact the Medical Examiner. The RCMP must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infections substances.

2. Alberta Energy Regulator is designated as the lead agency (single window approach) to implement the Gov't of Alberta Emergency Response Support Plan for a Petroleum Industry Incident.

3. Local Authorities include: cities, towns, villages, counties, municipal districts, improvement districts, special areas, Métis settlements, and first nations reserves.

4. Request that Alberta Emergency Management Agency identify the affected local authorities and implement Emergency Services. The Emergency Management Field Officer may provide assistance in contacting some or all of the local authorities.

5. Contact the Canada Energy Regulator (via the Transportation Safety Board of Canada) for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

6. Occupational Health and Safety - see c) for further details on this agency's role.

Notification Flow

Licensee

As required for initial response →
- 911
- EMS
- RCMP / Police
- Fire Department
- Local Authority

Licensee → **AER Duty Officer**

As required For Initial response →
- Local AER Field Centre
- Emergency Response Services

AER Duty Officer — As required → **Provincial Operations Centre (POC)**

The AER Duty Officer will determine which external departments/agencies require notification of the emergency. The AER Duty Officer initiates the initial notification process as per this table.

At any Emergency Level

External Notification Including:
- INAC
- AEMA
- AH
- AHS
- EPA
- AB EDGE
- Energy Security Unit
- FNIHB
- Etc.

Initial SitRep
- AAI CMO
- AFPT CMO
- EPA CMO
- AH CMO
- ATEC CMO
- AB Justice CMO
- CPE
- Others/Specific Lists (determined by AEMA & lead agency)

Alberta Notification Matrix

H2Safety

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British Columbia

Notification Requirements for Key Government Agencies

Incident Type	Ambulance Services	Local Fire Department	RCMP [1]	EMCR [2]	BCER [3]	Local Authorities [4]	Northern Health Authority	CER [5]	WorkSafe BC [6]	MOE [7]	Technical Safety BC [8]	ECCC	MOTI	PSPC	CANUTEC	ERAC	DFO	IOGC
Sour Gas / HVP Release (Uncontrolled)		a	✓	✓	✓	✓		✓*	✓		✓		c	d				g
Chlorine Gas Release		a	✓	✓		✓	b	✓	✓		✓		c	d	e			g
Sweet Combustible Gas Release		a	✓	✓	✓	✓		✓*	✓		✓		c	d				g
Spills / Transportation Incidents (Unrefined Products)**		a	✓	✓	✓	✓		✓*	✓	✓	✓		c	d	e		✓	g
Spills / Rail or Trucking Incidents (Refined Products)**		a	✓	✓	✓	✓	b	✓*	✓	✓	✓		c	d	e	f		g
Serious Injury or Death as a Result of Oil & Gas Activity	✓		✓	✓	✓			✓*	✓									
Missing Person			✓					✓*										
Fire / Explosion / B.L.E.V.E.	✓	✓	✓	✓	✓	✓		✓*	✓		✓		c	d				g
Pressure Vessel or Piping Incident		✓			✓			✓*	✓		✓							
Electrical Incident		✓									✓							
Motor Vehicle Accident (Serious Injury or Death)	✓	✓						✓						d				
Motor Vehicle Accident (No injuries)		✓																
Security Incidents		✓			✓			✓*	✓									
On - Site Incident Involving E2 Regulated Substance		a	✓		✓		b	✓*	✓	✓							✓	g

26-May-23

Phone numbers for the agencies listed above are located in the Area Specific Information

✓ Compulsory contact

* CER is a compulsory contact only for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

** Refer to the British Columbia Petroleum Release Reporting Requirements chart included in the ERP.

_ Technical Safety BC only requires reporting of rail related accidents, incidents and spills. No other transportation related emergencies need to be reported.

EMCR to notify the BCER for all incident types including fire/explosion incidents, pressure vessel incidents, spills and releases, or electrical incidents occurring at facilities approved by the BCER.

EMCR to notify the Ministry of Environment and Climate Change Strategy for any incident which affects the water, air, or land environment, or any white or green space in the province.

EMCR to notify Environment & Climate Change Canada (ECCC) of all oil and gas incidents in time, but immediately as required for incidents involving regulated substances at E2 registered facilities, incidents involving PCBs or any spills on First Nations lands, in National Parks, into river or lake systems containing fish, or onto railway right-of-way.

EMCR to notify Ministry of Forests, Northern Health Authority, affected municipalities and all other level of government and industry; depending on the ECC code level in their SOPs.

a) Contact the local fire department if there is potential for secondary fires resulting from the ignition of spilled liquids or escaping gases.

b) Contact the Northern Health Authority if the incident affects public health, e.g., contaminated drinking water.

c) Contact the Ministry of Transportation and Infrastructure (MOTI) and the RCMP if the emergency intersects with a 1, 2 or 3 digit Provincial or Secondary highway (e.g., Hwy 2, Hwy 47, Hwy 837). MOTI and RCMP have the authority to shut down highways.

d) Contact Public Services and Procurement Canada (PSPC) and the RCMP if the emergency intersects with the Alaska Highway (97) north of mile 83.5 all the way to the Yukon border. PSPC and RCMP have the authority to shut down this portion of the Alaska highway.

e) Contact the Canadian Transport Emergency Centre (CANUTEC) when a highway is shut down, there is an injury or fatality, there is lost, stolen or unlawfully interfered with dangerous goods (except Class 9), the incident involves infectious substances, there is an accidental release from a cylinder that has suffered a catastrophic failure, where the shipping documents display CANUTEC's telephone number, where a railway vehicle, ship, aircraft aerodrome or an air cargo facility is involved, when a facility is closed, evacuation/shelter-in-place procedures take place as a result of the transportation of dangerous goods, containment has been damaged and integrity compromised, or the centre/stub sill of a tank car is broken or there is a crack in the metal ≥ 15cm(6"). CANUTEC can also provide guidance on handling procedures for toxic material releases.

f) Emergency Response Assistance Canada will only respond to transportation incidents and only incidents that involve the following UN numbers: 1075 (Propane, Butane, etc.) and 1010 (Butadiene); and those products have tank storage capacity of 450 litres or greater.

g) Indian Oil & Gas (IOGC), the First Nation and the provincial authority must be notified immediately in the event of any health or environment-threatening emergency or off-lease spills on First Nation reserve lands. On-lease spills greater than 1m3 must be reported to IOGC immediately.

1 In the event of a fatality, request that the RCMP contact the Medical Examiner. The RCMP must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infections substances.

2 Notify Ministry of Emergency Management and Climate Readiness (EMCR) for all spill and non-spill incidents to receive a Dangerous Goods Incident Report (DGIR) number. EMCR will notify the BCER, Ministry of Environment & Climate Change Strategy, and will provide a representative to coordinate the provincial response.

3 Contact the BCER for any spills or release of hazardous substances that are not provincially regulated (such as radioactive materials), pipeline incidents such as spills during construction phase, exposed pipe caused by flooding, pipeline over pressure, failure (without release) of any pressure control or ESD device during operations, drilling kicks when any of the following occur: pit gain of 3m^3 or greater, casing pressure 85% of MA, 50% out of hole when kicked, well taking fluid (LC), associated spill or general situation deterioration such as leaks, equipment failure or unable to circulate etc., major damage to oil and gas roads or road structures and security related issues which are relatively minor; such information may be required for tracking and monitoring purposes only. The BCER must also be notified of needed emergency oil and gas road closures. The BCER may request a NOTAM order upon request from operator.

4 Local authorities include regional district disaster services, national park authorities and the local police.

5 Contact the Canada Energy Regulator (via the Transportation Safety Board of Canada) for all emergencies and near misses involving CER regulated sites and inter-provincial pipelines. The CER regulates all inter-provincial pipelines and other facilities and sites located in Frontier lands (Northern Canada).

6 Ensure any workplace conditions that present an immediate hazard to other workers are addressed, ensure first aid and medical treatment for the worker, and then notify WorkSafeBC of the incident. The requirement to immediately report a serious injury or fatality is separate from the requirement to report injuries for claims purposes. Failure to immediately notify WorkSafeBC will be considered a breach of section 172 of the Workers Compensation Act. The employer must immediately report the following incidents, injury or not: Any incident that kills, causes risk of death, or seriously diving incident or decompression sickness, a major leak or release of a dangerous substance, a major structural failure or collapse of a structure, equipment, construction support system or excavation, or any serious mishap. Must also report incidents that requires the employee to seek medical attention or cause time-loss from work.

7 Ministry of Environment and Climate Change Strategy was formerly known as Ministry of Water, Land and Air Protection.

8 Technical Safety BC is to be notified immediately in cases of Boilers, Pressure Vessels, Piping and Fittings, Electrical & Gas incidents resulting in a moderate, major and fatal injury or moderate, major or severe property damage. All other incidents must be reported within 24 hours (or as soon as practical). Rail accidents where a person sustains a serious injury or is killed as a result of being on board or getting on or off the rolling stock, or coming into contact with any part of the rolling stock or its contents, or the rolling stock is involved in a grade crossing collision or a derailment, sustains damage that affects its safe operations, or causes or sustains a fire or explosion, or causes damage to the railway, that poses a threat to the safety of any person, property or the environment, or any dangerous good is released.

BCER Incident Reporting Process

Determine Incident Level

Minor Incident — Score of 1 or 2
- Spill Incident: Call EMCR for DGIR, report online ← Immediate call 24 Hours to enter
- No product spilled: Report online ← Enter within 24 Hours

Emergency Incident — Score of 3 or greater, Call EMCR
- Spill Incident: Get DGIR from EMCR ← Immediate call to EMCR
- No product spilled ← Immediate call to EMCR

Level 1, 2 or 3 emergency

H2Safety
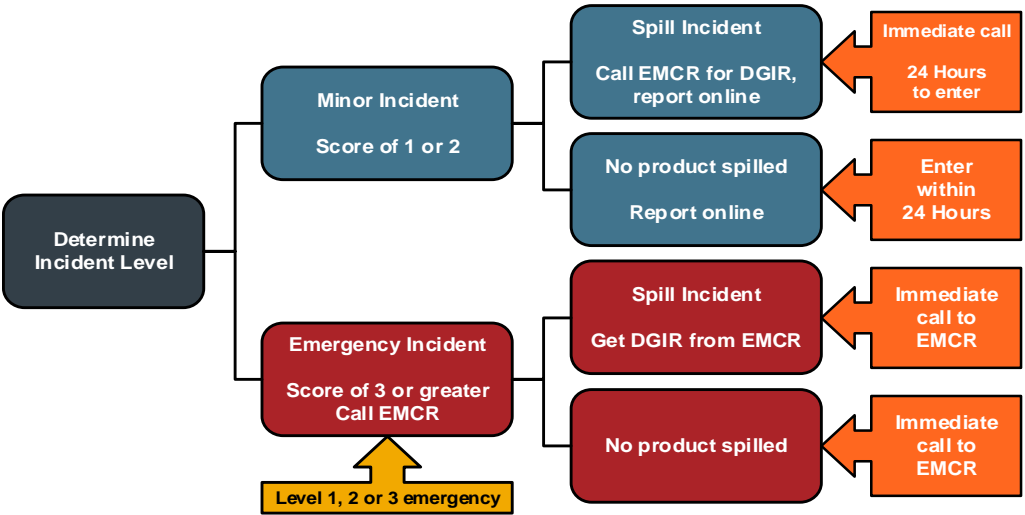
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Saskatchewan

Notification Requirements for Key Government Agencies

Agency or Resource — grouped as: **Initial Responders**, **Lead Agencies**, **Supporting Agencies & Other Government Contacts**

Column legend (left → right):
1. Ambulance Services
2. Local Fire Department
3. RCMP - Royal Canadian Mounted Police [1]
4. ER - Ministry of Energy and Resources [2]
5. Local Authorities [2]
6. SPSA - Saskatchewan Public Safety Agency [3]
7. SHA - Saskatchewan Health Authority
8. Sask Ministry of Environment [4]
9. CER - Canada Energy Regulator [5]
10. OH&S - Ministry of Labour Relations & Workplace Safety [6]
11. WCB - Workers Compensation Board [6]
12. Sask Ministry of Health - Health Emergency Management
13. Technical Safety Authority of Saskatchewan
14. SaskPower - Electrical Safety
15. MOH - Ministry of Highways
16. MOH - Transportation Programs & Services
17. ECCC - Environment & Climate Change Canada
18. CANUTEC
19. ERAC - Emergency Response Assistance Canada
20. DFO - Department of Fisheries and Oceans Canada
21. WSA - Sask Water Security Agency
22. IOGC - Indian Oil & Gas Canada

Incident Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Sour Gas / HVP Release (Uncontrolled)		a	✓	✓	✓	✓		d	✓*	e	✓				f		h	i			l	m
Chlorine Gas Release		a	✓	✓	✓	✓	c	d	✓*	e	✓				f		h	i			l	m
Sweet Combustible Gas Release		a	✓	✓	✓	✓		d	✓*	e	✓				f		h				l	m
Spills / Transportation Incidents (Unrefined Products)**		a	✓	✓	✓	✓	✓	d	✓*	e					f	g	h	i	j	k	l	m
Spills / Rail or Trucking Incidents (Refined Products)**		a	✓	✓	✓	✓	c	d		e					f	g	h	i	j	k	l	m
Serious Injury or Death (including Vehicular Accidents)	✓		✓				✓			✓	✓				f	g						
Missing Person			✓						✓*													
Fire / Explosion / B.L.E.V.E.	✓		✓	b	✓	✓		d		e		✓	✓		f	g	h		j			m
Pressure Vessel or Piping Incident		✓		b			c		✓*	e		✓	✓		f							
Electrical Incident		✓		b						e				✓								
Motor Vehicle Accident (No injuries)		✓													f							
Security Incidents		✓		b	✓				✓*	✓												
On - Site Incident Involving E2 Regulated Substance		a	✓	✓			c	✓								g	h			k	l	m

✓ Compulsory contact

* CER is a compulsory contact only for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

** Refer to the Canadian Petroleum Industry Release Reporting Requirements chart included in the ERP.

2022-06-01

Incident Reporting Flowchart

- Operating Event →
- **Is it a reportable incident?**
  - No → No reporting required
  - Yes →
    - Activate ERP where required
    - **Is immediate telephone notification required?**
      - Yes → Call emergency support line at 1-844-764-3637
      - No → Submit initial incident report in IRIS (within 5 days)
- Submit initial incident report in IRIS (within 5 days) → Submit detailed incident report in IRIS (within 90 days) →
- **Is remediation or reclamation required?**
  - No → Reporting complete
  - Yes → Submit Incident Reclamation Report in IRIS (multiple if required) → Reporting complete

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a) Contact the local Fire Department if there is potential for secondary fires resulting from the ignition of spilled liquids or escaping gases.

b) Contact the Ministry of Energy and Resources (ER) to report any incident that requires the operator or licensee to initiate their emergency response plan, for any fire and any blow-out or kick. For all other incidents required to notify ER please refer to the Petroleum Industry Release Reporting Requirements chart included in the ERP.

c) Contact the Saskatchewan Health Authority if the incident has the potential to impact public health (e.g., contaminated drinking water).

d) Contact Sask Ministry of Environment if the incident impacts sensitive or natural areas, crown lands, farm lands, forestry lands, wildfire or wet areas / water bodies.

e) Contact the Ministry of Labour Relations & Workplace Safety - Occupational Health & Safety any "critical incident" - a serious adverse health event including, but not limited to, the actual or potential loss of life, limb or function related to a health service provided by, or a program operated by, Saskatchewan Health Authority (SHA) or health care organization.

f) Contact the Ministry of Highways and the RCMP if the emergency affects a highway designated by 1, 2, or 3 digits (e.g., Hwy 2, Hwy 47, Hwy 837). The Ministry of Highways and RCMP have the authority to shut down highways.

g) Contact Transportation Programs & Services when a person is killed or sustains a serious injury as a result of getting on or off or being on board the rolling stock or coming into direct contact with any part of the rolling stock or its contents. The rolling stock or its contents are involved in a collision or derailment, sustain damage that affects the safe operation of the rolling stock, cause or sustain a fire or explosion, or cause damage to the railway that poses a threat to the safe passage of rolling stock or to the safety of any person, property or the environment. There is an accidental release on board or from a rolling stock consisting of a quantity of dangerous goods or an emission of radiation that is greater than the quantity or emission level specified in Part 8 of the Transportation of Dangerous Goods Regulations (Canada). An incident where a risk of collision occurs between rolling stock, an unprotected main track or subdivision track switch is left in an abnormal position, a railway signal displays a less restrictive indication than that required for the intended movement of rolling stock, rolling stock occupies a main track or subdivision track, or track work takes place, in contravention of the rules or any regulation or order made under The Railway Act, rolling stock passes a signal indicating stop in contravention of the rules or any regulation or order made under The Railway Act, there is an unplanned and uncontrolled movement of rolling stock, or a crew member whose duties are directly related to the safe operation of the rolling stock is unable to perform their duties as a result of physical incapacitation which poses a threat to the safety of person, property or the environment.

h) Environment & Climate Change Canada (ECCC) will be notified by Sask Ministry of Environment as required for incidents involving regulated substances at E2 registered facilities, incidents involving PCBs or any spills on first nations lands, in National Parks, into river or lake systems containing fish, or onto railway right-of-way.

i) Contact the Canadian Transport Emergency Centre (CANUTEC) when a highway is shut down, there is an injury or fatality, there is lost, stolen or unlawfully interfered with dangerous goods (except Class 9), the incident involves infectious substances, there is an accidental release from a cylinder that has suffered a catastrophic failure, where the shipping documents display CANUTEC's telephone number, where a railway vehicle, ship, aircraft aerodrome or an air cargo facility is involved, when a facility is closed, evacuation/shelter-in-place procedures take place as a result of the transportation of dangerous goods, containment has been damaged and integrity compromised, or the centre/stub sill of a tank car is broken or there is a crack in the metal ≥ 15cm(6"). CANUTEC can also provide guidance on handling procedures for toxic material releases.

j) Emergency Response Assistance Canada will only respond to incidents that involve the following UN numbers: 1075 (Propane, Butane, etc.) and 1010 (Butadiene); with a tank storage capacity of 450 litres or greater. Advisory assistance will be provided involving tank storage capacities less than 450 litres.

k) Contact the Department of Fisheries and Oceans Canada to report an oil spill that occurs in or around fresh and marine waters.

l) Contact the Saskatchewan Water Security Agency for any incident that affect or may affect waterbodies, raw water supplies or potable water sources.

m) Indian Oil & Gas (IOGC), the First Nation and the provincial authority must be notified immediately in the event of any health or environment-threatening emergency or off-lease spills on First Nation reserve lands. On-lease spills greater than 1m3 must be reported to IOGC immediately.

1 In the event of a fatality, request that the RCMP contact the Medical Examiner. The RCMP must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infections

2 Local Authorities include: cities, towns, villages or rural municipalities, Métis settlements or first nations reserves.

3 Contact the Saskatchewan Public Safety Agency (SPSA) only for large scale incidents.

4 Saskatchewan Ministry of Environment, Environmental Protection, and Spill Reporting.

5 Contact the Canada Energy Regulator (via the Transportation Safety Board of Canada) for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

6 Contact the WCB within 5 days after the date on which an employer has become aware of an injury that prevents a worker from earning full wages or that necessitates medical aid, or situations where: the accident causes, or may cause the death of a worker, will require hospitalization for 72 hours or more, structural failure or collapse of scaffold, accidental contact with an energized electrical conductor or an uncontrolled spill of a toxic substance.

Saskatchewan Notification Matrix

H2Safety
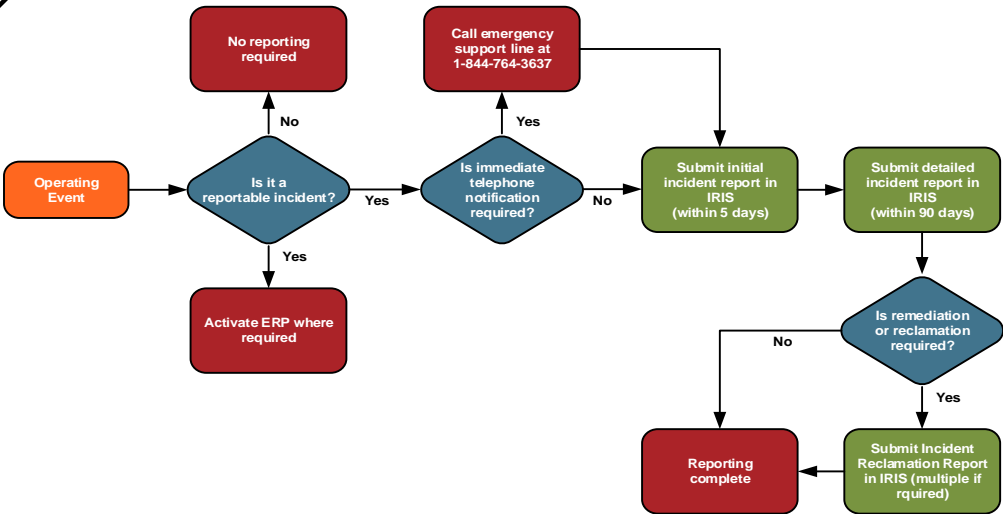
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Manitoba

Notification Requirements for Key Government Agencies

Manitoba Notification Matrix

Column groups: **Initial Responders** (Ambulance Services, Local Fire Department, RCMP) · **Lead Agencies** (EDIT, Local Authorities, RHA, Manitoba EMO, CER) · **Supporting Agencies & Other Government Contacts** (remaining columns)

Incident Type	Ambulance Services	Local Fire Department	RCMP - Royal Canadian Mounted Police [1]	Economic Development, Investment & Trade (EDIT) - Resource Development (Petroleum)	Local Authorities [2]	RHA - Regional Health Authority	Manitoba EMO - Emergency Management Organization [3]	CER - Canada Energy Regulator [4]	Manitoba Workplace Safety & Health	Inspection and Technical Services Manitoba	Manitoba Transportation and Infrastructure	Workers Compensation Board	Manitoba Environment, Climate and Parks [5]	ECCC - Environment & Climate Change Canada	CANUTEC	Emergency Response Assistance Canada	DFO - Department of Fisheries and Oceans	IOGC - Indian Oil & Gas Canada
Sour Gas / HVP Release (Uncontrolled)		a	✓	b	✓	c	✓	✓*			e	f	g	h	i			l
Chlorine Gas Release		a	✓	b	✓	c	✓		✓		e	f	g	h	i			l
Sweet Combustible Gas Release		a	✓	b	✓	c	✓	✓*			e	f	g					l
Spills / Transportation Incidents (Unrefined Products)**		a	✓	b	✓	c	✓	✓*	d		e	f	g	h	i		k	l
Spills / Rail or Trucking Incidents (Refined Products)**		a	✓		✓	c	✓	✓*	d		e	f	g	h	i	j	k	l
Serious Injury or Death (including Vehicle Accidents)	✓	✓	✓					✓*	✓		e							
Missing Person			✓					✓*										
Fire / Explosion / B.L.E.V.E	✓	✓	✓	b	✓	c	✓	✓*	d	✓	e	f	g	h		j		l
Pressure Vessel or Piping Incident		✓		b		c		✓*	d	✓	e	f						
Electrical Incident		✓		b					d			f						
Motor Vehicle Accident (No injuries)			✓								e							
Security Incidents			✓					✓*										
On-Site Incident Involving E2 Regulated Substance		a	✓			c							✓	h			k	l

13-Jul-23

✓ Compulsory contact

* CER is a compulsory contact only for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

** Refer to the Canadian Petroleum Industry Release Reporting Requirements chart included in the ERP.

EMO Upon receipt of emergency notification, the EMO will then assess and notify the appropriate provincial and federal departments, local authorities & municipalities, Crown corporations, other non government agencies such as critical suppliers, service providers and outside contractors.

a) Contact the local Fire Department if there is potential for secondary fires resulting from the ignition of spilled liquids or escaping gases.

b) Contact Economic Development, Investment & Trade (EDIT) - Resource Development (Petroleum) for incidents occurring at facilities approved by the department, spills greater than $0.5 m^3$, any spill on land outside of the company's lease, a fire, or a blow-out.

c) Contact the Regional Health Authority (RHA) if the incident has the potential to impact public health (e.g., contaminated drinking water).

d) Contact the Manitoba Workplace Safety and Health if there is a serious injury requiring medical attention or death as a result of an incident (worker-related issues).

e) Contact Manitoba Transportation and Infrastructure or the RCMP if the emergency affects a highway designated by 1, 2, or 3 digits (e.g., Hwy 2, Hwy 47, Hwy 837). Manitoba Transportation and Infrastructure and RCMP have the authority to shut down highways.

f) Contact the Workers Compensation Board within 5 days of becoming aware of an injury or illness that will result in lost work.

g) Contact Manitoba Environment, Climate and Parks if the incident impacts sensitive or natural areas, crown lands, forests, farm lands, wildlife, or wet areas / water bodies.

h) Environment & Climate Change Canada (ECCC) will be notified by Manitoba Environment, Climate and Parks as required for incidents involving regulated substances at E2 registered facilities, incident impacts sensitive or natural areas, crown lands, farm lands, wildlife, or wet areas / water bodies.

i) Contact the Canadian Transport Emergency Centre (CANUTEC) when a highway is shut down, there is an injury or fatality, there is lost, stolen or unlawfully interfered with dangerous goods (except Class 9), the incident involves infectious substances, there is an accidental release from a cylinder that has suffered a catastrophic failure, where the shipping documents display CANUTEC's telephone number, where a railway vehicle, ship, aircraft aerodrome or an air cargo facility is involved, when a facility is closed, evacuation/shelter-in-place procedures take place as a result of the transportation of dangerous goods, containment has been damaged and integrity compromised, or the centre/stub sill of a tank car is broken or there is a crack in the metal $\geq 15 cm(6")$. CANUTEC can also provide guidance on handling procedures for toxic material releases.

j) Emergency Response Assistance Canada will only respond to incidents that involve the following UN numbers: 1075 (Propane, Butane, etc.) and 1010 (Butadiene); with a tank storage capacity of 450 litres or greater. Advisory assistance will be provided to incidents involving tank storage capacities less than 450 litres.

k) Contact the Department of Fisheries and Oceans Canada to report an oil spill that occurs in or around fresh and marine waters.

l) Indian Oil & Gas (IOGC), the First Nation and the provincial authority must be notified immediately in the event of any health or environment-threatening emergency or off-lease spills on First Nation reserve lands. On-lease spills greater than 1m3 must be reported to IOGC immediately.

1   In the event of a fatality, request that the RCMP contact the Medical Examiner. The RCMP must be notified in the case of lost, stolen or misplaced explosives, radioactive materials or infections substances.

2   Local Authorities include: cities, towns, villages, rural municipalities, Métis settlements or First Nations reserves.

3   Notify the Manitoba Emergency Management Organization of any emergency that has resulted, or may result in: death or injury to multiple persons, significant damage to multiple properties, critical infrastructure, the environment, the economy, any emergency which is likely to overwhelm local resources, or any emergency which may require Provincial or Federal assistance.

4   Contact the Canada Energy Regulator (via the Transportation Safety Board of Canada) for emergencies and near-misses involving CER regulated sites and inter-provincial pipelines.

5   Manitoba Environment, Climate and Parks - Environmental Branch, Fire Branch, Forestry Branch, Parks and Natural Areas Branch, Protected Areas Branch, Sustainable Resource Management, Wildlife & Ecosystem Protection Branch.

H2Safety

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Lead Agency Roles

	Before the Incident	During the Incident	After the Incident

Common Tasks	☐ All departments/agencies should participate in training and exercises for this plan and the Energy Resources Industry Emergency Support Plan (ERIESP).
	☐ This plan will be reviewed as required.
	☐ A join multi-department/agency exercise will be held as required.
		☐ The AER may activate the ERIESP based on the following criteria:
		  ☐ Level 2 or 3 emergencies (as defined by the AER)
		  ☐ Any level of emergency:
		    ☐ requires coordination of multi-agency response;
		    ☐ requires coordination of information and communication between departments/agencies and/or has significant provincial/national media interest.
		☐ Elevations of the POC will be escalated by AEMA. Once the elevations level of the POC has been escalated, provincial-level emergency control will be coordinated by AEMA under the leadership of the lead agency.
		☐ The AER will develop emergency objectives to guide the GoA response and support to duty holders and local authorities. AEMA will assist the AER by providing leadership and strategic policy direction for the GoA as per the *Government Emergency Management Regulation (AR 248/2007)*.
		☐ GoA emergency management assistance will be provided to the local authority as requested and as long as is required by the local authority.
			☐ Complete a Post Incident Assessment (PIA) based on the scope of their involvement and the outcome.
			☐ Integrate PIA into internal response processes.
			☐ All departments/agencies will participate in a joint PIA to be coordinated by AER. Participation from each department/agency will be determined by the response to the emergency.
			☐ Reports required by other regulatory authorities must be completed and delivered to the appropriate regulatory body within the time lines they prescribe.

***Alberta Energy Regulator (AER)**	☐ Confirm and act as lead Government of Alberta (GoA) organization in energy resources industry emergency preparedness and response. ☐ Set requirements for planning for, and responding to energy resources industry emergencies. ☐ Participate in exercises of this plan. ☐ Review and recommend changes to this plan. ☐ Maintain 24/7 telephone contact where energy resources industry emergencies can be reported. ☐ Maintain 24/7 emergency contact numbers where resources can be accessed to carry out a response to this plan. ☐ Make this plan available to stakeholders. ☐ Communicate changes to the plan with stakeholders ☐ Maintain emergency response resources. ☐ Act as Subject Matter Expert (SME).	☐ Receive notification of energy resources industry emergencies. ☐ Determine the emergency level of an emergency through consultation with the duty holder. ☐ Dispatch AER representative to the site of the emergency, as required. ☐ Confirm that local resources have been notified as appropriate. ☐ Monitoring discharges and ensuring appropriate mitigation and response actions are taken to reduce the impact of liquid releases for land based spills and to ensure watercourses are protected. ☐ Confirm, plan and/or implement public safety actions taken to ensure the safety of the public and the environment, including issuing Fire Hazard Orders or requesting NOTAMs. ☐ As lead agency, provide coordination for departments/agencies and duty holder on site. ☐ Request a local authority liaison officer to be present at the REOC, if necessary. ☐ Activate the Energy Resources Industry Emergency Support Plan. ☐ Advise AEMA to escalate POC activation (if required). ☐ Identify and request initial provincial resources to support the emergency response, to be coordinated at the regional level if necessary through a local or regional EOC. ☐ Initiate consolidated Situation Reports through AEMA. ☐ Provide Situation Reports to AEMA if requested. ☐ Send an AER representative to the emergency location and/or the incident command post. ☐ Establish an EOC at the local AER Field Centre until the duty holder or local authority establishes a REOC. AER ECC will be expanded if a REOC is not established. ☐ Dispatch an AER representative to the REOC when it opens. ☐ Request the deployment of other provincial GoA department/agency representative to be present at the REOC, or the local AER Field Centre ECC. ☐ Provide timely situation reports, through AEMA, to other GoA departments/agencies activated by this plan. ☐ Notify all participants when the emergency has concluded and there is no longer any hazard to the public.	☐ Conduct the PIA related to the response, as described by the ERIESP. ☐ As part of the PIA, recommend any mitigation actions that may improve the coordination of the GoA response, as described by the ERIESP. ☐ Establish processes to receive and address community concerns. ☐ Review and update the ERIESP, in consultation with AEMA. ☐ Communicate any changes to the ERIESP to applicable stakeholders.
***AEMA**	☐ Act as the provincial coordinating agency in energy resources industry emergency responses as per the *Emergency Management Act*. ☐ Maintain list of 24 hour emergency contact numbers. ☐ Maintain 24 hour duty manager system.	☐ Confirm AER has been notified. ☐ Conduct the notification in accordance with Section 5.3. ☐ Obtain a situation report from the AER, AEP, local authority, etc. ☐ Confirm the level of emergency. ☐ Elevate the POC as required. ☐ Notify the appropriate provincial officials as per standard operating procedures. ☐ Release consolidated Situation Reports in accordance with section 3.4.4. ☐ Coordinate the Government of Alberta response including requests for provincial/federal resources. ☐ Provide ongoing situation reports or briefing notes to appropriate provincial officials in accordance with the AEP or as requested. ☐ Notify partners and stakeholders when the event is over.	☐ Participate in all PIAs related the ERIESP. ☐ Complete documentation or reporting in relation to the activation of the ERIESP and the emergency for all GoA-wide PIAs.

Local Authority	☐ Work with the operator to effectively prepare for a petroleum industry incident. Provide input to the industrial operator's site-specific plan to ensure it is compatible with the Municipal Emergency Plan (MEP), where feasible.
	☐ Participate in industrial operators' preparatory training and exercises where possible.
	☐ Train personnel to carry out functions as assigned by MEP or procedures.
	☐ Maintain 24 hour emergency contact numbers.
	☐ Meaningful planning (including confirmation and coordination of roles and responsibilities) between the local authority and the licensee/operator has taken place.
	☐ Details on municipal emergency response capacity and planning are found in the applicable municipal emergency plan.
		☐ Receive notification and work with the licensee/operator.
		☐ In a petroleum industry incident, determine if the incident can be managed and the level of support that would be needed if required from AER and AEMA. If the local authority, licensees or operators are unable to manage the response, the AER with assistance from AEMA will manage the response.
		☐ Send a local authority liaison officer to be present at the AER regional EOC if necessary.
		☐ If AEMA is providing support provide regular situation reports.
		☐ Respond to and assess the emergency incident.
		☐ Establish contact with the industrial operator in order to:
		  ☐ Obtain additional hazard information.
		  ☐ Determine where road blocks should be or are established.
		  ☐ Determine the direction of approach to the incident.
		  ☐ Determine if there are any injuries.
		  ☐ Find out what response and public protection actions have been taken.
		  ☐ Identify the location of the On-site Command Post (OSCP) and any Emergency Operations Centres (EOCs).
		☐ Activate the MEP, when required.
		☐ Manage the Local Authority's emergency response.
		☐ Activate the emergency public warning system to alert people to life threatening hazards, as required.
		☐ Activate the Municipal EOC (MEOC), as required.
		☐ Initiate public protection measures, as necessary.
		☐ May dispatch a representative to the Provincial Operations Centre (POC), when it is established, to coordinate the response, if requested.
		☐ If necessary, declare a local State of Emergency.
		☐ If the hazard area extends beyond the Emergency Planning Zone (EPZ), the county will coordinate evacuation of the public as well as reception centre establishment and maintenance with the industrial operator.
		☐ When possible, work with all other responders to establish a single Regional EOC (REOC).
		☐ Establish a public information service, including the use of the news media to inform and instruct the public of the emergency and of any protective actions to be taken.
		☐ Coordinate news releases with the licensee, if required.
		☐ Inform AEMA and the public when the emergency is over.
			☐ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
			☐ Participate in multi-agency debriefings.

Alberta Health Services (AHS)	Alberta Health Services (AHS) - Environmental Public Health (EPH) roles and responsibilities in public health emergency preparedness and response to oil and gas industry are outlined below. The provision of services during an emergency depends upon our assessment of legislative responsibilities, impact to services, and business continuity. Environmental Public Health will endeavor to: ☐ Participate with the licensee in the development of their Emergency Response Plans as it relates to the Environmental Public Health Program's role and responsibility. ☐ Provide the AHS Zone Single-Point-of-Contact (SPOC) emergency phone number to enable the Licensee to notify and alert the Zone of an emergency. From the initial notification or alert, AHS emergency response will fan out and coordinate with other AHS programs and facilities as necessary. The 911 EMS services remain independent of the Zone SPOC notification/alert process. ☐ Participate with stakeholders in preparedness training and exercises associated with a Licensee's simulated activation of an Emergency Response Plan in which Environmental Public Health has a role and responsibility. ☐ Participate in public information sessions during the Licensee's Emergency Response Plan development process when appropriate and as resources allow.	☐ Provide guidance to stakeholders and local municipal authorities in identifying sites suitable for establishing and operating an evacuation centre and/or reception centre, including operational requirements. ☐ Provide guidance to stakeholders on substances that may affect public health in consultation with the Zone Medical Officer of Health (MOH), including Alberta Health Acute Exposure Health Effects for Hydrogen Sulphide and Sulphur Dioxide information. ☐ Conduct assessments, inspections and give regulatory direction, when appropriate, to ensure the requirements of provincial legislation and EPH program areas of responsibilities for public health protection and disease prevention are maintained. ☐ Notify the Zone Medical Officer of Health of any incident affecting or potentially affecting other AHS programs or facilities. The Zone MOH will notify and coordinate emergency response in other program areas and facilities as necessary. ☐ Establish EPH emergency management operations, when appropriate, to support regional efforts and liaise with the Government Emergency Operations Centre, Municipal Emergency Operations Centre and/or Industry Emergency Operations Centre, if needed. ☐ Assist the Zone Medical Officer of Health, local municipal authority, and Public Information/Communication officers in the development, issuance, and rescinding of public health, public evacuation, and shelter-in-place advisories. ☐ Provide guidance to stakeholders on matters relating to evacuation of the public and/or public facilities, and the re-occupancy of those evacuated areas or facilities. ☐ Record and respond to health complaints or concerns from the public during and following and incident.	☐ Record and respond to health complaints or concerns from the public during and following and incident. ☐ Participate in stakeholder debriefings as necessary.

Note: The roles for the local authority(s) and regional health authority(s) are not outlined in the Energy Resources Industry Emergency Support Plan (ERIESP) Plan and will be coordinated during the public consultation program.
*AER - Alberta Energy Regulator   *AEMA - Alberta Emergency Management Agency   *AHS - Alberta Health Services

Revised June 2018

H2Safety

Lead Agency Roles

AB Emergency Services

The first level of emergency response is provided by fire and/or police services and may involve the activation of the Emergency Operations Centre (EOC). Other first responders, such as the RCMP and Emergency Medical Services, or EMS, have a provincial mandate but with a local presence through detachments or stations. These agencies are usually accessed through 911 and have internal dispatch arrangements.

- First responders work at the site level of an event and include police, fire and ambulance. Activities of first responders include medical response, firefighting and managing crowds or evacuation zones
- When a local authority EOC is activated, police and fire first responder agencies provide situational awareness to the local authority and submit requests for support to the local authority EOC
- First response services provided by a fire department are determined by the local authority responsible, and may include hazardous material incident response, road rescue, and medical rescue
- Emergency Medical Services, or EMS, operates under the authority of the Alberta Health Services. No matter where an emergency happens in Alberta, AHS EMS can transport patients by either a ground ambulance or air ambulance – fixed wing airplane or helicopter.
- AHS EMS staff actively participates in emergency planning, mock emergency exercises and other joint training initiatives to ensure emergency preparedness and response resources are identified and deployed quickly and effectively when they are needed most
- Maintain readiness status for emergency notification
- Participate in industrial operators' exercises where possible
- Maintain 24 hour emergency contact numbers

RCMP
- RCMP or local police would also become involved if there are fatalities, as they are required to participate in the investigations. This could be through the medical examiner.
- Maintain law and order and assist the operator with local security but would require discussion with the local police at the time.
- The Office of the Fire Commissioner (OFC) has a working relationship with the RCMP and the RCMP may conduct selected duties of the Fire Commissioner where the fire's impact is not significant.
- Assist with traffic control, crowd control, evacuation, and residence security.
- Typically would not be involved in setting up or maintaining roadblocks unless the emergencies impacted or required the closure of 1, 2 and 3 digit Provincial or Secondary highways.
- Establish and maintain communications with industrial operator.
- Dispatch a representative to the off-site Regional Emergency Operations Centre, when established, to coordinate the response.
- Coordinate with the industrial operator both the establishment and the administration of reception centres for evacuees.
- Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans.

Fire
- Respond to and assess emergency incident to the scope of their abilities.
- Establish a unified OSCP / ICP (On-site Command Post / Incident Command Post).
- Communicate to MEOC and provide site reps as required.
- Assist with fire protection where trained personnel are available.
- Provide emergency medical assistance, as required.
- Coordinate news releases with the licensee, if required.

EMS
- Respond to and assess emergency incident to the scope of their abilities.
- The Alberta Health Services provides and coordinates ambulance services within Alberta, including triage, treatment, transportation and care of casualties
- Provide emergency medical assistance, as required. Emergency Medical Technicians (EMT) or Emergency Medical Responders (EMR) provide basic patient assessment and treatment including obtaining vital signs, administering oxygen and splinting extremities.
- ALS ambulances have at least one paramedic with expanded training, scope of practice, and can provide advanced treatment in airway management and medication administration.

- Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
- Participate in multi-agency debriefings.

Note: The roles for the local authority(s) and regional health authority(s) are not outlined in the Petroleum Industry Incident Support Plan and will be coordinated during the public consultation program.

*AER - Alberta Energy Regulator (Oil & Gas) / *AEP - Alberta Environment and Parks)　　　*AEMA - Alberta Emergency Management Agency　　　*EMERGENCY SERVICES – as managed / operated by the Local Authority / Health Authority

Revised June 2018

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	Before the Incident	During the Incident	After the Incident
*BCER	The Emergency Response and Safety Department is the lead department responsible for emergency management within the BCER. The Department oversees the administration of the EMCR. This includes: ☐ Reviewing industry emergency management programs and plans ☐ Participating in permit holder emergency response exercises ☐ Providing 24 hour Emergency Officer services ☐ Leading emergency and incident follow-up and investigation ☐ Administering incident and complaint response services ☐ The BCER uses a combination of reviews, assessments, and field inspections. ☐ To ensure permit holders maintain compliance with the requirements detailed in the Emergency Management Regulation and the Oil and Gas Activities Act. The audit and inspection program objectives are to ensure permit holders have adequate processes and procedures in place. ☐ Participate in selected licensee ERP exercises. ☐ Maintain a 24 hour telephone contact where petroleum industry incidents can be reported.	During emergencies the BC Energy Regulator (BCER) acts as a liaison between industry operators and the provincial emergency management structure to provide situation updates related to threatened oil and gas assets. ☐ Oversee operator's response to an incident. ☐ Notified by EMCR of incidents within BCER's jurisdiction (on lease). ☐ Establish communication with operator. ☐ Confirm incident level with operator. ☐ Confirm downgrade of incident level. ☐ Issue road closure order upon request from operator. ☐ Request NOTAM order upon request from the operator. ☐ May send an BCER representative to operator's On-Site Command Post and / or Evacuation Centre. ☐ May establish a government EOC at the BCER office. ☐ Confirm ignition decision with operator if time permits. ☐ Confirm media releases to be sent out by operator.	☐ Close EOC if established. ☐ Participate in event debriefings. ☐ Receive and review Post-Incident reports. ☐ May audit licensee records.
*EMCR	☐ Assist the BCER with planning initiatives regarding petroleum industry emergency response as requested by the BCER. ☐ EMCR Northeast Region receives Industry Facility Emergency Response Plans. ☐ Participate in selected licensee ERP exercises when requested as time permits. ☐ Maintain a 24 "800" telephone contact where petroleum industry spill incidents can be reported. ☐ Maintain 24 hour emergency contact numbers for local governments and provincial emergency responders.	☐ ECC Victoria will notify the BCER on call Emergency Response Officer and initiate British Columbia's notification of government agencies including MOF, MOE, MOT, Health Unit, WorkSafe BC, affected municipalities and all other level of government and industry, depending on the level of "coding" (notification code 1,2,3 is determined by the Lead Agency MOE or BCER), depending on the code level Standard Operating Procedures (SOPs) in ECC will determine who is notified. ☐ Provide representatives to help coordinate provincial response as required.	☐ As requested by BCER

Local Authority / Regional Districts	☐ Set up and maintain an emergency management organization which can include an executive committee, emergency program management committee, emergency program coordinator or emergency social services director.
	☐ Develop and maintain a Hazard, Risk and Vulnerability Analysis (HRVA) to identify potential emergencies and disasters in its jurisdictional area.
	☐ Educate community residents and business owners about the need for personal emergency preparedness.
	☐ Prepare for emergencies and disasters through mitigation, preparedness, response and recovery planning.
	☐ Conduct training and exercises for all emergency response staff.
	☐ Establish procedures for implementing, reviewing and revising response and recovery plans.
	☐ Complete periodic reviews and updating of the local emergency plan.
	☐ Respond to emergencies when required.
	☐ Establish procedures for notifying persons threatened by emergencies or impending disasters.
	☐ Identify procedures for obtaining emergency resources.
	☐ Establish priorities for restoring essential services.
	☐ Work with volunteer groups to plan for the provision of food, clothing and shelter to victims.
	☐ Participate in industrial operators' preparatory training and exercises where possible.
	☐ Maintain 24 hour emergency contact numbers.
		☐ Provides the local government response for rural and crown areas.
		☐ Assesses the situation.
		☐ Provides support to the first responders, including resources.
		☐ Provides public information, including media briefings.
		☐ Coordinates the provision of food, clothing, shelter and transportation.
		☐ Liaises with volunteer groups.
		☐ Provides situation reports to the PREOC.
		☐ Tracks finances.
		☐ Coordinates recovery of essential services.
		☐ Coordinates community recovery efforts.
		☐ During emergencies and disasters the local authority's primary link to the provincial emergency management structure is the PREOC.
		☐ When a local authority EOC is activated, police and fire first responder agencies provide situational awareness to the local authority and submit requests for support to the local authority EOC.
		☐ Establish contact with the industrial operator in order to:
		   ☐ Obtain additional hazard information.
		   ☐ Determine where roadblocks should be or are established.
		   ☐ Determine the direction of approach to the incident.
		   ☐ Determine if there are any injuries.
		   ☐ Find out what response and public protection actions have been taken.
		   ☐ Identify the location of the On-site Command Post (OSCP) and any Emergency Operations Centres (EOCs).
		☐ Activate the MEP, when required.
		☐ Manage the Local Authority's emergency response.
		☐ Activate the emergency public warning system to alert people to life threatening hazards, as required.
		☐ Activate the Municipal EOC (MEOC), as required.
		☐ May dispatch a representative to the Government EOC (GEOC), when it is established, to coordinate the response, if requested.
		☐ If necessary, declare a local State of Emergency.
		☐ When possible, work with all other responders to establish a single Regional EOC (REOC).
		☐ Inform EMCR and the public when the emergency is over.
			☐ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
			☐ Participate in multi-agency debriefings.

*BC Emergency Services	The first level of emergency response is provided by fire and/or police services and may involve the activation of the Emergency Operations Centre (EOC). Other first responders, such as the RCMP and British Columbia Ambulance Service, have a provincial mandate but with a local presence through detachments or stations. These agencies are usually accessed through 911 and have internal dispatch arrangements. ☐ First responders work at the site level of an event and include police, fire and ambulance. Activities of first responders include medical response, firefighting and managing crowds or evacuation zones. ☐ When a local authority EOC is activated, police and fire first responder agencies provide situational awareness to the local authority and submit requests for support to the local authority EOC. ☐ First response services provided by a fire department are determined by the local authority responsible, and may include hazardous material incident response, road rescue, and medical rescue. ☐ The BC Ambulance Service (BCAS) operates under the authority of the Emergency and Health Services Commission (EHSC) and is tasked with the provision of pre-hospital emergency care and transport of patients across the province. ☐ BCAS staff actively participates in emergency planning, mock emergency exercises and other joint training initiatives to ensure emergency preparedness and response resources are identified and deployed quickly and effectively when they are needed most. ☐ Participate in industrial operators' exercises where possible. ☐ Maintain 24 hour emergency contact numbers.	**RCMP** ☐ Maintain law and order and assist the operator with security. ☐ Assist with mobilization of additional resources as directed by EMCR. ☐ Assist with traffic control, evacuation, and residence security. ☐ Assist with setting up and maintaining roadblocks or closures of 1, 2 and 3 digit Provincial or Secondary highways. ☐ Establish and maintain communications with industrial operator. ☐ Dispatch a representative to the off-site Regional Emergency Operations Centre, when established, to coordinate the response. ☐ Coordinate with the industrial operator both the establishment and the administration of reception centres for evacuees. ☐ Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans. **Fire** ☐ Respond to and assess emergency incident to the scope of their abilities. ☐ Establish a unified OSCP / ICP (On-site Command Post / Incident Command Post). ☐ Communicate to MEOC and provide site reps as required. ☐ Assist with fire protection where trained personnel are available. ☐ Provide emergency medical assistance, as required. ☐ Coordinate news releases with the licensee, if required. **EMS** ☐ Respond to and assess emergency incident to the scope of their abilities. ☐ The BC Ambulance Service provides and coordinates ambulance service s within British Columbia, including triage, treatment, transportation and care of casualties. ☐ The BC Ambulance Service provides situational awareness and coordinates resources through the PREOCs and PECC. ☐ Provide medical aid and transportation of ill or injured workers to a medical facility during high risk operations as required under the *WCB Act* and WSBC Regulations. ☐ Provide emergency medical assistance, as required.	☐ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ☐ Participate in multi-agency debriefings.

Lead Agency Roles

BRITISH COLUMBIA
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*BCER - BC Energy Regulator   *EMCR - Ministry of Emergency Management and Climate Readiness   * Emergency Services - as managed / operated by the Local Authority   Revised February 2023

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Lead Agency Roles

	Before the Incident	**During the Incident**	**After the Incident**
Northern Health Authority	Northern Health is the regional health authority responsible for providing health services to 300,000 people over an area of 600,000 square kilometers in the province of British Columbia. Services include: ❐ Acute (hospital) Care ❐ Public Health (Protection, Preventive and Population Health services ❐ Mental Health and Addictions ❐ Home and Community Care ❐ In the event of a major emergency/disaster, Northern Health will provide health care services within its capacity, and will activate its emergency response management plan(s). ❐ Participate with industry, local authority and other partners in the development of their Emergency Response Plans as it relates to health authority roles and responsibilities. ❐ Participate in stakeholder training and exercises associated with activation of an Emergency Response Plan, in which Northern Health or HEMBC have a role and responsibility.	❐ Activate internal emergency response management plans related to ongoing provision of its services ❐ Provide acute care and emergency services at existing Northern Health hospitals/health centres. ❐ Work with BC Emergency Health Services (Ambulance) and the BC Patient Transfer Network to transport patients to the appropriate levels of care. ❐ Apply and enforce the Public Health Act, and associated regulations. ❐ Provide advice/information to the stakeholders on the existing or potential public health effects of an incident (including drinking water safety, air quality, environmental contaminants, communicable disease prevention, re-occupancy of evacuated areas, etc.). ❐ Provide advice/information on the best methods for monitoring health effects from an incident. ❐ Assist in development of (joint) messaging for public information on emergency incidents. ❐ Provide guidance to stakeholders and local authorities on public health considerations in operating reception and evacuation centres, and group lodging facilities.	
Ministry of Justice	The Police and Community Safety Branch of the Ministry of Justice will work with EMCR to: ❐ Prepare, promulgate and implement orders relating to law enforcement and internal security. ❐ Provide through the jurisdictional police force: ❐ Advice to local authorities respecting the maintenance of law and order ❐ Reinforcement of local police services ❐ Security control of emergency areas; and ❐ Traffic and crowd control ❐ The Ministry of Justice provides legal services to the government. Policy direction and legislative changes are made in consultation with the Ministry of Justice. During emergencies or disasters the Ministry of Justice may be called on to assist with risk management and provide expertise. This could include providing advice to provincial ministries and government corporations on legal matters relating to the preparation and promulgation of emergency orders, regulations, declarations and contractual arrangements.	❐ Jurisdictional police forces to task search and rescue services for missing persons on land and in inland waters. ❐ Before, during and after an emergency the Ministry of Justice could be called upon to provide expertise, technical advice and/ or policy direction regarding police and correctional services. ❐ The Minister of Justice has overall responsibility for emergency management in the province. In the event of a disaster, the Minister may: ❐ Declare a provincial state of emergency ❐ Make a formal written request for federal assistance or aid from the Government of Canada ❐ Direct the establishment of M-DEC ❐ Inform his/her colleagues of the situation, and ❐ Be available for media interviews	

BRITISH COLUMBIA
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Before the Incident	During the Incident	After the Incident

Ministry of Energy and Resources (ER)

Before the Incident

The Energy Regulation Division is responsible for regulating environmental aspects of the oil and gas industry. This division has major responsibilities in all areas related to provincial jurisdiction over oil and gas resources.
- Act as the lead provincial government organization in petroleum industry emergency responses.
- Participate in selected licensee ERP exercises.
- Review and recommend changes to Emergency Response Plans.
- Maintain a 24 hour telephone contact where petroleum industry incidents can be reported.
- Maintain 24 hour emergency contact numbers where resources can be accessed to carry out a response to Emergency Response Plans.
- Approve applications for wells, production facilities, pipelines and gas plants, under the authority of the Oil and Gas Conservation Act/Regulations, the Pipelines Act, and the Crown Mineral Act/Regulations.
- Inspect and monitor field operations associated with the petroleum industry.
- Approve exploration programs.
- Control produced water disposal.

During the Incident

- Receive information pertaining to petroleum industry incidents.
- Initiate notification of other government agencies.
- May directly alert the following agencies as required:
  - Closest RCMP detachment
  - Local / Municipal / Regional authorities
  - Other government agencies
- Assist the Canada Energy Regulator (CER) if required.

After the Incident

- Participate in a lessons learned process based on the scope of their involvement and the outcome.
- Monitor spills and cleanup, and approve specific waste treatment and remediation programs.

Saskatchewan Public Safety Agency (SPSA)

Before the Incident

- Maintain 24-hour emergency contact numbers.
- Maintain 24-hour response duty officers.
- Maintain GEOC readiness.

During the Incident

- Coordinate provincial operations in response to a provincially or nationally declared emergency.
- Provide direction, leadership and support to the conduct of emergency operations.
- Manage the preparedness, activation, support and operations conduct of the Provincial Emergency Operations Centre and alternate centres.
- Coordinate information gathering and dissemination.
- Prepare and distribute all communications such as situation reports and alerts.
- Coordinate provincial operations in response to requests for assistance from the Federal Government or other government ministries, Crown corporations, agencies or municipal governments dealing with emergencies.
- Liaise with Public Safety Canada and, through this agency, other federal government departments and agencies where federal assistance or information is required.
- Liaise with local governments, other Ministries, Crowns, Agencies, provincial and territorial governments and Critical Infrastructure stakeholders where assistance, involvement and/or information are required.
- Through the Chief of Emergency Management provide reports to the Deputy Minister/President responsible for Emergency Management and/or the Ministers' Committee on Emergency Management, Federal/Provincial/Territorial Senior Official Committee on Emergency Management, Cabinet or Cabinet Committees.

After the Incident

- Notify plan holders when the event is over.
- Debrief GEOC participants.
- Compile GEOC log.
- Properly shut down GEOC.
- Participate in event debriefings.
- Communicate any changes of the plan to all plan holders.
- Complete report in relations to the activation of the Emergency Response Plan and the incident.

Ministry of Environment

Before the Incident

- Maintain 24 hour emergency contact number (1-800-667-7525) for reporting environmental emergencies.
- Review project applications to assess potential impacts on fish and wildlife and associated habitat (including fish and wildlife development fund lands and conservation easements), endemic flora, endangered flora and fauna species, timber resources, provincial parks, resource lands, recreational resources waters (wetlands, creeks, rivers and lakes).
- Administer the Saskatchewan environment assessment and review process as outline in the Environmental Review Guidelines for Oil and Gas Activities to assess, regulate, and mitigate the impact of alterations to the natural environment by oil and gas activities.
- Grant surface leases and easement agreements on Crown resource lands under the authority of several Acts. Provide advice on project development in environmentally sensitive areas, including guidance on environmentally acceptable construction and development practices.
- Provide administration and management of Crown Lands in regard to habitat concerns to ensure sustainability and biological diversity.
- Establish conditions for the management and protection of natural resources including forests, fish, wildlife, lands, waters and parks.
- Protection of primary resources including air, water, and soil using regulatory and non--regulatory controls (i.e., pollution prevention and regulation of waste dangerous goods).
- Conduct field inspections to ensure that project development and operation comply with relevant regulatory requirements.

Forest Services
- Operating plan approvals and permit issuance.
- Monitoring, inspecting, compliance and enforcement.
- Review and approval of timber harvesting dispositions.

During the Incident

- The ministry is only responsible and/or involved in transportation related spills and hazmat incidents involving upstream oil and gas products. The Ministry of Energy and Resources is the lead for all Oil and Gas incidents associated with pipeline, flowline and well releases.
- Monitor discharges and mitigates impact of release related substances.
- Provide advice as to the effects of igniting the released product.
- Provide advice regarding the effects of the contaminants on wildlife, livestock, plants and soil.
- Provide advice and assistance in developing procedures to mitigate affected wildlife, livestock, plants, soil or farmsteads.
- Provide necessary permits for remediation activities.
- Responsible Party is responsible to provide a plan regarding the effects of the contaminants on wildlife, livestock, plants and soil to be approved by the ministry.
- Responsible Party is responsible to provide a plan to develop procedures to mitigate affected wildlife, livestock, plants, soil or farmsteads to be approved by the ministry.

After the Incident

- The ministry is only responsible and/or involved in transportation related spills and hazmat incidents involving upstream oil and gas products. The Ministry of Energy and Resources is the lead for all Oil and Gas incidents associated with pipeline, flowline and well releases.
- Provide regulatory oversight on development and execution of Environmental Site Assessment.
- Review restoration statements or release requests from operators following facility abandonment and reclamation on Crown.
- Provide regulatory oversight on development and execution of Corrective Action Plans.

Lead Agency Roles

Saskatchewan!

*Ministry of Environment - only contact if the incident impacts sensitive or natural areas, crown lands, farm lands, wildlife, or wet areas / water bodies.

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Lead Agency Roles

	Before the Incident	During the Incident	After the Incident
*Emergency Services	A call to 9-1-1 is often how first responders become aware of an emergency. As more people become aware of an emergency, the affected area increases or the emergency changes, more 9-1-1 calls are received. ❑ Local fire, police, paramedic, and search and rescue teams are normally the first to respond to an emergency. They are responsible for managing most local emergencies as part of the municipal emergency plan. ❑ Maintain readiness status for emergency notification. ❑ Participate in industrial operators' exercises where possible. ❑ Maintain 24 hour emergency contact numbers.	**RCMP** ❑ Provide emergency site security (establish inner and outer perimeter of emergency site). ❑ Assist in traffic and crowd control. ❑ Coordinate search and rescue activities. ❑ Assist with evacuations. ❑ Advise medical examiner in the event of a fatality. ❑ Log all actions. **Fire** ❑ Coordinate fire suppression, dangerous goods and rescue (except ground search and rescue). ❑ Activate the Fire Mutual Aid system if necessary. ❑ Assist with the evacuation of people. ❑ Log all actions. **EMS** ❑ Act as the Emergency Site Manager, unless circumstances dictate otherwise. ❑ Casualty evaluation ❑ First aid on-site ❑ Casualty sorting and transportation.	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ❑ Participate in multi-agency debriefings.

Local Authority / Rural Municipalities	In Saskatchewan, municipalities are obligated to establish emergency plans by *The Emergency Planning Act, 1989,* which also empowers council to be responsible for the direction and control of a municipal emergency response (to take action to implement the plan and to protect the property, health, safety and welfare of the public). **The legislation is mandatory** - it requires municipalities to:
	   ❑ Appoint a municipal planning committee
	   ❑ Establish an Emergency Measures (Management) Organization (EMO)
	   ❑ Appoint an Emergency Coordinator; and
	   ❑ Prepare an emergency plan.
	❑ Work with the operator to effectively prepare for a petroleum industry incident. Provide input to the industrial operator's site-specific plan to ensure it is compatible with the Municipal Emergency Plan (MEP), where feasible.
	❑ Participate in industrial operators' preparatory training and exercises where possible.
	❑ Train personnel to carry out functions as assigned by MEP or procedures.
	❑ Maintain 24 hour emergency contact numbers.
		❑ Respond to and assess the emergency incident.
		❑ Establish contact with the industrial operator in order to:
		   ❑ Obtain additional hazard information.
		   ❑ Determine where road blocks should be or are established.
		   ❑ Determine the direction of approach to the incident.
		   ❑ Determine if there are any injuries.
		   ❑ Find out what response and public protection actions have been taken.
		   ❑ Identify the location of the On-site Command Post (OSCP) and any Emergency Operations Centres (EOCs).
		❑ Activate the MEP, when required.
		❑ Manage the Local Authority's emergency response.
		❑ Activate the emergency public warning system to alert people to life threatening hazards, as required.
		❑ Activate the Municipal EOC (MEOC), as required.
		❑ Initiate public protection measures, as necessary.
		❑ May dispatch a representative to the Government EOC (GEOC), when it is established, to coordinate the response, if requested.
		❑ If necessary, declare a local State of Emergency.
		❑ If the hazard area extends beyond the Emergency Planning Zone (EPZ), the county will coordinate evacuation of the public as well as reception centre establishment and maintenance with the industrial operator.
		❑ When possible, work with all other responders to establish a single Regional EOC (REOC).
		❑ Establish a public information service, including the use of the news media to inform and instruct the public of the emergency and of any protective actions to be taken.
		❑ Coordinate news releases with the licensee, if required.
		❑ Inform Emergency Management & Fire Safety and the public when the emergency is over.
			❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
			❑ Participate in multi-agency debriefings.
			
			The Emergency Coordinator
			❑ Coordinate post-emergency debriefings and preparation of reports.
			❑ Shall ensure amendments to the emergency plan are made.
			❑ Log all actions and decisions.

Saskatchewan Health Authority (SHA)	❑ Maintain readiness status for emergency notification. ❑ Participate in industrial operators' exercises where possible. ❑ Maintain 24 hour emergency contact numbers.	❑ Provide representation at the off-site REOC or at the GEOC when established, if requested and if available. ❑ Provide accurate information to the public concerning the incident. ❑ Provide guidance and assistance at evacuation centre(s). ❑ Provide health related information about toxic chemicals and by-products. ❑ Provide guidance on public health advisories, public evacuation and sheltering. ❑ Provide guidance on rescinding a declaration of public evacuation and on allowing re-occupancy. ❑ Investigate health complaints from the public. ❑ Provide advice to the GEOC and to the REOC on existing or potential health effects associated with the incident where possible. ❑ Provide health advice and safety levels for any health or special care facilities and for other persons that are likely to be sensitive from the impact as a result of the incident. ❑ Ensure local hospitals are alerted when there is potential for an impact from a release. ❑ Coordinate the provision of medical services during an emergency. ❑ Where appropriate and necessary, can declare a Local State of Public Health Emergency. ❑ When possible work with all other responders to establish a single Regional Emergency Operations Centre (REOC). **Saskatchewan Health Authority Representative will:** ❑ Provide emergency medical services on site. ❑ Advise Council through EOC Mgt. Team on related public health issues. ❑ Log all actions.	❑ Compile and maintain health related records and logs. ❑ Participate, where possible, in event debriefings. ❑ Complete incident related reports. ❑ Provide guidance on assessing and mitigating public health risks due to any residual environmental contamination following an event.

Lead Agency Roles

	Before the Incident	During the Incident	After the Incident
*EDIT	❑ The Manitoba Economic Development, Investment and Trade (EDIT) - Resource Development (Petroleum) branch administers provisions under The Oil and Gas Act and The Oil and Gas Production Tax Act relating to exploration, development, production and transportation of oil and gas. ❑ The Branch develops, recommends, implements and administers policies and legislation, to provide for the sustainable development of Manitoba's oil and gas resources. The Branch deals with matters relating to well spacing, production allowable, pool designations, salt water disposal, enhanced recovery projects and unitization. The Branch publishes several reports each year, providing the public, industry and government with information on the petroleum industry in Manitoba. ❑ Establish processes to receive and address community concerns.	❑ Advise and assist in the implementation of petroleum demand restraint measures prior to or during a declared petroleum emergency. ❑ Liaise with the Government of Canada respecting the implementation of the *Energy Supplies Emergency Act (Canada).* ❑ Receive information pertaining to petroleum industry incidents. ❑ Determine the emergency level of an incident through consultation with the licensee. ❑ Dispatch representative to the site of the incident, as required. ❑ Confirm that local resources have been notified as appropriate. ❑ Identify and request initial provincial resources to support the incident, to be coordinated at the regional level if necessary through a local or regional EOC. ❑ Either notify all government agencies or instruct the operator on which government agencies they're to notify during an emergency ❑ Send a representative to the OSCP. ❑ Bring in expertise from other areas, as required. ❑ Provide timely situation reports to other government departments activated by this plan.	❑ As part of the "lessons-learned" process, recommend any mitigative actions that may reduce the event from re-occurring. ❑ Carry out investigations. ❑ Notify all participants when the event has concluded and there is no longer any hazard to the public.

*Manitoba Emergency Management Organization	❑ The Manitoba Emergency Management Organization (EMO) is responsible for overseeing and coordinating all aspects of emergency preparedness in the Province, and managing, directing and coordinating the response of all departments to a disaster or major emergency.
	❑ EMO is responsible for maintaining the Manitoba Emergency Plan. The Plan is the linchpin in EMO's capacity to provide a coordinated and effective response to emergencies and disasters. It explains the provincial emergency response concept, emergency response structure, and the roles and responsibilities of provincial departments and agencies responding to emergencies and disasters.
	❑ EMO assists with major emergencies and disasters through coordination of the disaster response process, including the coordination of provincial, federal and non-government agency resources to assist municipalities. Services provided to the municipalities include consulting, planning support, event activity, post emergency reports, and public information on response activities.
	❑ EMO is responsible to conceive, develop and coordinate a range of recovery programs and policy. EMO provides leadership in developing holistic recovery strategies for implementation in the wake of a major disaster. As such EMO has strong connections to non-governmental organizations who contribute to the overall recovery strategy.
	❑ Prepare and maintain disaster assistance policies and guidelines for emergencies and disasters in Manitoba.
	❑ Develop and maintain policy and procedures for the submission and processing of claims for disaster assistance.
	❑ Prepare a provincial emergency preparedness program and a provincial emergency plan, and conduct regular reviews and revisions of the program and plan.
	❑ Establish and main a registry containing a copy of every emergency plan and emergency management program in effect in the province.
	❑ Review, modify and approve emergency preparedness programs and emergency plans.
	❑ Assist local authorities in practicing their local emergency plans by conducting table top exercises.
	❑ Development and maintenance of procedures for submitting and processing of claims.
	❑ Provide a public disaster assistance awareness program.
	❑ Consulting with government departments and the private sector on establishing and implementing disaster assistance programs.
		❑ Provide assistance to local authorities and provincial departments in the implementation of emergency plans, establishing Emergency Operations Centres, reception centres for evacuees.
		❑ Alert provincial departments and agencies likely to be involved in the emergency.
		❑ Manage, direct and coordinate the response of all departments to a major emergency or disaster. This includes Provincial agencies, Crown Corporations, National Parks, First Nations or other properties within federal jurisdictions.
		❑ Dispatch Emergency Preparedness advisor to the affected community.
		❑ Provision, operation and administration of the Emergency Mobile Command Centre.
		❑ Activation, operation and administration of the Manitoba Emergency Coordination Centre. In addition to the static MECC in Winnipeg, EMO maintains a deployable MECC that can be dispatched closer to the site of the emergency.
		❑ Submission of "Requests for Emergency Response Assistance" to the Government of Canada and / or the Canadian Forces when the Province's capacity to deal with the emergency is exceeded or where specialized resources are required.
		❑ Requesting the assistance of the Director of Communication Services (CH&T) to:
		   ❑ Establish and coordinate Media and/or Public Information Centres, which shall report to the Executive Coordinator, the Deputy Minister and / or the Minister.
		   ❑ Coordinate the activities and media releases of all Departmental Communication Officers required, at departmental emergency operation centres and emergency sites.
		   ❑ Coordinate news releases and public service announcements related to the emergency response.
		   ❑ Coordinate and manage local and visiting media personnel.
		❑ Communication and administration of Government Policy on disaster assistance in accordance with the Emergency Measures Act and Disaster Financial Assistance Policy.
		❑ EMO is the provincial aggregator for the National Public Alerting System. EMO has the capability to provide broadcast interrupted emergency messages through radio and television where and when required.
		❑ EMO will take primary responsibility of an emergency or disaster where unusual circumstances exist:
		   ❑ No local government exists.
		   ❑ The local government no longer has the capacity to respond.
		   ❑ The local government is unable to implement an appropriate on-site system of emergency management.
			❑ Provide an accurate record of the provincial and municipal experience in dealing with the emergency.
			❑ Provide a means of assessing the strengths and deficiencies of the province's response to the emergency, including departmental, municipal and voluntary organizations.
			❑ Identify methods of enhancing the response and subsequently, the development of programs to implement proposals.
			❑ Investigate claims.
			❑ As required, MEMO will be responsible for the preparation of a provincial report which may include:
			   ❑ An executive summary.
			   ❑ Provincial Emergency Response (including local response).
			   ❑ Chronological sequence of significant events.
			   ❑ Overall emergency costs on a departmental basis.
			   ❑ The overall comments and recommendations (from debriefing meetings, departmental / municipal reports).
			   ❑ Department / agency / municipal reports.
			   ❑ The printing and distribution of the provincial report.
			❑ Receive and assess all disaster assistance claims from local authorities, government departments, the Government of Canada or the private sector.
			❑ Compilation and publication of the provincial post-emergency report.

Local Authority / Rural Municipality	❑ Work with the operator to effectively prepare for a petroleum industry incident. Provide input to the industrial operator's site-specific plan to ensure it is compatible with the Municipal Emergency Plan (MEP), where feasible.
	❑ Participate in industrial operators' preparatory training and exercises where possible.
	❑ Train personnel to carry out functions as assigned by MEP or procedures.
	❑ Maintain 24 hour emergency contact numbers.
	❑ May enter into mutual aid agreements with the government, any local authority, any department or any person with respect to the establishment, development or implementation of emergency preparedness programs and emergency plans and the conduct of emergency operations.
	❑ Must review and revise its emergency preparedness programs ad emergency plans from time to time as required by the regulations, to ensure that they continue to meet the standards prescribed by regulation.
	❑ Provide fire protection services within its boundaries to reduce the danger of fire.
		❑ Respond to and assess the emergency incident.
		❑ Establish contact with the industrial operator in order to:
		   ❑ Obtain additional hazard information.
		   ❑ Determine where road blocks should be or are established.
		   ❑ Determine the direction of approach to the incident.
		   ❑ Determine if there are any injuries.
		   ❑ Find out what response and public protection actions have been taken.
		   ❑ Identify the location of the On-site Command Post (OSCP) and any Emergency Operations Centres (EOCs).
		❑ Activate the MEP, when required.
		❑ Manage the Local Authority's emergency response.
		❑ Activate the emergency public warning system to alert people to life threatening hazards, as required.
		❑ Activate the Municipal EOC (MEOC), as required.
		❑ Initiate public protection measures, as necessary.
		❑ May dispatch a representative to the Government EOC (GEOC), when it is established, to coordinate the response, if requested.
		❑ In the event of an emergency or disaster in a municipality, the local authority may declare a state of local emergency for a period of 14 days from the date of the making thereof with respect to part or all of the municipality affected or likely to be affected by the emergency or disaster.
		   ❑ A local authority that has declared a state of local emergency must give the coordinator any information he or she requests about the authority's response to the disaster or emergency and its effects on the municipality.
		   ❑ Notify Manitoba EMO that an Emergency Prevention Order or State of Local Emergency has been declared.
		❑ When possible, work with all other responders to establish a single Regional EOC (REOC).
		❑ Establish a public information service, including the use of the news media to inform and instruct the public of the emergency and of any protective actions to be taken.
		❑ Coordinate news releases with the licensee, if required.
		❑ Inform Manitoba EMO and the public when the emergency is over.
		❑ At the site of an emergency or disaster, a local authority must:
		   ❑ Carry out an action,
		   ❑ Cease an action it is carrying out, or
		   ❑ Change the way it is carrying out an action if directed to do so by the fire commissioner.
			❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
			❑ Participate in multi-agency debriefings.

*EDIT - Economic Development, Investment and Trade (EDIT) - Resource Development (Petroleum)   *EMO - Manitoba Emergency Management Organization   Revised July 2023

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Manitoba

Lead Agency Roles

Emergency Services

Before the Incident

In any emergency, initial requests for assistance from the public are usually directed to emergency responders, i.e. police, fire or EMS providers through 911 or a local emergency telephone number. It is the fire department that usually has the training, equipment and knowledge to safely and effectively manage many of the large scale emergencies.

❑ Maintain readiness status for emergency notification.
❑ Participate in industrial operators' exercises where possible.
❑ Maintain 24 hour emergency contact numbers.

During the Incident

Local authorities, provincial or federal departments and agencies (including E911 centres and first responders) which become aware of an event that either has, or could, result in a major emergency or disaster, shall notify the EMO as soon as possible, by calling the **EMO Duty Officer 24/7** ▮▮▮▮▮▮

Any emergency that has resulted, or may result in:
❑ Death or injury to multiple persons.
❑ Significant damage to:
    ❑ Multiple properties,
    ❑ Critical infrastructure,
    ❑ The environment,
    ❑ The economy, or
❑ Any emergency which is likely to overwhelm local resources.
❑ Any emergency which may require Provincial or Federal assistance (other than specialist resources that are provided in the ordinary course).

RCMP
❑ Advise local authorities respecting the maintenance of law and order.
❑ Provide security control of the emergency operations area(s).
❑ Provide security control of evacuated area(s).
❑ Provide traffic and crowd control.
❑ Administer public access and egress system within the flood plain and community ring dikes, in cooperation with the Departments of Conservation, Transportation and Infrastructure, and Water Stewardship.
❑ Assist the Chief Medical Examiner.
❑ Conduct search and rescue of missing persons.
❑ Coordinate forced evacuations.
❑ Maintain law and order and assist the operator with local security but would require discussion with the local police at the time.
❑ Assist with mobilization of additional resources.
❑ Typically would not be involved in setting up or maintaining roadblocks unless the emergencies impacted or required the closure of 1, 2 and 3 digit Provincial or Secondary highways.
❑ Establish and maintain communications with industrial operator.
❑ Dispatch a representative to the off-site Regional Emergency Operations Centre, when established, to coordinate the response.
❑ Coordinate with the industrial operator both the establishment and the administration of reception centres for evacuees.
❑ RCMP or local police would also become involved if there are fatalities as they are required to participate in the investigations. This could be through the medical examiner.
❑ The Office of the Fire Commissioner (OFC) has a working relationship with the RCMP and the RCMP may conduct selected duties of the Fire Commissioner where the fire's impact is not significant.
❑ Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans.

Fire
❑ Respond to and assess emergency incident to the scope of their abilities.
❑ Establish a unified OSCP / ICP (On-site Command Post / Incident Command Post).
❑ Communicate to MEOC and provide site reps as required.
❑ Assist with fire protection where trained personnel are available.
❑ Provide emergency medical assistance, as required.
❑ Coordinate news releases with the licensee, if required.
❑ Provide response to dangerous goods incidents.
❑ By special order issued by the Minister responsible for this act (Emergency Medical Response and Stretcher Transportation), fire department personnel **MAY** operate an ambulance at the scene of an emergency incident when requested to do so by the EMS attendant(s), providing that the municipal fire fighter(s) possess the required Class 4 drivers license.

EMS
❑ Respond to and assess emergency incident to the scope of their abilities.
❑ Provides situational awareness and coordinates resources through the PREOCs and PECC.
❑ Provide emergency medical assistance, as required.
❑ Establish Incident Command.
❑ Provide first aid on site.
❑ Initiate health mutual aid if necessary.
❑ Log all actions and decisions.

After the Incident

❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
❑ Participate in multi-agency debriefings.

*Regional Health Authority

Before the Incident

❑ The regional health authorities are responsible within the context of broad provincial policy direction, for assessing and prioritizing needs and health goals, and developing and managing an integrated approach to their own health care system.
❑ Land ambulance services are delivered by a combination of providers including the Regional Health Authorities and other service providers under an agreement with regional health authorities (e.g., municipalities, First Nation communities).
❑ The air ambulance service providers include the provincial Lifeflight program (specialized air ambulance services operated provincially) and private air ambulance providers (basic air ambulance services).

During the Incident

❑ Provide representation at the off-site REOC or at the GEOC when established, if requested and if available.
❑ Provide accurate information to the public concerning the incident.
❑ Provide guidance and assistance at evacuation centre(s).
❑ Provide health related information about toxic chemicals and by-products.
❑ Provide guidance on public health advisories, public evacuation and sheltering.
❑ Provide guidance on rescinding a declaration of public evacuation and on allowing re-occupancy.
❑ Investigate health complaints from the public.
❑ Provide advice to the government GEOC and to the REOC on existing or potential health effects associated with the incident where possible.
❑ Provide health advice and safety levels for any health or special care facilities and for other persons that are likely to be sensitive from the impact as a result of the incident.
❑ Ensure local hospitals are alerted when there is potential for an impact from a release.
❑ Coordinate the provision of medical services during an emergency.
❑ Where appropriate and necessary, can declare a Local State of Public Health Emergency.
❑ When possible work with all other responders to establish a single Regional Emergency Operations Centre (REOC).

After the Incident

❑ Compile and maintain health related records and logs.
❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
❑ Participate, where possible, in event debriefings.
❑ Complete incident related reports.
❑ Provide guidance on assessing and mitigating public health risks due to any residual environmental contamination following an event.

Supporting Agency Roles

	Before the Incident	During the Incident	After the Incident

Common Tasks	❑ All departments/agencies should participate in training and exercises for this plan and the Energy Resources Industry Emergency Support Plan (ERIESP).
	❑ This plan will be reviewed as required.
	❑ A join multi-department/agency exercise will be held as required.
		❑ The AER may activate the ERIESP based on the following criteria:
		 ❑ Level 2 or 3 emergencies (as defined by the AER)
		 ❑ Any level of emergency:
		  ❑ requires coordination of multi-agency response;
		  ❑ requires coordination of information and communication between departments/agencies and/or has significant provincial/national media interest.
		❑ Elevations of the POC will be escalated by AEMA. Once the elevations level of the POC has been escalated, provincial-level emergency control will be coordinated by AEMA under the leadership of the lead agency.
		❑ The AER will develop emergency objectives to guide the GoA response and support to duty holders and local authorities. AEMA will assist the AER by providing leadership and strategic policy direction for the GoA as per the *Government Emergency Management Regulation (AR 248/2007)*.
		❑ GoA emergency management assistance will be provided to the local authority as requested and as long as is required by the local authority.
			❑ Complete a Post Incident Assessment (PIA) based on the scope of their involvement and the outcome.
			❑ Integrate PIA into internal response processes.
			❑ All departments/agencies will participate in a joint PIA to be coordinated by AER. Participation from each department/agency will be determined by the response to the emergency.
			❑ Reports required by other regulatory authorities must be completed and delivered to the appropriate regulatory body within the time lines they prescribe.

*OHS	❑ Maintain and provide resources to support 24\7 employer reporting of incidents to OHS. ❑ Maintain capacity for OHS attendance to a work site when warranted. ❑ Maintain a formal Incident Management Program is in place to ensure compliance to OHS requirement to reporting, investigation, risk management, and monitoring.	❑ Ensure appropriate response and management of the scene is conducted: ❑ Ensure appropriate medical response is initiated and emergency response is contacted. ❑ Ensure safety of those on-site. ❑ Ensure security and integrity of the incident site is maintained. ❑ Inspect the work activities and processes to ensure legislative standards are being met by all work site parties. (Attendance to be determined by Occupational Health and Safety management.) ❑ Ensure the appropriate provincial/territorial agencies are notified, where required.	❑ Ensure work site parties have implemented appropriate controls prior to re-entry by workers. ❑ Investigate the incident if the incident is a reportable incident in line with current Alberta OHS Legislation. ❑ Ensure internal investigation has been conducted and that identified corrective actions have been minimized to reduce recurrence of similar incidents. ❑ Ensure outcomes and corrective actions are communicated to workers. ❑ Ensure health and safety committee or health and safety representative as defined by OHS legislation has been involved in internal investigations.
*AAI	❑ Act as subject matter expert (SME) relating to agriculture and livestock impacts. ❑ Act as the liaison between farming/ranching community and the Government of Alberta (GoA). ❑ Maintain emergency response resources.	❑ Act as SME relating to agriculture and livestock impacts. ❑ Act as the liaison between farming/ranching community and GoA during energy resources industry emergencies. ❑ Provide information relating to agricultural and livestock impacts to the GoA during energy resources industry emergencies.	❑ Conduct agriculture and livestock impact assessments. ❑ Implement response activities as required.
*AFPT	❑ Maintain 24/7 contact numbers and duty officer where resources can be accessed for emergency response. ❑ Maintain emergency response resources. ❑ Act as subject matter expert (SME).	❑ Notify forestry staff in the area of the emergency. ❑ Forest Areas Wildfire Coordination Centres will notify duty holder if energy resources industry infrastructure is threatened by wildfire, where practical and in order of priority. Priority contact will be through the contact information indicated in the company's Industrial Wildfire Control Plan for the identified locations. Can fight wildfires started as the result of the energy resources industry product release. ❑ Alberta Wildfire is responsible for managing all wildfires within the Forest Protection Area. Will suppress wildfires caused from industry operations when industry has appropriately shut-in the operation and notified Alberta wildfire to ensure the safety of first responders.	❑ Conduct forest impact assessment. (if applicable)
*ATEC	❑ Maintain a 24/7 call centre (EDGE - Environmental and Dangerous Goods Emergencies) to receive emergency calls related to the transportation and handling of dangerous goods as well as environmental spills/releases/incidents, and AER emergency notifications. ❑ Act as SME for dangerous goods incidents.	❑ Handle inter-departmental communication as needed during energy resources industry emergencies. ❑ Maintain ability to process calls for new emergencies. ❑ Provide information on the impacts to transportation routes. ❑ Provide response support if dangerous goods are released.	❑ Provide a summary of transportation impacts during the PIA process. (if applicable)
*CPE	❑ Maintain a team of trained Communications and Public Engagement personnel. ❑ Activate crisis communications plan and crisis communications response.	❑ Confirm distribution of AER messaging. Provide support as required.	❑ Participate in all PIAs related to the ERIESP. ❑ Coordinate key messaging with the AER.
Alberta Justice	❑ Maintain the list of Critical Infrastructure and key assets in the Province of Alberta. ❑ Maintain and regularly test the Emergency Notification System. ❑ Maintain awareness of threats, vulnerabilities, and risks related to human induced intentional hazards.	❑ Provide intelligence and threat risk assessments when appropriate and when requested, in relation to critical infrastructure and key assets. ❑ Communicate with owners and operators of critical infrastructure and key assets, through normal communication channels, or if necessary through the Emergency Notification System maintained by ASSIST.	❑ Participate in all PIAs related to the ERIESP. ❑ Communicate with owners and operators of critical infrastructure and key assets, through normal communication channels, or if necessary through the Emergency Notification System maintained by ASSIST.

*OHS - Occupational Health & Safety   *AAI - Alberta Agriculture & Irrigation   *AFPT – Alberta Forestry, Parks and Tourism   *ATEC – Alberta Transportation and Economic Corridors   *CPE – Communications and Public Engagement   Revised January 2023

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Supporting Agency Roles

	Before the Incident	During the Incident	After the Incident
*EPA	❑ Maintain 24 hour emergency contact numbers and duty officer where resources can be accessed for a response related to this plan. ❑ Maintain emergency response resources. ❑ Maintain a specialty air monitoring team and equipment used to oversee and verify air monitoring during incident response. ❑ Act as SME. ❑ Prepare to act as lead agency when appropriate.	❑ Ensure that non-energy industry resources environmental impacts are mitigated. ❑ Provide expertise to mitigate the impacts of non-energy resources industry liquid releases on land and into watercourses. ❑ Provide technical assistance related to emergency drinking water supply engineering. ❑ Notify Fish and Wildlife staff in the area of the emergency.	❑ Compile and maintain environment/emergency related records ❑ Monitor environmental recovery, when required.

*WCB	The Workers' Compensation Board is a statutory corporation created by government under the Workers' Compensation Act to administer a system of workplace insurance for the workers and employers of the province of Alberta.
	
	❑ WCB has the overall responsibility for the administration of the workers' compensation system in Alberta.
	❑ Be a neutral and autonomous administrator of the worker's compensation system.
	❑ Strive to balance the interests of workers and employers.
	❑ Delivery of workers' compensation services to the workers and employers of Alberta.
	❑ Make decisions based on evidence, law and policy and fair, impartial and transparent processes.
	❑ Encourage safer workplaces and promote disability management.
		Employer must report to WCB within 72 hours of being notified of an injury/illness that results in or will likely result in:
		  ❑ Lost time or the need to temporarily or permanently modify work beyond the date of accident
		  ❑ Death or permanent disability (amputation, hearing loss, etc.)
		  ❑ A disabling or potentially disabling condition caused by occupational exposure or activity (poisoning, infection, respiratory disease, dermatitis, etc.)
		  ❑ The need for medical treatment beyond first aid (assessment by a physician or chiropractor, physiotherapy, etc.)
		  ❑ Medical aid expenses (dental treatment, eyeglass repair/replacement, prescription medications, etc.)
		
		Note: Immediately report fatalities and serious injuries to the OHS Contact Centre 1-866-415-8690.
		
		❑ Determines whether the injury or illness is caused by work.
		❑ Responds to all client inquiries forwarded by the Minister and all other elected officials.
			❑ Compensates injured workers for lost income, health care and other costs related to a work-related injury.
			❑ Safely restores injured workers through return-to-work services to a level of competitive employability.
			❑ Take reasonable measures to maintain a reasonable quality of life for severely injured workers through the provision of services allowed by legislation and policy.

*ABSA	❑ Review, accept and register pressure equipment designs and construction procedures that relate to pressure equipment. ❑ Issue certificate of inspection permits for pressure equipment before the equipment is placed into service. ❑ Ensure that regular inspections of in-service pressure equipment are conducted. ❑ Keep records for pressure equipment that has been registered for use, or manufactured, in Alberta. ❑ Examine, certify and register Pressure Welders and Welding Examiners, Power Engineers, and Pressure Equipment Inspectors. ❑ Authorize and monitor, through quality management systems, organizations that have been permitted to conduct some of the activities subject to the regulations. ❑ Conduct safety education and training.	❑ Receive notification of an incident. ❑ As required under the *Pressure Equipment Safety Regulation* Section 35, the accident scene **must not be disturbed** (except when it is absolutely necessary to prevent death or injury, or to prevent further property damage) **unless** approval to do so has been given by an ABSA Safety Codes Officer.	❑ Investigate accidents or unsafe conditions that involve pressure equipment. May: ❑ close all or part of the accident site for 48 hours (or longer if authorized by a Justice) ❑ prohibit any person from entering the site for safety reasons or to preserve evidence ❑ be accompanied by any person for assistance ❑ inspect and photograph any thing ❑ require any person to make full disclosure ❑ require closure or disconnection of any thing ❑ require to be performed any tests or evaluations ❑ remove evidence ❑ require production of documents

	Before the Incident	**During the Incident**	**After the Incident**
*MECCS	□ Provide regulatory oversight and monitor the situation to ensure that the Responsible Party (RP) is taking appropriate actions. **Can liaise with Ministry of Forests to provide:** □ Species and ecosystem protection policy. □ Water protection and sustainability policy. □ Conservation and resource management enforcement.	Before, during and after an emergency the Ministry could be called upon to provide expertise, technical advice and/or policy direction regarding: □ Environmental emergency response (including hazardous materials) □ Air, land and water quality standards □ Pollution prevention and waste management □ Water and air monitoring and reporting □ Environmental assessment □ Environmental monitoring □ Parks, wilderness and protected areas. □ Provide regulatory oversight and monitor the situation to ensure that the Responsible Party (RP) is taking appropriate actions. □ May provide a representative to the Incident Command Centre, the Off-Site Command EOC and the BCER Emergency Operations Centre (EOC) and / or the Provincial Emergency Operations Centre (PREOC) on a 24-hour basis. □ In a larger scale incident, based on risk, additional ministry resources such as IMTs (Incident Management Teams) may be deployed to establish unified command and monitor, augment, or take over the response if the RP fails to take appropriate action as deemed necessary by the EERO or Provincial Incident Commander. □ May assist the RP to ensure that other required agencies and affected stakeholders are contacted. □ May provide assistance with hazardous waste management. □ May conduct sampling for monitoring and enforcement purposes.	
Ministry of Forests	□ Five key agencies are housed within the Ministry of Forests: Wildfire Management Branch, Dam Safety, Flood Safety, GeoBC and the River Forecast Centre. □ Develop, deliver and promote innovative and effective wildfire management practices to clients. □ Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans. □ The Ministry of Forests is identified to provide personnel, equipment, supplies, telecommunications equipment, aviation support and weather information to assist in emergency response operations. □ The Ministry of Forests is the designated key agency for wildfires.	Before, during and after an emergency the Ministry of Forests could be called upon to provide expertise, technical advice and/ or policy direction regarding: □ Forest stewardship policy □ Land use planning □ Water use planning and authorizations □ Drought management □ Dam and dike safety and regulation □ Flood plain management □ GeoBC and information management □ Pests, disease, invasive plants and species □ Wildfire management	□ Participate in event debriefings. □ Complete a "lessons-learned" process based on the scope of their involvement and the outcome.
* MOTI	□ Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans. □ In the event of an emergency, the Highway Department's Operations, Maintenance and Re-construction team plays an important role to ensure the public is safe and transportation routes are available for accessing emergency services. □ Ministry of Transportation and Infrastructure oversees provincial highways identified as emergency response routes - a network of pre-identified routes that can best move emergency services and supplies to where they are needed in response to a major disaster. □ Disaster Response Routes (DRRs) are a critical part of the overall emergency transportation system. □ Responsible for the construction, maintenance and operation of public roads.	Before, during and after an emergency the Ministry of Transportation and Infrastructure (MoTI) could be called upon to provide expertise, technical advice and/or policy direction regarding: □ Highway construction and maintenance □ Safety and protection of provincial road and bridge infrastructure □ Transportation planning and policy □ MoTI can: □ Authorize the closure of provincial transportation routes, including highways and inland ferries, where the safety of the public is at risk. □ Assist in public notification through the DriveBC website, as well as posting advisories on overhead message boards along designated routes. □ Coordinate and arrange for transportation, engineering and construction resources. □ Rebuild and restore provincial highways that are impacted by an emergency.	□ Work with appropriate local and federal entities to facilitate the restoration of roadways and utilities.
*PSPC	The Roles & Responsibilities listed below for Public Services and Procurement Canada (PSPC) are only in relation to the Alaska Highway (97) in British Columbia, north of mile 83.5 (km 133) to the border of British Columbia and Yukon Territories at km 968. In conjunction with the BC Ministry of Transportation & Infrastructure (MOTI) and the provincial maintenance contractor, PSPC may: □ Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans. □ Hold responsibility for the acquisition of contracts for the maintenance and operation of the Alaska Highway. □ Oversee Alaska Highway response routes - a network of pre-identified routes that can best move emergency services and supplies to where they are needed in response to a major disaster.	In conjunction with the BC Ministry of Transportation & Infrastructure (MOTI), PSPC, and the provincial maintenance contractor may be called upon to: □ Provide expertise, technical advice and/or policy direction regarding: □ Highway construction and maintenance □ Safety and protection of provincial road and bridge infrastructure □ Transportation planning and policy □ Play an important role to ensure the public is safe and transportation routes are available for accessing emergency services. □ Assist in the coordination of roadblock locations along the highway. □ Authorize closure of the Alaska Highway where the safety of the public is at risk. □ Assist in public notification of an emergency through the MOTIs DriveBC website, as well as posting advisories on overhead message boards along designated routes. □ Coordinate and arrange for transportation, engineering and construction resources. □ Handle inter-departmental communication as needed during energy resources industry emergencies. □ Maintain ability to process calls for new emergencies. □ Provide information on the impacts to transportation routes. □ Provide response support if dangerous goods are released.	□ Work with appropriate local and federal entities to facilitate the restoration and re-opening of the Alaska Highway. □ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. □ Provide a summary of transportation impacts during the post incident review process. □ Participate in multi-agency debriefings.
Technical Safety BC	□ Technical Safety BC (formerly BC Safety Authority) is an independent, self-funded organization mandated to oversee the safe installation and operation of technical systems and equipment across the province. □ In addition to issuing permits, licenses and certificates, we work with industry to reduce safety risks through assessment, education and outreach, enforcement, and research.	□ Technical Safety BC implements a business continuity plan in the event of a natural disaster. This plan ensures that Technical Safety BC resumes safety services as soon as possible. □ Though Technical Safety BC is not a first responder, they will provide technical support including inspection services to the recovery team relating to the technical equipment and systems covered by the Safety Standards Act (e.g., gas, electrical, elevating devices, boiler and pressure vessel technologies) after first ensuring the safety of its employees. □ Starting in the planning phase and through collaboration with other agencies, Technical Safety BC can provide most value to the public and best support the other agencies.	□ Technical Safety BC tracks and investigates incidents and hazards that are reported to inform awareness and prevention initiatives □ Technical Safety BC does not investigate all reported incidents and may not follow-up with a notification unless there is an intention to investigate. □ Technical Safety BC will contact duty holders within 24 hours of the next regular business day following the report of an incident if more information is required or an investigation is planned to occur.

Supporting Agency Roles

*PSPC - Public Services and Procurement Canada   *MOTI - Ministry of Transportation and Infrastructure   *MECCS - Ministry of Environment and Climate Change Strategy   Revised March 2023

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BRITISH COLUMBIA
The Best Place on Earth

Supporting Agency Roles

Ministry of Health

Before the Incident

- Provide public health measures, including epidemic control and immunization programs.
- Provide and coordinate ambulance services and triage, treatment, transportation and care of casualties.
- Provide the continuity of care for patients evacuated from hospitals or other health institutions and for medically dependent patients from other care facilities.
- Provide standard medical units consisting of emergency hospitals, advanced treatment centres, casualty collection units and blood donor packs.
- Monitor potable water supplies.
- Inspect and regulate food quality with the assistance of the Minister of Agriculture.
- Provide critical incident stress debriefing and counselling services.
- Provide support services for physically challenged or medically disabled people affected by an emergency.
- Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans.
- Provide input on public health issues related to a petroleum incident.

During the Incident

Before, during and after an emergency the Ministry of Health could be called upon to provide expertise, technical advice and/or policy direction regarding:
- Health service delivery
- Public health planning and response
- Community and home support services
- Mental health
- Communicable disease prevention
- During an emergency the Ministry of Health will provide the continuity of care both for patients evacuated from hospitals or other health institutions and for medically dependent patients from other care facilities; The Ministry will also provide emergency psychosocial services.
- Ensure appropriate Health entities have been notified of the incident.
- Ensure appropriate Executive and Public Health personnel have been notified of the incident.
- Carry out evacuation of medically dependent and vulnerable populations, as needed.
- Transport incident casualties as required.
- Triage and provide medical care to incident casualties as required.
- Decontaminate incident casualties that present to health care facilities, as needed.
- Relay health hazard information to the public.
- Monitor water and air quality, as it relates to public health.
- Coordinate the public health response to the incident.
- Address the psychosocial aspects of the aftermath of an event.
- Arrange with Health Canada and the Public Health Agency of Canada for federal support, if needed.

After the Incident

- Participate in event debriefings.
- Complete a "lessons-learned" process based on the scope of their involvement and the outcome.
- Continue with public health and environmental health monitoring as required.
- Continue to address the psychosocial aspects of recovery.

WorkSafeBC

Before the Incident

WorkSafeBC is the BC Health and Safety Regulator. In addition to providing a no-fault insurance system and providing when work-related injuries or diseases occur compensation and support to workers in their recovery, rehabilitation, and safe return to work; WorkSafeBC assists workers in creating and maintaining healthy and safe work workplaces, with Proactive roles which include:
- Providing health and safety information to employers, workers, and the public
- Establishing standards and guidelines for occupational health and safety
- Educating employers, supervisors, and workers on prevention of work-related injury and illness.
- Conducting work site inspections to help employers comply with health and safety regulations.
- Collaborating with provincial and federal agencies and ministries on matters of occupational health and safety
- Providing access to prevention resources for workers and employers

During the Incident

As required by the Workers Compensation Act (WCA Sec 68) **Employers must immediately report the following types of incidents** to WorkSafeBC at 1-888-621-7233 (whether there is an injury or not):
- Any incident that kills or seriously injures a worker
- A major leak or release of a dangerous substance
- A major structural failure or collapse of a structure, equipment, construction support system, or excavation
- A fire or explosion that had a potential for causing serious injury to a worker
- Any blasting accident that results in injury, or unusual event involving explosives (required by regulation)
- A diving incident that causes death, injury, or decompression sickness requiring treatment (required by regulation)

This requirement is in addition to the requirement of reporting workplace injuries or disease for claims purposes.

After the Incident

Prompt investigation of incidents must be conducted to identify causation and prevent recurrence. The WCA (sec 69) requires preliminary investigations to be conducted within 48 hours and full investigations completed within 30 days of the following types of incidents:
- is required to be reported under section 68 (specified above),
- resulted in injury to a worker requiring medical treatment,
- did not involve injury to a worker, or involved only minor injury not requiring medical treatment, but had a potential for causing serious injury to a worker, or
- was an incident required by regulation to be investigated.

The investigation process must be carried out by persons knowledgeable about the type of work involved and, if they are reasonably available, with the participation of the employer or a representative of the employer and a worker representative. Full investigations must be submitted to WorkSafeBC.

Ministry of Agriculture and Food

Before the Incident

Emergency management support roles for all hazards (upon request of Local Authority, First Nation, EMCR, or other requesting agency):
- Provide advice to farmers, aqua-culturalists and fishers on the protection of crops, livestock and provincially managed fish and marine plant stocks.
- Coordinate the emergency evacuation and care of poultry and livestock.
- Inspect and regulate food quality.
- Identify food and potable water supplies.
- Assist the Minster of Health in the inspection and regulation of food safety.

During the Incident

The designated lead provincial ministry for planning and response before, during and after an emergency for:
- Diseases and epidemics as specified below:
  - Animal diseases
  - Plant diseases
  - Pest infestations

HEMBC North

Before the Incident

Health Emergency Management BC (HEMBC) is a program under the Provincial Health Services Authority (PHSA). HEMBC provides the expertise, education, tools, and support specifically for the BC Health Sector to effectively mitigate, prepare for, respond to, and recover from the impacts of emergency events; ensuring the continuity of health services. There is a HEMBC team in each BC health authority. HEMBC-North deals specifically with Northern Health.
- Maintain a 24-hour emergency/on call contact number for notification and activation of the health system in Northern BC.

During the Incident

- For emergency events that require immediate connection with Northern Health, please call HEMBC on call (24/7) - **855-554-3622.** HEMBC will notify / activate the appropriate Northern Health programs (ie. Public Health, Acute Care etc.) based on the nature of the event / emergency. Please include this number in industry ERPs for the use of permit holders in contacting Northern Health on an emergency basis.
- Notify/activate the appropriate Northern Health programs (i.e. Public Health, Acute Care, etc.) based on the nature of the incident/emergency event.

Supporting Agency Roles

	Before the Incident	During the Incident	After the Incident
Ministry Labour Relations & Workplace safety	❑ This ministry works with employers and employees, as well as industry stakeholders to reduce and eliminate workplace injuries and create a safe work environment. ❑ Maintain 24 hour emergency contact number where resources can be accessed for reporting of serious injury or fatality.	❑ Dispatches representatives, when deemed appropriated, to evaluate and enforce compliance of regulations under provincial and territorial jurisdiction. ❑ Ensure that the company is monitoring the health and safety of all contractors and other workers who are not under the Canada Labour Code Jurisdiction.	❑ Will inspect and review the events of serious injuries or death to workers under provincial and territorial jurisdiction to ensure compliance with the provincial OHS legislation.

Ministry Highways	❑ Ministry of Highways manages Saskatchewan's network of highways and infrastructure.
	❑ Manages Saskatchewan's Highway Hotline, ensuring Saskatchewan people, the trucking industry, and visitors have information on highway construction, road closures, and road conditions.
	❑ Maintain 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans.
	
	Transportation Programs & Services
	❑ Manages Saskatchewan's regulated railway infrastructure, *The Railway Act* and reviews and authorizes construction/opening of provincially regulated railway.
	❑ Maintains emergency contact information (Provincial Railway Inspector).
	❑ May inspect all or any part of a railway and provide written report where the minister:
	   ❑ Receives a complaint about the state of repair of any part of a railway.
	   ❑ For any reason an inspection of a railway is necessary.
	❑ May conduct audits of the facility and rail operations to ensure compliance with provincial regulations
		❑ Provide authorization and assistance for establishing emergency roadblocks with company officials, local authorities and the RCMP.
		❑ Provide assistance with the closure of provincial highways and the establishment of suitable detour routes.
		❑ Provide advice and assistance with procurement of roadblock equipment.
		
		Transportation Programs & Services
		❑ Provide authorization and assistance for the cancellation of services and closure of provincial railway infrastructure.
		❑ Investigate incidents and can issue orders to rectify any deficiencies to bring provincially regulated railway into compliance.
			❑ Work with appropriate local and federal entities to facilitate the restoration of roadways and utilities.
			
			Transportation Programs & Services
			❑ Accidents and incidents will be investigated as required by Rail Services pursuant to Section 32 of *The Railway Act*. Accident/Incidents must be reported following the provincial guideline PRG 1006.
			❑ Work with appropriate local and federal entities to facilitate the restoration of provincial railway infrastructure.

Ministry of Health	The Ministry of Health (MoH) and the Saskatchewan Health Authority (SHA) have interdependent roles and responsibilities. Both are involved in meeting expectations in relation to the following key areas: ❑ Strategic planning ❑ Fiscal management and reporting ❑ Relationships ❑ Quality management ❑ Monitoring, evaluation and reporting ❑ Management and performance	❑ Provide an effective and timely response to major health events, emergencies and disasters regardless of their cause. ❑ Provide timely health information including warnings, health risks, prevention and other information to the public, media and stakeholders. ❑ Ensuring continuity of healthcare services thereby maximizing health outcomes in the Province of Saskatchewan in the event of an emergency or disaster, including ensuring that essential laboratory services are maintained. ❑ Liaise with other ministries, provincial, federal, international government agencies and community-based organizations, including provision of resources and subject matter experts, depending on the nature of the emergency. ❑ Provide direct delivery of services and supplies, depending on nature of the emergency. ❑ Establish and advise on health and safety levels for the escaping of contaminant and remedial measures. ❑ Consult with applicable environmental protection agencies to provide advice on existing and potential health effects of the incident.	❑ The MoH and SHA conduct After Action review operations and lessons learned to enhance emergency preparedness and response plans for future incidents. ❑ Ensure appropriate data is collected to monitor the health effects of the incident. ❑ Recommend further investigation or research after the event is warranted.
Technical Safety Authority	❑ Review, accept and register pressure equipment designs and construction procedures that relate to pressure equipment. ❑ Issue certificate of inspection permits for pressure equipment before the equipment is placed into service. ❑ Ensure that regular inspections of in-service pressure equipment are conducted. ❑ Keep records for pressure equipment that has been registered for use, or manufactured, in Saskatchewan. ❑ Examine, certify and register Pressure Welders and Welding Examiners, Power Engineers, and Pressure Equipment Inspectors. ❑ Conduct safety education and training.	❑ Receive notification of an incident involving a Boiler, Pressure Vessel, Elevator or Amusement Ride in Saskatchewan.	❑ Investigate accidents or unsafe conditions that involve boilers or pressure equipment.
SaskPower Electrical Safety	❑ SaskPower generates safe, reliable and sustainable power for the people of Saskatchewan. ❑ SaskPower is the principal electric utility in Saskatchewan, Canada.	❑ SaskPower would disconnect electrical services for residents that would be affected by flooding to ensure safety.	❑ SaskPower would be present in mobile command posts to assist residents with the safe restoration of electricity as quickly as possible.
SaskEnergy	❑ SaskEnergy delivers the benefits of safe, convenient and environmentally friendly natural gas to nearly 400,000 residential, farm, commercial and industrial customers throughout Saskatchewan. ❑ Purchase natural gas from independent suppliers and transport it through our over 15,000 kilometres of transmission pipelines and more than 71,000 kilometres of distribution lines to serve 93% of Saskatchewan communities.	❑ SaskEnergy would determine the appropriate course of action depending on the type and extent of emergency at the time, which in some cases may result in loss of natural gas service.	❑ If required, customers are to arrange with SaskEnergy to have natural gas service turned back on.

Saskatchewan!

H2Safety

Supporting Agency Roles

Workers' Compensation Board

Before the Incident

The WCB is the provincial agency that delivers workplace insurance to Saskatchewan employers and benefits to Saskatchewan workers when they are hurt at work.

The *Workers' Compensation Act, 2013,* together with the General Regulations and Exclusions, make up the laws under which the Saskatchewan Workers' Compensations Board operates.

❑ Provide registered employers with workplace insurance coverage.
❑ Assess fair premiums.
❑ Educate employers and workers about injury prevention through WorkSafe Saskatchewan and the WCB's Prevention department.
❑ Help employers develop and implement safety and prevention programs.
❑ Support research to prevent and reduce injuries and occupational diseases.

During the Incident

Employer must contact the WCB within 5 days after the date on which they've become aware of an injury that prevents a worker from earning full wages or that necessitates medical aid. The employer shall notify the board in writing of:
❑ The nature, cause and circumstances of the injury.
❑ The time of the injury.
❑ The name and address of the injured worker.
❑ The place where the injury happened.
❑ The name and address of any physician who attends the worker for his or her injury.
❑ Any further particulars of the injury or claim for compensation that the board may require.

After the Incident

❑ Determine and provide WCB benefits to injured workers.
❑ Provide case management services to facilitate health care and monitor workers' recovery and return to work.
❑ Help employers and workers develop and implement workplace return-to-work programs and individual return-to-work plans to accommodate injured workers, as required by law.
❑ Coordinate vocational services to injured workers if required.
❑ Interview any person who they believe can provide information about a work related fatality, serious injury or allegation of harassment.

Ministry of Agriculture

Before the Incident

An agricultural industry emergency will be defined according to the following:
❑ There is an imminent threat to livestock, public safety, personal property, the food chain or the environment.
❑ There is irrevocable harm.
❑ An epidemic with the potential to spread.
❑ When the cost of stopping the event is less than the cost of not doing anything.
❑ Incursion of a foreign or emerging animal disease that can be of economic or public health significance or acts of bio or agro terrorism.

During the Incident

❑ Provides advice and assistance in relation to agricultural matters.
❑ Provides veterinary guidance.
❑ Provides plant and animal health advice.
❑ Arranges emergency evacuation and rescue.
❑ Coordinates livestock feeding services in the event of an emergency.
❑ Operates under the Terrestrial Animal Disease Emergency Support (TADES), in coordination with federal agencies.

After the Incident

❑ The EPO will initiate a debriefing of any emergency situations.
❑ Updating and approval will occur in the following circumstances:
  ❑ Update the plan after a debriefing.
  ❑ Update the plan after a test of the plan.
  ❑ Update the appendices once a year.
  ❑ Update the plan at least once a year.
  ❑ EPO will initiate any plan reviews.
  ❑ Ministry Emergency Management Team updates the plan.
  ❑ Deputy Minister communicates the plan to staff through the directors.
  ❑ EPO to communicate plan to Emergency Management & Fire Safety.
  ❑ Plan posted on the Ministry's website (without the phone numbers of staff).

	Before the Incident	During the Incident	After the Incident

*Office of the Fire Commissioner	❑ Promote methods of fire prevention and public safety.
	❑ Collect and disseminate information and statistics about fires.
	❑ Give advice and assistance to local authorities about emergency response and fire protection services, including training of persons who provide those services.
	   ❑ Equipment and adequate water supply for emergency response and fire protection services, and
	   ❑ By-laws and agreements respecting emergency response and
	❑ Provide critical incident stress management for emergency response personnel and provide and coordinate resources used for search and rescue.
	❑ Establish an incident management system for directing and managing emergency response services at the site of an emergency or disaster.
	❑ Issue directives about how to dispose of combustibles and explosive materials or other things that may constitute a fire menace.
	❑ Provides emergency response services on behalf of the province of Manitoba.
		❑ Monitors emergency incidents throughout the province.
		❑ The Fire Commissioner has the authority to exercise certain powers at the scene of an emergency or disaster if deemed necessary to meet the needs of the emergency and to eliminate or reduce its effect.
		❑ Order the evacuation of land or premises, and / or calling on peace officers or a police force to assist with an evacuation.
		❑ Provide an Incident Commander during the response phase of an emergency if it has been determined that an adequate Incident Command system may not be in place at a particular site or location.
		❑ Provide on-site technical advice and / or assistance to municipal fire services.
		❑ Provide and coordinate rescue activities and resources during a provincial emergency.
		❑ Provide assistance to fire Mutual Aid Coordinators respecting municipal fire services emergency response.
		❑ Provide logistical support to the RCMP for provincial ground search and rescue and clandestine drug operations.
		❑ Provide building / structure safety inspection services.
		❑ Coordinate and / or provide fire protection for communities during Department of Conservation Fire Program forest fires.
		❑ Coordinate the Provincial Volunteer Ground Search and Rescue (GSAR) network.
		❑ Operate the Provincial Urban Search and Rescue (USAR)
		❑ Coordinate 3 Hazardous Materials Technician response teams (CBRN):
		   ❑ Chemical, Biological, and Radiological & Nuclear
			❑ Fire investigators work closely with law enforcement to determine the cause and origin of every fire in Manitoba.
			❑ Information gathered at the fire scene is compiled and used to design fire and life safety programs for target groups and to reduce fire loss across Manitoba.
			❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
			❑ Participate in multi-agency debriefings.

Manitoba Environment, Climate and Parks	❑ When necessary, specialized expertise from any of the Department's program areas may be called out to assist in the response to an environmental accident. The response team has access to all of the resources of the provincial government and, through agreement, the resources of the federal government as well. ❑ The Manitoba Emergency Plan identifies Manitoba Environment, Climate and Parks as the lead provincial agency for dangerous goods incidents. ❑ Provide advice and assistance in waste disposal.	**General** ❑ Provide support to regulatory enforcement services. ❑ Provide supplementary emergency radio communication. ❑ Provide specialized transportation equipment and operations, e.g., ATVs, snowmobiles, boats and bombardiers. ❑ Assist in acquiring helicopter / aircraft resources. ❑ Assist the Office of the Fire Commissioner in search and rescue operations. ❑ Administer public access and egress systems within the flood plain and community rink dikes, in cooperation with Transportation and Infrastructure, Water Stewardship, and Justice. ❑ Provide other regional resource, staff, equipment, and infrastructure in support of emergency operations. **Fire** ❑ Direct forest fire operations. ❑ Provide forest fire fighting equipment. ❑ Provide technical advice and assistance to other departments and local authorities about forest fire operations. **Environmental Emergency Response Program** ❑ Operates within the mandates of *The Dangerous Goods Handling and Transportation Act* and *The Environment Act.* This Act gives Environment Officers and Inspectors special powers in emergencies to enter any land or building, control and clean up releases and take any emergency actions required to protect persons, property and the environment. ❑ The Emergency Response Team responds to releases or potential releases of contaminants that may have a detrimental effect on the physical environment or public health. ❑ Direct the on-site response to environmental accidents. ❑ Oversee operations for contaminant monitoring and analysis. ❑ Direct environmental accident spill control, clean-up operations, and disposal arrangements. ❑ Arrange for the provision of technical personnel and equipment resources in support of law enforcement for dealing with Clandestine Drug Labs and as part of the provincial Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) Response Team. ❑ Provide technical environmental advice to local authorities, departments, and agencies. ❑ Provide advice on public protection measures (evacuation, shelter-in-place and reentry). ❑ Provide support to the Department of Water Stewardship - Office of Drinking Water by undertaking initial sampling, testing and assessment at the emergency site. ❑ Provide assistance in monitoring discharges and ensuring appropriate mitigation and response actions are taken to reduce the impact of liquid releases for land based spills and to ensure watercourses are protected. **Water Stewardship** ❑ Coordinate, plan, and direct flood control operations. ❑ Plan collection of aerial photography and other aerial imagery. ❑ Plan ice jam mitigation program, and deploy ice jam mitigation equipment. ❑ Provide flood forecasting and monitoring services. ❑ Provide public information on flood forecasts, regulation of water control structures, and flood-related activities. ❑ Coordinate and provide provincial direction for the operation of flood control works (e.g. Red River Floodway, Portage Diversion). ❑ Administer public access and egress system within the flood plain and community ring dikes, in cooperation with the Departments of Conservation, Transportation and Infrastructure, and Justice. ❑ Coordinate with Transportation and Infrastructure in the distribution of sandbags, sandbagging equipment, and water barriers. ❑ Coordinate with Transportation and Infrastructure in the provision of engineering and technical advice and assistance to municipalities concerning flood protection measures. ❑ Provide advice to municipalities and Departments of Conservation, Transportation and Infrastructure on the most efficient and effective use of flood fighting resources. ❑ Provide permission to cut roads and create water diversions.	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ❑ Participate in multi-agency debriefings. **Environmental Emergency Response Program** ❑ Participate in the evaluation of the incident and the potential area at risk from product releases.
Manitoba Health	❑ Manitoba Public Health aims to provide the leadership and coordination for an integrated approach to public health programs and services. ❑ The core functions of public health are population health assessment, health surveillance, disease, injury prevention, health promotion and health protection. ❑ To focus on the prevention and control of diseases and the promotion of health. ❑ Liaise, collaborate and coordinate on health-related matters with all federal and provincial agencies. ❑ Ensure continuity of care at health care organizations providing health services that are the responsibility of Manitoba Health.	❑ Monitor and support Regional Health Authority (RHA) and health care organization emergency / disaster management activities. ❑ Evaluate the risk of negative health outcomes to the public. ❑ Provide information, advice and guidance to the public on health-related issues. ❑ Contribute health-related information to other sectors, organizations, and agencies. ❑ Secure, coordinate, and distribute necessary medical resources (e.g. human resources, supplies, vaccines, etc.) to support RHAs and health care organizations in response to the requirements of an emergency / disaster. ❑ Coordinate air ambulance evacuations (i.e. Lifeflight and basic air ambulance carriers) and ground medical evacuations. ❑ Coordinate the deployment of National Emergency Stockpile System (NESS) resources in Manitoba. ❑ Ensure the provision of institutional and community-based (public) health services in response to community needs during and immediately after an emergency / disaster. ❑ Support RHAs and health care organizations in the coordination of evacuations of health care facilities as required. ❑ Assign liaison officers and / or on-site response personnel to support RHAs and health care organizations as required.	❑ Assist with the investigation of incidents that result in serious injuries or death to workers under provincial and territorial jurisdiction. ❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ❑ Participate in multi-agency debriefings.

Supporting Agency Roles

	Before the Incident	During the Incident	After the Incident
Manitoba Transportation and Infrastructure	❑ Development of transportation policy and legislation, and for the management of the province's vast infrastructure network. ❑ Responsibilities include corporate policy and provincial legislation development, motor carrier safety and regulation enforcement, carrier permits and the development and implementation of sustainable transportation initiatives. ❑ Delivery of several transportation and infrastructure-related services or programs such as air ambulance flights, water bomber operations, property management, procurement, material distribution, fleet vehicles, Crown Lands stewardship, mail management, and government building security across the province. **Engineering & Operations Division** ❑ Provide a 24/7 highway information call centre and web page. ❑ Construct and maintain provincial roads, bridges, airports and water control infrastructures. ❑ Plan, direct, and coordinate all highway traffic functions. ❑ Plan, direct, and coordinate the use of northern airports and provincial resources. ❑ Coordinate with the Department of Water Stewardship in the provision of engineering and technical advice and assistance to municipalities concerning flood protection measures. ❑ Coordinate with the Department of Water Stewardship to collect hydrologic data for flood forecasting purposes. ❑ Coordinate with the Department of Water Stewardship to conduct groundwater monitoring and well protection programs. **Transportation Policy and Motor Carrier Division** ❑ Determine routing and ensure compliance of heavy-lift trucking and movement of heavy equipment. ❑ Provide special transportation permits.	**Vehicle Equipment Management Agency (VEMA)** ❑ Provide and service light vehicles necessary to the emergency response through Fleet Vehicles Agency. ❑ Provide and service radios necessary to the emergency response through Radio Services. ❑ Provide and service heavy equipment / vehicles necessary to emergency response through Mechanical Equipment Services. **Materials Distribution Agency (MDA)** ❑ Provide office furniture; home care supplies / equipment; and personal care, janitorial and stationery supplies as necessary to the emergency response. ❑ Provide material support services. ❑ Arrange and provide transportation support for the movement of emergency equipment and supplies. ❑ Provide emergency postal services. **Procurement Services Branch (PSB)** ❑ Provide emergency purchasing services. **Air Services** ❑ Coordinate Life Flight and Medevac flights on a 24-hour basis utilizing government aircraft and commercial charter on an as required basis. ❑ Provide government aircraft for conservation of forest and other natural resources of the province and / or jurisdictions. ❑ Provide coordination and certification to all government clients with air charter travel arrangements using government aircraft and commercial carriers. ❑ Provide monitoring of all Air Services Flights. ❑ Provide aviation supports to all Manitoba Government departments, agencies and crown corporations. ❑ Plan, acquire, direct and control the use of all air transportation resources. **Accommodation Services Division** ❑ Assist College authorities in college emergency closing and re-opening. ❑ Coordinate use of government buildings for short term emergency housing. ❑ Liaise with universities with regards to emergency housing. ❑ Provide access to and security of the Manitoba Emergency Coordination Centre (MECC). ❑ Coordinate security services for other government facilities necessary to the emergency response. ❑ Coordinate the acquisition of commercial rental space for emergency facilities or accommodation. **Engineering & Operations Division** ❑ Construct temporary roads and bridges for emergency access to affected locations. ❑ Arrange for emergency repair of damaged provincial roads, bridges, airports, and water control infrastructures. ❑ Coordinate with Department of Water Stewardship to prepare, haul and provide sandbags, sandbagging equipment, and water barriers. ❑ Acquire, receive, issue and account for emergency supplies and equipment. ❑ Operate and maintain flood control works, under the direction of Water Stewardship. ❑ Administer public access and egress system within the flood plain and community ring dikes, in cooperation with the Departments of Water Stewardship, Conservation, and Justice. ❑ Plan, acquire, direct and control the use of fleet-net radio, sat phones, and equipment resources. **Transportation Policy and Motor Carrier Division** ❑ Assist in law enforcement situations.	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ❑ Participate in multi-agency debriefings.
*WS&H	❑ Administer *The Workplace Safety and Health Act* and associated regulations that deal with the health and safety of workers ❑ Eliminate workplace and public hazards through preventative measures like education, training, cooperation, and inspections and investigations - all legislated by our provincial documents. ❑ Protection of Manitoba's workforce.	❑ Secure workers and self-employed persons from risks to their safety, health and welfare arising out of, or in connection with, activities in an emergency response. ❑ Protect other persons from risks to their safety and health arising out of, or in connection with, an emergency response. ❑ Provide electrical / mechanical inspection services.	❑ Compile and maintain health and safety related records and logs. ❑ Monitor lease holder / contractor plans to determine if site is safe for recovery workers ❑ Investigate non-compliance with the *The Workplace Safety and Health Act*. The investigations may be coordinated with, or independent of, any other investigation in relation to the incident.

*MoA	The Ministry of Agriculture works to accelerate the greater prosperity and capacity of agricultural producers and industry, food processors, other rural entrepreneurs, organizations as well as rural and northern communities.	❑ Coordinate and lead on agricultural and food supply matters, including:
		  ❑ Arrange for the provision of emergency veterinary services as per *The Animal Care Act*.
		  ❑ Undertake arrangements for emergency evacuation and / or feeding of livestock.
		  ❑ Support agencies dealing with the rescue and care of companion and hobby farm animals in affected or evacuated areas.
		  ❑ Undertake arrangements for emergency evacuation of farm stored grains, fertilizer, pesticides, and other chemicals.
		  ❑ Take the provincial lead in an animal health incident or outbreak.
		❑ Facilitate farm and rural stress response during an emergency.
			❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
			❑ Participate in multi-agency debriefings.

Manitoba Hydro	❑ Provides electricity and gas service to communities throughout the province.	❑ Assure a continued supply of electrical energy and natural gas under emergency conditions. ❑ Provide temporary electrical or natural gas service when and where necessary for emergency operations. ❑ Protect Manitoba Hydro Installations. ❑ Interrupt electrical or natural gas service for protection of life and property. ❑ Advise and assist departments and local authorities with respect to emergency electrical or natural gas service.	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ❑ Participate in multi-agency debriefings.
*ITS	❑ Boiler, pressure vessel and refrigeration plant inspections. ❑ Gas and oil-fired equipment inspections and permits. ❑ Electrical application inspections. ❑ Elevator and amusement ride inspections. ❑ Licensing of power engineers, welders, gas fitters and electricians. ❑ Quality assurance reviews of certain engineering plans and decisions. ❑ Quality assurance program reviews for pressure equipment, pressure piping manufacturing and installation.	❑ Receive notification of an incident involving a Boiler, Pressure Vessel, Elevator or Amusement Ride	❑ Investigate accidents or unsafe conditions that involve boilers or pressure equipment.
*WCB	❑ Employer must report worker injuries to the WCB within 5 days from the day the worker reported it to them, or from the day the employer first learns of it, whichever is earlier. ❑ WCB will adjudicate the claim to determine if the injury arose out of and in the course of employment. ❑ WCB will provide benefits to which the worker is entitled under *The Workers Compensation Act*.		❑ Assist the worker to access treatment for his or her recovery and safe return to work.

	Before the Incident	During the Incident	After the Incident
*ECCC	Environment & Climate Change Canada's Environmental Emergencies Program (EEP) protects Canadians and their environment from the effects of environmental emergencies through provision of <u>science-based expert advice</u> and <u>regulations.</u> The key Acts and Regulations that govern ECCC's role in environmental emergencies that allow it to deliver its mandate are: ❏ *Canadian Environmental Protection Act, 1999* ❏ *Fisheries Act—Pollution Prevention Provisions;* ❏ *Migratory Birds Convention Act, 1994;* ❏ *Statutory Notification Requirements—EC's Environmental Notification System.* ❏ *Environmental Emergencies Regulations.*	During an environmental emergency, *The National Environmental Emergencies Centre (NEEC)* is the focal point for ECCC. **ECCC's services during an environmental emergency:** ❏ Collaborate with federal, provincial, territorial and international environmental protection agencies to enable rapid sharing of information. ❏ Convene and chair a Science Table of experts and stakeholders to develop consensus based advice to the Lead Agency. ❏ Identify environmentally sensitive areas and priorities (sensitivity and resource at risk mapping). ❏ Advise on mitigation and cleanup measures. ❏ Provide support and guidance in the assessment of oiled shorelines to prioritize their protection and cleanup (Shoreline Cleanup Assessment Technique (SCAT)). ❏ Advice on the fate and behavior of the spilled product. ❏ Advice on sampling and laboratory analysis. ❏ Provide weather forecasting and spill dispersion modelling to identify where these substances are likely to move in the environment. ❏ Provided expertise on the migratory bird resources and species at risk, including on-site assessment and determination of wildlife impact. ❏ Can conduct post-emergency assessments.	❏ ECCC can conduct post-emergency assessments. ❏ Provide specialized advice in shoreline clean-up assessment techniques (SCAT). ❏ Provide Advise on mitigation and cleanup measures..
*DFO	The Canadian Coast Guard is the lead federal agency for ensuring appropriate response to all ship-source and unknown mystery spills in Canadian waters and waters under international agreements. ❏ Establishes appropriate and nationally consistent level of preparedness and response services in Canadian waters. ❏ Design and develop related regulations, policies, strategies and tools. ❏ Review, assess and monitor activities associated with fish habitat to ensure their compliance with the Fisheries Act and Species at Risk Act. ❏ Conduct environmental assessments under the Canadian Environmental Assessment Act. ❏ Design, develop and implement communication and education strategies.	❏ Any amount of hydrocarbons entering a waterway frequented by fish or occupied by waterfowl is deemed to be in contravention of the Federal Fisheries Act and must be reported to the Department of Fisheries and Oceans. ❏ Work together with provincial environment protection agencies and may be initially notified by ECCC. ❏ May send personnel to the site if there has been or could potentially be an impact to fish or fish habitat. ❏ Monitors and investigates all reports of marine pollution in Canada in conjunction with other federal departments. ❏ Maintains communications with the program's partners, including Transport Canada and ECCC, to ensure a consistent coordinated approach to marine pollution incident response. ❏ Aids in search and rescue operations.	❏ Work closely with ECCC, The Canadian Coast Guard and other provincial environmental agencies.
NAV Canada	NAV Canada is a private company who coordinates the safe and efficient movement of aircraft in Canadian domestic airspace and international airspace assigned to Canadian control. **Flight Information Centre (FIC) – FIC Services** Each Flight Information Centre is responsible for providing its particular service area with the following services, which pilots rely upon for safe flight planning and operations: ❏ Emergency ❏ Aviation Weather Briefing ❏ Flight Planning ❏ En-route Flight Information Services ❏ Remote Aerodrome Advisory Services (RAAS)	❏ As requested by the oil and gas company, the Flight Information Centre will issue a NOTAM (Notice to Airmen). ❏ To close air space beyond an airport (e.g. above a sour gas release), Refer to Transport Canada on back side of this page.	❏ Rescind the NOTAM.
Health Canada	❏ Sets national standards to keep the environment healthy, keep water and air pollution low and Canadians safe. ❏ Maintains a nationwide network of radiation monitoring stations and can act if levels spike. ❏ Under Chemicals Management Plan, assess health risks from chemicals used in manufacturing and agriculture and require users to prove they actually need the chemicals to make their products ❏ Sets strict rules on how chemicals are used in order to limit human exposure. ❏ Preparedness exercises are designed to test how well the plans and procedures work during simulated emergency situations. Such exercises help the government identify strengths as well as any problems or inadequacies in preparedness plans and procedures so that these can be addressed before, not after, an actual emergency.	❏ During a health emergency or disaster, Health Canada and the Public Health Agency of Canada are responsible for supporting emergency health and social services in the provinces and territories.	❏ Work collaboratively with the provinces and territories to test ways in which the Canadian health care system can be improved and ensure its sustainability for the future.
Public Health Agency of Canada	The Centre for Emergency Preparedness and Response (CEPR) is responsible for: ❏ Developing and maintaining national emergency response plans for the Public Health Agency of Canada and Health Canada. ❏ Assessing public health risks during emergencies. ❏ Contribution to keeping Canada's health and emergency policies in line by collaborating with other federal and international health and security agencies. ❏ The health authority in the Government of Canada on bioterrorism, emergency health services and emergency response. ❏ Strengthen intergovernmental collaboration on public health and facilitate national approaches to public health policy and planning. ❏ Manages emergency preparedness and emergency response plans and keeps them up to date. ❏ Develops and runs exercises to train emergency workers. ❏ Develops and delivers training courses that teach health workers how to respond to emergencies.	❏ In an emergency situation, the Office of Emergency Response Services (OERS) is responsible for supporting emergency health and social services in the provinces, territories or abroad. It manages the National Emergency Stockpile System (NESS), which includes medical, pharmaceutical and related emergency supplies. The Office is responsible for the federal response to emergencies that have health repercussions; this includes the deployment of health emergency response teams (HERT). ❏ If a public health emergency grows beyond one province and/or territory, the Public Health Agency of Canada usually gets involved.	❏ Work with Health Canada to test ways in which the Canadian health care system can be improved and ensure its sustainability for the future.

Federal Agency Roles

Canada

Federal Agency Roles

Transport Canada

Before the Incident

❑ Maintain a 24 hour emergency telephone service.

*CANUTEC
❑ Regulate the handling, offering for transport and the transport of dangerous goods by all modes in order to ensure public safety.
❑ Federal regulations require that CANUTEC be contacted in the event of an incident or accident involving dangerous goods and infections substances.
❑ Maintains records of over 3 million Safety Data Sheets (SDS).

Aviation Operations Centre (AVOPS)
❑ Federal regulations require that AVOPS be contacted if there is imminent and immediate threat to aviation and public safety.

During the Incident

*CANUTEC
❑ Assist emergency response personnel in handling dangerous good emergencies including advice on
  ❑ Chemical, physical and toxicological properties and incompatibilities of the dangerous goods
  ❑ Health hazards and first aid
  ❑ Fire, explosion, spill or leak hazards
  ❑ Remedial actions for the protection of life, property and the environment
  ❑ Evacuation distances
  ❑ Personal protective clothing and decontamination
❑ CANUTEC staff does not go to the site of an incident, however, should on-site assistance be required, CANUTEC can assist in the activation or industry emergency response plans.
❑ Provide communication links with the appropriate industry, government or medical specialists.

Aviation Operations Centre (AVOPS)
❑ To close air space beyond an airport in a defined area (e.g. above a sour gas release), AVOPS can be contacted by the oil and gas company.

After the Incident

*CANUTEC
❑ Maintain voice communication and written information records for two years for the protection of all parties.

Aviation Operations Centre (AVOPS)
❑ Rescind the NOTAM and re-open air space that was closed due to emergency.

*PSC

Before the Incident

❑ Public Safety Canada works with provincial and territorial officials to ensure first responders and emergency management personnel are well-prepared through education, support and exercises.
❑ Responsible for promoting and coordinating the preparation of departmental emergency management plans as well as coordinating the government's response to an emergency through the Government Operations Centre (GOC).

During the Incident

❑ Public Safety Canada houses the Government Operations Centre at the hub of the national emergency management system. It's an advanced centre for monitoring and coordinating the federal response to an emergency.

After the Incident

❑ In the event of a large-scale natural disaster where response and recovery costs exceed what individual provinces and territories could reasonably be expected to bear on their own, PS provides financial assistance to the provincial and territorial governments through the Disaster Financial Assistance Arrangements (DFAA). Assistance is paid to the province or territory – not directly to individuals or communities. The provincial or territorial governments design, develop and deliver disaster financial assistance, determining the amounts and types of assistance that will be provided to those who have experienced losses.

*Canada Energy Regulator Roles & Responsibilities

The CER's top priority in any emergency is to make sure that people are safe and secure, and that property and the environment are protected. Any time there is a serious incident, CER inspectors may attend the site to oversee a company's immediate response. The CER will require that all reasonable actions are taken to protect employees, the public and the environment. Further, the CER will verify that the regulated company conducts adequate and appropriate clean-up and remediation of any environmental effects caused by the incident.

As lead regulatory agency, the CER:
❑ Monitors, observes and assesses the overall effectiveness of the company's emergency response in terms of:
  ● Emergency Management
  ● Safety
  ● Security
  ● Environment
  ● Integrity of operations and facilities; and
  ● Energy Supply.
❑ Investigates the event, either in cooperation with the Transportation Safety Board of Canada, under the Canada Labour Code, or as per the *Canada Energy Regulator Act or Canada Oil & Gas Operations Act* (whichever is applicable)
❑ Inspects the pipeline or facility
❑ Examines the integrity of the pipeline or facility
❑ Requires appropriate repair methods are being used
❑ Appropriate environmental remediation of contaminated areas is conducted
❑ Coordinate stakeholder and Aboriginal community feedback regarding environmental clean-up and remediation
❑ Confirms that a company is following its Emergency Procedures Manual (s), commitments, plans, procedures, and CER regulations and identifies non-compliances
❑ Initiates enforcement actions as required
❑ Approves the restart of the pipeline.

If applicable; refer to the CER site section behind the blue Area Specific Information tab for further regulations, definitions and, reporting guidelines for CER related incidents specific to this ERP.

*Transportation Safety Board Mandate

The Canadian Transportation Accident Investigation and Safety Board Act provides the legal framework that governs TSB activities. Our mandate is to advance transportation safety in the marine, pipeline, rail and air modes of transportation by:
❑ conducting independent investigations, including public inquiries when necessary, into selected transportation occurrences in order to make findings as to their causes and contributing factors;
❑ identifying safety deficiencies, as evidenced by transportation occurrences;
❑ making recommendations designed to eliminate or reduce any such safety deficiencies; and
❑ reporting publicly on our investigations and on the findings in relation thereto.

As part of its ongoing investigations, the TSB also reviews developments in transportation safety, and identifies safety risks that they believe the government and the transportation industry should address to reduce injury and loss.

To instill confidence in the public regarding the transportation accident investigation process, it is essential that an investigating agency be independent and free from any conflicts of interest when investigating accidents, identifying safety deficiencies, and making safety recommendations. As such, the TSB is an independent agency, separate from other government agencies and departments, that reports to Parliament through the President of the Queen's Privy Council for Canada. Our independence enables us to be fully objective in making findings as to causes and contributing factors, and in making transportation safety recommendations.

In identifying the causes and contributing factors of a transportation incident, it is not the function of the Board to assign fault or determine civil or criminal liability. However, the Board does not refrain from fully reporting on the causes and contributing factors merely because fault or liability might be inferred from the Board's findings. No finding of the Board should be construed as assigning fault or determining civil or criminal liability. Findings of the Board are not binding on the parties to any legal, disciplinary, or other proceedings.
http://tsb-bst.gc.ca/eng/gui-about/index.html

*Indigenous Services Canada, Regional Operations and First Nations and Inuit Health Branch

Since the Government of Canada's renewed commitment to a stronger relationship with Indigenous peoples in Canada, measures were initiated to effect a shift in the way the Government delivers services to Indigenous peoples. This included the creation of two new departments, which was announced on December 4, 2017. The two newly created departments, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and Indigenous Services Canada (ISC), are intended to improve the delivery of services while accelerating movement towards self-government and self-determination of Indigenous peoples.

As part of the departmental transition, both the former Regional Operations (RO) part of Indigenous and Northern Affairs Canada (INAC) and all of First Nations and Inuit Health Branch (FNIHB) of Health Canada have been absorbed into the newly created Indigenous Services Canada (ISC). RO and FNIHB work closely and collaborate towards the provision of emergency preparedness and response activities to First Nations communities in Canada.

In regards to First Nations emergency management, the role of RO is to liaise, communicate, cooperate, coordinate and collaborate with First Nations and public, private, and non-government sector partners in support of on reserve emergency management service delivery. ISC-RO supports First Nations in the four pillars of emergency management through service agreements with partners such as provincial emergency management agencies and the Red Cross.

FNIHB carries out the public health preparedness and response activities related to natural and man-made disasters. This includes Communicable Disease Control and Environmental Public Health Services. In addition, FNIHB administers Non-Insured Health Benefits to First Nations clients, which includes extended coverage for medical transportation, pharma-care, medical devices and mental health supports. During an emergency, FNIHB works with First Nations leadership and health service providers to ensure health needs of First Nations communities are met.

Provincial specific FNIHB roles & responsibilities will be found in this section of the ERP, if applicable or as appropriate.

*Indian Oil & Gas Canada

IOGC is an organization committed to managing and regulating oil and gas resources on First Nation reserve lands. It is a special operating agency within Indigenous Services Canada.

IOGC is responsible for oil and gas on First Nation reserve lands across Canada, but only a handful of reserves exist north of the 60th parallel. Therefore, practically all of IOGCs work is south of the 60th parallel, with most of that in the Western Canada Sedimentary Basin.

IOGC's general responsibilities are to:
❑ identify and evaluate oil and gas resource potential on Indian reserve lands;
❑ encourage companies to explore for, drill and produce these resources through leasing activity;
❑ ensure equitable production, fair prices and proper collection of royalties on behalf of First Nations; and
❑ secure compliance with and administer the regulatory framework in a fair manner.

IOGC operates pursuant to the *Indian Oil and Gas Act, 2009,* and its associated *Indian Oil and Gas Regulations, 2019,* as well as other relevant legislation and guidelines (see Acts and Regulations) which came into force and became law on August 1, 2019. Oil and gas activity on First Nation reserve lands depends on agreements involving First Nation band councils, oil and gas companies, and Indian Oil and Gas Canada.

Additional information is available at: http://www.pgic-iogc.gc.ca/eng/1100110010458/1100110010464
Acts and Regulations: https://www.pgic-iogc.gc.ca/eng/1100110010437/1100110010438

TRANSPORT CANADA

CANUTEC/CHEMTREC

CANUTEC is the Canadian Transport Emergency Centre operated by the Transportation of Dangerous Goods (TDG) Directorate of Transport Canada. The Directorate's overall mandate is to promote public safety in the transportation of dangerous goods by all modes. Contact CANUTEC in the event of an emergency involving dangerous goods.

CHEMTREC allows shippers of hazardous materials to comply with government materials regulations and provide immediate critical response information for emergency incidents involving chemicals, hazardous materials and dangerous goods.

Additionally, the 2020 Emergency Response Guidebook (ERG2020) was developed jointly by Transport Canada (TC) and the US Department of Transportation (DOT) to aid fire fighters, police, and other emergency services who may be the first on scene responding to a transportation incident involving dangerous goods.

Refer to the following link to access the *2020 Emergency Response Guidebook*:

https://www.tc.gc.ca/eng/canutec/guide-menu-227.htm

The Transportation of Dangerous Goods Act, 1992 (TDGA), requires a person to hold an approved ERAP prior to handling, offering for transport, transporting, or importing specified dangerous goods. An ERAP ensures that specialized personnel and equipment are available in a timely manner in the event of an actual or anticipated release of dangerous goods, in order to assist and/or supplement primary emergency response resources. An ERAP describes actions to be taken by specialized emergency response personnel in the event of an actual or anticipated release in the course of their handling or transporting by rail or road, in order to mitigate risk to public safety.

The ERAP Activation Number is a dedicated, 24/7 service at the ERAC Emergency Call Centre (ECC). The Emergency Call Centre Operator (ECCO) is capable of communicating in both English and French, and immediately connects the caller with the on-duty Home Base Coordinator. Calls received by the ECC are voice recorded and documented in the Incident Briefing form.

The table below outlines the Cenovus Emergency Response Assistance Plan (ERAP):

CANUTEC/CHEMTREC Emergency Response					
Shipping Name	ERAP Number	Type of Transport	Country	Emergency Number	Products Covered Under ERAP
Flammable Gases	2-0010-302	Road, Rail	CANUTEC (Canada) Chemtrec (US)	1-613-996-6666 1-800-424-9300	Class 2.1 Flammable Gas LPG, UN1075 Propane, UN1978 Butane, UN1011 Propylene, UN1077 Butylene, UN1012 Isobutane, UN1969 Isobutylene, UN1055 Butadiene 1, 3 Stabilized, UN1010
Flammable Liquids	2-1933-006	Rail	CANUTEC (Canada) Chemtrec (US)	1-613-996-6666 1-800-424-9300	Class 3 Flammable Liquids Ethanol & Ethanol Solution, UN1170 Diesel, UN1202 Gasoline, UN1203 Petroleum Crude Oil, UN1267 Petroleum Distillates/Petroleum Products, UN1268 Fuel, Aviation, Turbine UN1863 Alcohol N.O.S., UN1987 Flammable Liquid N.O.S., UN1993 Hydrocarbons, Liquid N.O.S., UN3295 Ethanol & Gasoline Mixture < 10% ethanol, Ethanol & Motor Spirit Mixture <10% ethanol, Ethanol & Petrol Mixture <10% ethanol, UN3475 Petroleum Sour Crude Oil, Flammable Toxic, UN3494

Transportation of Dangerous Goods Regulation

Cenovus is required to report a release or anticipated release of dangerous goods that are being offered for transport, handled or transported by road vehicle, railway vehicle or vessel must, as soon as possible after a release or anticipated release, make an emergency report to any local authority that is responsible for responding to emergencies at the geographic location of the release or anticipated release if the dangerous goods are, or could be, in excess of the quantity set out in the following table:

SOR/2017-253

Class	Packing Group or Category	Quantity
1	II	Any quantity
2	Not applicable	Any quantity
3, 4, 5, 6.1 or 8	I or II	Any quantity
3, 4, 5, 6.1 or 8	III	30 L or 30 kg
6.2	A or B	Any quantity
7	Not applicable	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substances Regulations, 2015"
9	II or III, or without packing group	30 L or 30 kg

Types of reports required by Transport Canada

Part 8 of the TDG Regulations (Reporting Requirements) requires a number of different report types. When certain conditions are met, persons subject to the TDG Regulations must submit one of the report types below.

SOR/2016-95

- Reports for the Transport of Dangerous Goods by Road, Rail and Marine
- Emergency Report – Road, Rail or Marine (Section 8.2)
- Release or Anticipated Release Report – Road, Rail or Marine (Section 8.4)
- 30-Day Follow-up Report (Section 8.6)
- Reports for the Transport of Dangerous Goods by Air
- Dangerous Goods Accident or Incident Report — Air (Section 8.9)
- 30-Day Follow-up Report (Section 8.11)
- Undeclared or Misdeclared Dangerous Goods Report (Section 8.14)
- Dangerous Goods Occurrence Report (ICAO) (Section 8.15.1)
- Reports Relating to Security – All Modes of Transport
- Loss or Theft Report (Section 8.16)
- Unlawful Interference Report (Section 8.18)
- ERAP Incident Report (Section 8.20)
- ERAP Implementation Report (Section 8.22)

ERAP Incident Reporting

Cenovus is required to report a release or anticipated release of dangerous goods in respect of which an approved ERAP is required, as soon as possible after the release or anticipated release, make an ERAP incident report by telephone to the person at the ERAP telephone number required to be included on the shipping document, if the dangerous goods are, or could be, in excess of the quantity set out in the following table:

SOR/2019-101

Class	Quantity
1, 2, 3, 4, 5, 6 or 8	Any quantity
7	A level of ionizing radiation greater than the level established in section 39 of the "Packaging and Transport of Nuclear Substances Regulations, 2015"

TDG Release or Anticipated Release Emergency Report by Telephone – Road, Rail or Marine

```
                          ┌─────────────────┐
                          │    Incident     │
                          └────────┬────────┘
                                   │
                                   ▼
              ┌───────────────────────────────────────┐
              │  The release or anticipated release:   │
              │       Exceeds quantity in table        │
              │                 AND                    │
              │  Endangers, or could endanger, public  │
              │                safety                  │
              └──────┬──────────────────────────┬──────┘
                     │                          │
   ┌──────────────────────┐   ┌─────┐    ┌─────┐   ┌──────────────┐
   │ Emergency Report to  │◄──│ YES │    │ NO  │──►│   Report     │
   │ local authorities    │   └─────┘    └─────┘   │     not      │
   │ responsible for      │                        │   required   │
   │ responding to        │                        └──────────────┘
   │ emergencies          │
   │                      │
   │ (Section 8.2 of the  │
   │ TDGR)                │
   └──────────┬───────────┘
              │
              ▼
   ┌──────────────────────┐
   │  Refer to Release or │
   │  Anticipated Release │
   │  Report – Road, Rail │
   │      or Marine       │
   └──────────────────────┘
```

TDG Release or Anticipated Release Report – Road, Rail or Marine

The release or anticipated release results in:
- The death of a person
- The treatment of a person's injuries by a health care professional
- An evacuation or shelter in place
- The closure of a facility, road, main railway line, main waterway

Or if:
- The means of containment has been damaged so that its integrity is compromised
- The center sill or stub sill of a tank car is broken or has a crack in the metal of at least 15 cm (6 in)

```
              ┌─────┐          ┌─────┐    ┌──────────────┐
              │ YES │          │ NO  │──► │   Report     │
              └──┬──┘          └─────┘    │     not      │
                 │                        │   required   │
                 ▼                        └──────────────┘
```

Release or Anticipated Release Report – Road, Rail or Marine (Section 8.4 of the TDGR)

Submit to:
- CANUTEC at 1-888-CAN-UTEC (226-8832), 613-996-6666 or *666 on a cell phone
- The consignor
- If dangerous goods are included in Class 7, the Canadian Nuclear Safety Commission
- For a ship, a Vessel Traffic Services Centre or a Canadian Coast Guard radio station

➜ 30-Day Follow-up Report Form TP16-0086 Submit to the Director General, TDG (Section 8.6 of the TDGR)

Please take note that the company policy may require you to make a telephone report to:
- The employer
- For a road vehicle, the vehicle's owner, lessee or charterer

In the event of an emergency involving dangerous goods, call CANUTEC at 1-888-CAN-UTEC (226-8832), 613-996-6666 or *666 on a cellular phone. CANUTEC's emergency response advisors provide immediate advice over the phone about the actions to take and to avoid during a dangerous goods emergency. They can also send technical information to local authorities responsible for responding to emergencies by email or fax during an incident.

In the case of dangerous goods included in Class 1, Explosives included in Class 1.1, 1.2, 1.3, 1.4 (except for 1.4S), 1.5 or 1.6, a Natural Resources Canada inspector at 613-995-5555

In the case of dangerous goods included in Class 7, Radioactive Materials, the Canadian Nuclear Safety Commission

Refer to the following link to access the Transport Canada Guide for Reporting Dangerous Goods Incidents:

https://www.tc.gc.ca/media/documents/tdg-eng/RDIMS-11958014-v22-GUIDE_FOR_REPORTING_DANGEROUS_GOODS_INCIDENTS_DH_pdf.pdf

Emergency Response Assistance Canada
Emergency Response Assistance Plan
Liquefied Petroleum Gas

ACTIVATION PROCESS
Figure 1 Activation Process
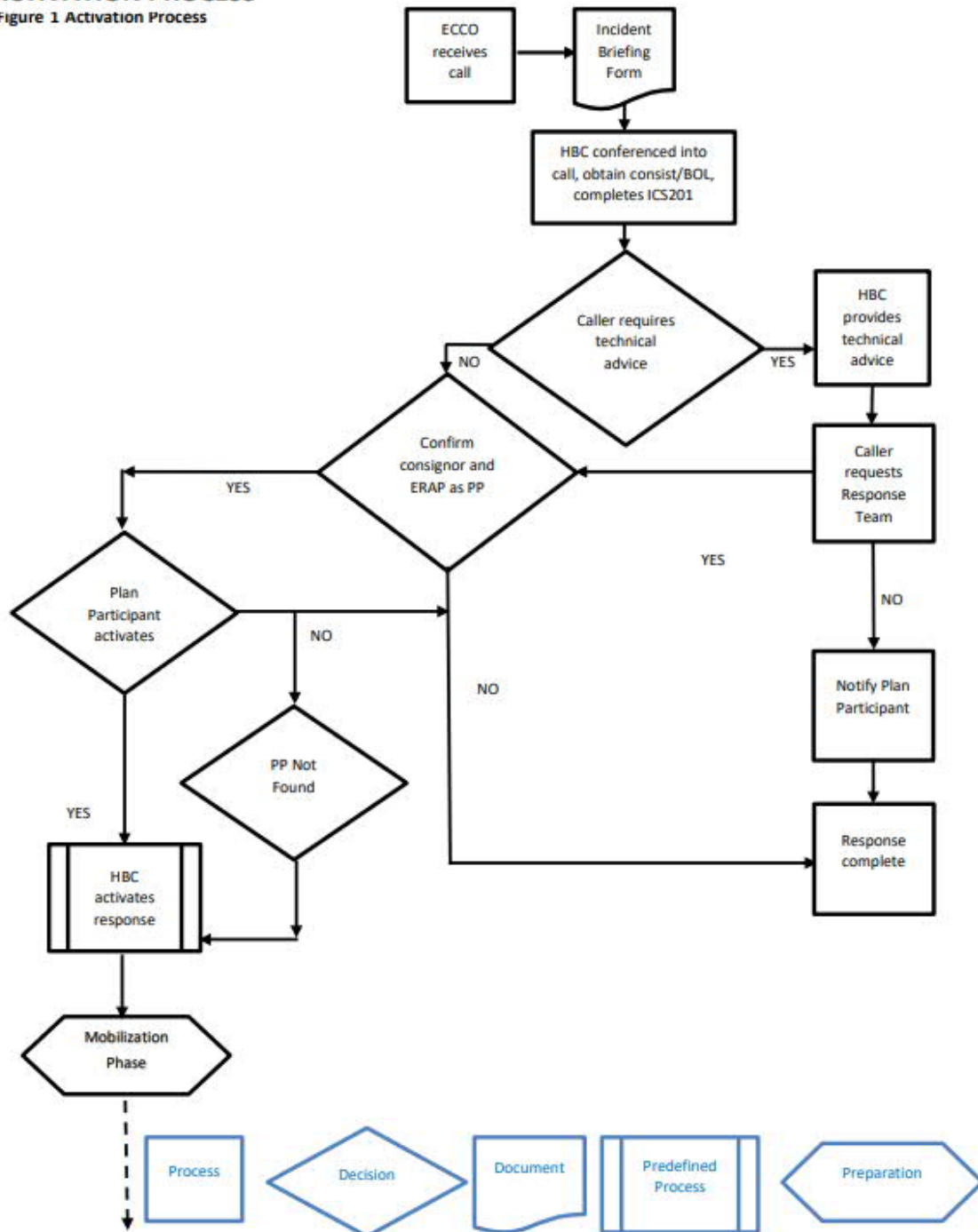
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SECTION 6: FORMS

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DOCUMENTATION DURING AND AFTER AN INCIDENT

It is imperative that accurate documentation is kept throughout the duration of an incident for record keeping purposes. Records kept may be used for legal, investigation, audits, historical and/or analytical purposes. All documentation must be held for a minimum of 5 years as it may be requested by the regulatory agency at any point during that time.

It is the Documentation Unit's responsibility to collect documentation (forms, checklists, event logs, etc.) from response team members and maintain a consistent system for organizing the data.

FORM DESCRIPTIONS

The ICS uses a series of standard forms and supporting documents that convey directions for the accomplishment of the objectives and distributing information. Listed below are the standard ICS form titles and descriptions of each form that the company utilizes.

Standard ICS Form Title	ICS Form Description
ICS 201 Form - Incident Briefing	Provides the Incident Command and General Staffs with basic information regarding the incident situation and the resources allocated to the incident. This form also serves as a permanent record of the initial response to the incident.
ICS 202 Form - Incident Objectives	Describes the basic strategy and objectives for use during each operational period.
ICS 207a Form - Incident Management Team (IMT) Organization Chart	A complete picture of the organizational structure for the Incident Management Team.
ICS 207b Form - Incident Support Team (IST) Organization Chart	A picture of the organizational structure for the Incident Support Team.
ICS 209 Form - Incident Status Summary	Summarizes incident information for staff members and external parties, and provides information to the Information Officer for preparation of medial releases.
ICS 211 Form - Check-In/Out List	Used to check in personnel and equipment arriving at or departing from the incident. Check-in/out consists of reporting specific information that is recorded on the form.
ICS 213RR Form - Resource Request Message	Used to order resources and track resource status. It is also used to determine incident costs.
ICS 214 Form - Individual Activity Log	Provides a record of unit activities. Unit Logs can provide a basic reference from which to extract information for inclusion in any after-action report.
ICS 215 Form - Operational Planning Worksheet	Documents decisions made concerning resource needs for the next operational period. The Planning Section uses this Worksheet to complete Assignment Lists, and the Logistics Section uses it for ordering resources for the incident. This form may be used as a source document for updating resource confirmation on other ICS forms such as the 209 Incident Status Summary.

FORM DESCRIPTIONS, continued

Standard ICS Form Title	ICS Form Description
ICS 215a Form - Incident Action Plan Safety Analysis	Used to communicates to the Operations and Planning Section Chiefs the potential hazards identified by the Safety Officer. It identifies mitigation measures to address the identified hazards.
ICS 221 Form Demobilization Checkout	Ensures that resources checking out of the incident have completed all appropriate incident business, and provides the Planning Section information on resources released from the incident.
ICS 232 Form Resources at Risk	Form used by Environmental personnel. Provides information about sites in the incident area which are sensitive due to environmental resources at risk, and identifies incident-specific priorities and issues.
ICS 233 Form - Incident Open Action Tracker	Used by Command Staff to track time sensitive tasks / actions assigned to incident personnel.

Emergency Form Title	Emergency Form Description
A1 - Regulatory First Call Communication	A regulatory required form used to send detailed information to the provincial regulator about an emergency used for assessment, historical, and analytical purposes following an incident.
A2 - BCER Form C – Emergency Incident Form	A form required by the BCER following any Level 1, 2 or 3 incident, as defined by the assessment matrix in SECTION 1: INITIAL RESPONSE.
A3 - BCER Form D – Permit Holder Post Incident Report	A form required to be submitted to the BCER within 60 days following any Level 1, 2 or 3 emergency incident or any pipeline incident.
A4 - Incident Action Plan Checklist	A checklist of other forms and information required to accurately create an incident action plan.
A5 - Air Monitoring Log	A form used by designated Air Monitor personnel to log information about air quality readings.
A6 - Threatening Call/Bomb Threat	Detailed point driven form used to document incoming phone calls pertaining to personnel threats and bomb threats.
A7 - Stars Landing Zone Card	An information card utilized if medical evacuation is required via STARS Air Ambulance.
A8 - CEPA E2 Verbal Notification and Reporting of an Incident	A log used to document details to help aid in verbal notification to Environment Canada in the event of CEPA E2 regulated facility incident.
A9 - CEPA E2 Written Notification and Reporting of an Incident	A log used to document details and to provide as written notification to Environment Canada in the event of CEPA E2 regulated facility incident.

FORM DESCRIPTIONS, continued

Resident Form Title	Resident Form Description
B1 - Reception Centre Registration Log	Log used by Reception Centre Rep to record information from evacuees being received at the reception centre. Can also be faxed to reception centre in case a representative has not been identified or cannot make it before evacuees start arriving.
B2 - Resident Compensation Log	Detailed spreadsheet for expenses incurred by evacuees so that compensation may be properly dealt with.
B3 - Resident Contact Log	A log used by various company personnel to record contact made with residents, whether they're sheltered/evacuated and if assistance is required.
B4 - Roadblock Log	A log used by designated Roadblock personnel to identify details about vehicles and persons entering or exiting a hazard area.
B5 - Evacuation Notice	A document to be left in doors/windows of surface developments that are unable to be contacted as a way to issue evacuation instructions
B6 - Early Notification/Voluntary Evacuation Message	A script and document filled out by Telephoner personnel issuing calls to residents for early notification and voluntary evacuation purposes.
B7 - Shelter-In-Place Message	A script and document filled out by Telephoner personnel issuing calls to residents with shelter-in-place instructions.
B8 - Evacuation Phone Message	A script and document filled out by Telephoner personnel issuing calls to residents with evacuation instructions.
B9 - School Children Registration Record	A log used to document all applicable student information that arrive and depart the reception centre.

Media Form Title	Media Form Description
C1 - Preliminary Media Statement	A generic script used by the Media Spokesperson to issue media statements until which time more detailed information is known and can be issued.
C2 - Media Contact Log	A log used to identify what media outlets/persons have contacted the company and their contact information.
C3 - Government Agency Contact Log	A log used to identify what government agencies have been notified about the incident.
C4 - Media Centre Site	A document to distribute to media outlets/persons about the location for further media enquiries and press releases as well as details to get there.

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Incident Name:	Incident Location (LSD/NTS):	
Time of Event:	Time Zone:	Date of Event (mm/dd/yy):
Level of Emergency: ☐ Alert/Minor Level ☐ Level 1 ☐ Level 2 ☐ Level 3		
Incident Commander Name & Phone Number:	ICP Location / Phone Number:	STARS / 911 Notified: ☐ Yes ☐ No
On-Site Supervisor Name & Phone Number:	On-Site Command Post Location:	

Initial Emergency Summary:

Safety Considerations:

Map Sketch:

Note: Maps can be drawn or attached here.

Page 1 of 6

Priorities	Problems	Objectives
Life Safety		
Incident Stabilization		
Environment / Property		
Stakeholder Management		

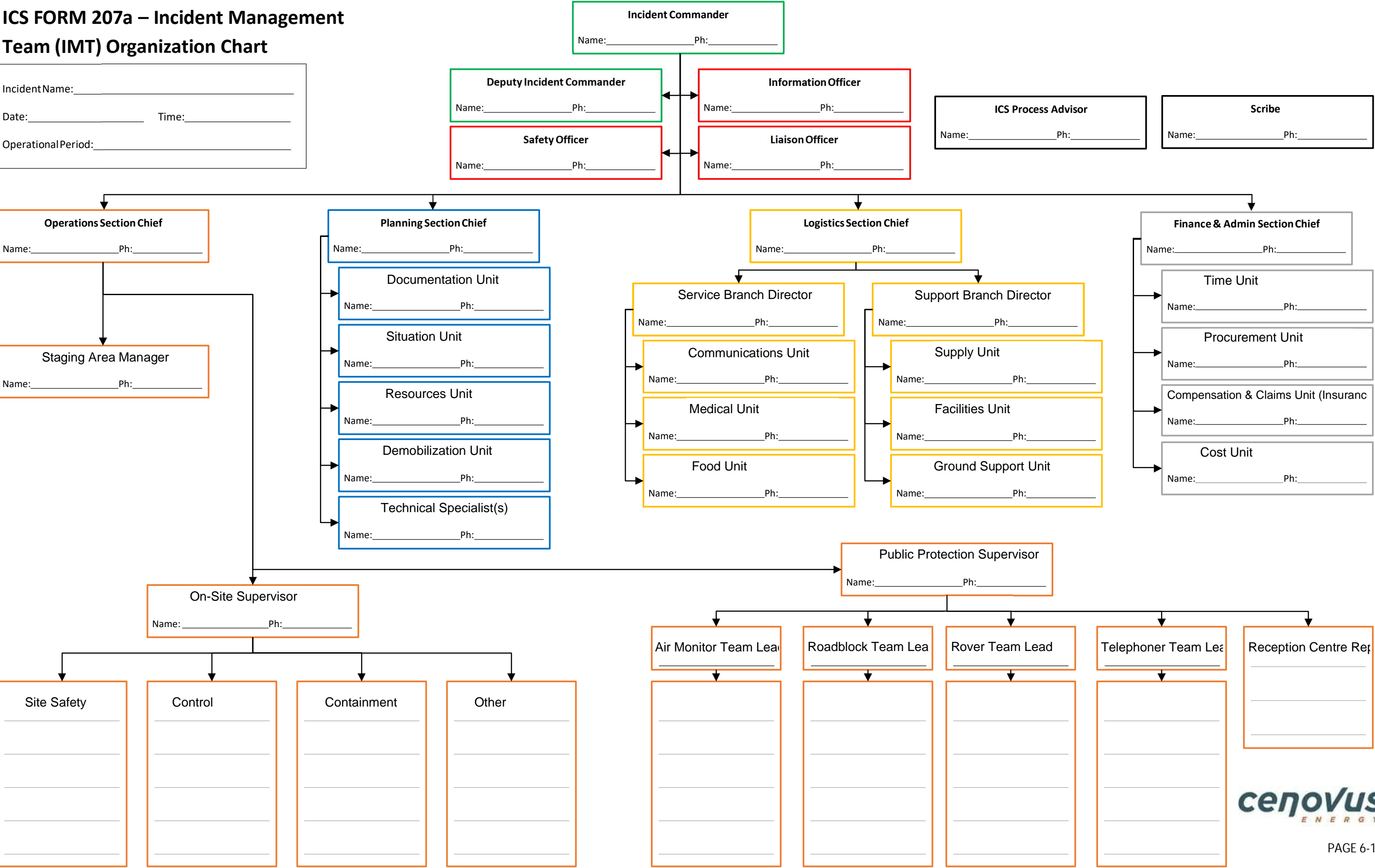| Current and Planned Actions:	
Time	Actions

ICS FORM 207a – Incident Management Team (IMT) Organization Chart

Incident Name:_____

Date:_____ **Time:**_____

Operational Period:_____

Incident Commander

Name:_____Ph:_____

Deputy Incident Commander

Name:_____Ph:_____

Information Officer

Name:_____Ph:_____

Safety Officer

Name:_____Ph:_____

Liaison Officer

Name:_____Ph:_____

ICS Process Advisor

Name:_____Ph:_____

Scribe

Name:_____Ph:_____

Operations Section Chief

Name:_____Ph:_____

Name:_____Ph:_____

Planning Section Chief

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Logistics Section Chief

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Finance & Admin Section Chief

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

Name:_____Ph:_____

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Resources Summary:				
Resource(s)	Time Called	ETA	Arrival	Notes (Location/Assignment/Status)
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	
			☐	

Internal and External Notifications:		
Agency / Person(s)	Time Called	Notes

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Note: This is the first page of an Incident Action Plan (cross-reference A4 Incident Action Plan Checklist)

Incident Name:	Operational Period:
Date:	Time Initiated (24 Hrs):
Prepared by:	ICS Position:

General Control Objectives for the Incident:

Note: Create and prioritize SMART (Specific, Measureable, Attainable, Realistic, & Time-Sensitive) objectives that address the incident issues and utilize the solutions identified on the Operations Briefing page.

1	
2	
3	
4	
5	

Weather Forecast:

General Safety Message:

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1. Incident Name:	2. Operational Period (Date / Time) From: To:
3. Branch:	4. Division / Group:

5. Operations Personnel	Name	Affiliation	Contact Number
Operations Section Chief			
Branch Director			
Division / Group Supervisor			

6. Resources Assigned This Period

Strike Team / Task Force / Resource Identified	Leader	Contact Info.	No. of Persons	Notes / Remarks

7. Assignments:

8. Special Instructions for Division / Group:

9. Communications (radio and / or telephone contact numbers needed for this assignment)

Name / Function	Radio Freq. / System / Channel	Phone	Other

Emergency Communications		
Medical:	Evacuation:	Other:

10. Prepared By (Resource Unit Leader):	Date / Time:
11. Approved By (Planning Section Chief):	Date / Time:

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ICS FORM 207a – Incident Management Team (IMT) Organization Chart

Incident Name:_____

Date:_____ Time:_____

Operational Period:_____

Incident Commander

Name:_____ Ph:_____

Deputy Incident Commander

Name:_____ Ph:_____

Information Officer

Name:_____ Ph:_____

Safety Officer

Name:_____ Ph:_____

Liaison Officer

Name:_____ Ph:_____

ICS Process Advisor

Name:_____ Ph:_____

Scribe

Name:_____ Ph:_____

Operations Section Chief

Name:_____ Ph:_____

Planning Section Chief

Name:_____ Ph:_____

Logistics Section Chief

Name:_____ Ph:_____

Finance & Admin Section Chief

Name:_____ Ph:_____

Staging Area Manager

Name:_____ Ph:_____

Documentation Unit

Name:_____ Ph:_____

Situation Unit

Name:_____ Ph:_____

Resources Unit

Name:_____ Ph:_____

Demobilization Unit

Name:_____ Ph:_____

Technical Specialist(s)

Name:_____ Ph:_____

Service Branch Director

Name:_____ Ph:_____

Communications Unit

Name:_____ Ph:_____

Medical Unit

Name:_____ Ph:_____

Food Unit

Name:_____ Ph:_____

Support Branch Director

Name:_____ Ph:_____

Supply Unit

Name:_____ Ph:_____

Facilities Unit

Name:_____ Ph:_____

Ground Support Unit

Name:_____ Ph:_____

Time Unit

Name:_____ Ph:_____

Procurement Unit

Name:_____ Ph:_____

Compensation & Claims Unit (Insuranc

Name:_____ Ph:_____

Cost Unit

Name:_____ Ph:_____

Public Protection Supervisor

Name:_____ Ph:_____

On-Site Supervisor

Name: _____ Ph:_____

Site Safety

Control

Containment

Other

Air Monitor Team Lead

Roadblock Team Lea

Rover Team Lead

Telephoner Team Lea

Reception Centre Rep

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Director
Name:_____
Phone:_____

CMT Lead
Name:_____
Phone:_____

Scribe
Name:_____
Phone:_____

Deputy Director
Name:_____
Phone:_____

Operations
Name:_____
Phone:_____

Safety
Name:_____
Phone:_____

Communications
Name:_____
Phone:_____

Legal
Name:_____
Phone:_____

Planning
Name:_____
Phone:_____

Human Resources
Name:_____
Phone:_____

Operations Support
Name:_____
Phone:_____

Logistics
Name:_____
Phone:_____

Risk
Name:_____
Phone:_____

Finance
Name:_____
Phone:_____

Documentation
Name:_____
Phone:_____

Information Technology
Name:_____
Phone:_____

External Liaison
Name:_____
Phone:_____

Technical Specialist
Name:_____
Phone:_____

Subject Matter Experts
- Business Continuity
- Cyber Security
- Rail Marketing
- Well Delivery
- Marine
- Spill
- Fire
- Security
- Industrial Hygienist
- Occupational Health & Wellness
- Transportation of Dangerous Goods
- Air & Ground Transportation

On-Call Roles

Standby Roles

CMT Roles

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Incident Name:	Location of Incident:
Date:	Time Initiated (24 Hrs):
Prepared by:	ICS Position:

Spill Status (estimated in barrels)

Source Status: ☐ Secured ☐ Unsecured	Remaining Potential Barrels (bbl): Rate of Spillage (bbl/hr):	
Volume Spilled	Since Last Report	Total

Mass Balance / Oil Budget		
Recovered Oil		
Evaporation		
Natural Dispersion		
Chemical Dispersion		
Burned		
Floating, Contained		
Floating, Uncontained		
Onshore		
Total spilled oil accounted for:		

Waste Management (estimated)   (Ops / Disposal)

	Recovered	Stored	Disposed
Oil (bbl)			
Oily Liquids (bbl)			
Liquids (bbl)			
Oily Solids (tons)			
Solids (tons)			

Shoreline Impacts (estimated in kilometres)   (PSC/EUL/SSC)

Degree of Oiling	Affected	Cleaned	To be Cleaned
Light			
Medium			
Heavy			
Total			

Wildlife Impacts   (Ops / Wildlife Br.)

Wildlife	Captured	Cleaned	Released	DOA	Euth.	Other
Birds						
Mammals						
Reptiles						
Fish						
Other Species						
Other Species						

Equipment Resources				(RUL.)
Description	Ordered	Available/Staged	Assigned	Out of Service
Spill Response Vessels				
Fishing Vessels				
Tugs				
Barges				
Other Vessel				
Other Vessel				
Other Vessel				
Skimmers				
Skimmers				
Skimmers				
Boom (ft.)				
Sbrnt/Snr Bm. (ft.)				
Additional Booms				
Additional Booms				
Vacuum Trucks				
Vacuum Trucks				
Vacuum Trucks				
Helicopters				
Helicopters				
Fixed Wing				
Fixed Wing				
Fixed Wing				

Personnel Resources			
	In Command Post	In the Field	Total On-Scene
Federal			
Provincial			
Local			
Contract			
Volunteers			
Volunteers			
Volunteers			

Notes

Incident Name:		Date:		Time:			Operational Period:	

Check-in Location: ☐ ICP ☐ EOC ☐ VEOC ☐ Staging Area ☐ Other: 　　　　Staging Area Manager:

Name	Company	ICS Section / Assignment	Primary Contact Number	Status			Time	
				Available	In-service	Out-of-order	In	Out

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ICS 213RR FORM – RESOURCE REQUEST MESSAGE

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Incident Name:	Date:	Time:	Resource Request Number:

Requestor

4. Order (Use additional forms when requesting different resource sources of supply):

Qty.	Kind	Type	Detailed Item Description: (Vital characteristics, brand, specs, experience, size, etc.)	Arrival Date and Time		Cost
				Requested	Estimated	

5. Requested Delivery/Reporting Location:

6. Suitable Substitutes and/or Suggested Sources:

7. Requested by Name/Position:	8. Priority: ☐ Urgent ☐ Routine ☐ Low	9. Section Chief Approval:

Logistics

10. Logistics Order Number:	11. Supplier Phone/Fax/Email:
12. Name of Supplier/POC:	

13. Notes:

14. Approval Signature of Auth Logistics Rep:	15. Date/Time:

16. Order placed by (check box): ☐ SPUL ☐ PROC

Finance

17. Reply/Comments from Finance:

18. Finance Section Signature:	19. Date/Time:

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ICS Form 214 – Individual Activity Log

This log provides a place for individual responders to capture information and notes during the response to an emergency incident.

Name: _____

Date: _____

Incident/ Event Name: _____

ICS Role: _____

Guidance Notes:

- **DO NOT REMOVE ANY PAGES FROM THIS LOG. Do not erase or scratch out mistakes or changes.** Simply run a single line through the text so that it is still legible.

- Key facts should be logged with the Documentation Unit/ Planning Section on the Event Log.

- When you are finished with this log, draw a line under your last comment and sign, date and time underneath the line. Hand the log to the **Documentation Unit personnel/ Planning Section Chief** before you leave the Incident Command Post (ICP)/Emergency Operations Centre (EOC)/Virtual Emergency Operations Centre (VEOC).

- Please consult the Legal Officer if you have any questions or concerns regarding **PRIVILEGE AND CONFIDENTIALITY**.

- Page ____ of _____

Event:	Date:
	By:

Activity Log	
Time	**Details**

Page ___ of ____

Event:	Date:
	By:

Activity Log	
Time	**Details**

Page ___ of ____

| Event: | Date: |
| | By: |

Activity Log	
Time	Details

Page ___ of ____

Incident Name:		Date:		Time:			Operational Period:	
Section/ Unit/ Division/ Group	Work Assignment	Resource / Equipment	Req.	Have	Need		Location	ETA
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
			☐	☐	☐			
Total Resources Required								
Total Resources Available								
Total Resources Needed								

Prepared By:_____

ICS Position:_____

Approved by: _____

ICS Position: _____

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ICS 215a FORM - INCIDENT ACTION PLAN SAFETY ANALYSIS

EMERGENCY RESPONSE PLAN

Incident Name:	Date / Time Initiated:
Prepared by:	ICS Position:

Division or Group	Potential Hazards	Controls (e.g. PPE, buddy system, escape routes)

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ICS 221 FORM - DEMOBILIZATION CHECKOUT

EMERGENCY RESPONSE PLAN

Incident Name / Number:			Date / Time:		Demob. Number:	
Unit/Personnel Released:						
Transportation Type / Number:						
Actual Release Date / Time:				Manifest Completed? ☐ Yes ☐ No		
Destination:	Notify:	☐ HQ ☐ Agency ☐ Region ☐ Area ☐ Dispatch				
	Name:					
	Date:					
Unit Leader responsible for collecting performance rating						

Unit / Personnel

You and your resources have been released subject to Sign-Off from the following:

Demobilization Unit Leader – Check the appropriate box

Logistics Section	
☐ Supply Unit	
☐ Communications Unit	
☐ Facilities Unit	
☐ Ground Support Unit Leader	
Planning Section	
☐ Demobilization Unit	
Finance/Admin Section	
☐ Time Unit	
Other	
☐	
☐	

Remarks:

Page		of		Prepared By: (Name and Position):	Signature:

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1. Incident Name:	2. Operational Period (Date / Time) From: To:

3. Environmentally Sensitive Areas and Wildlife Issues

Site #	Priority	Site Name and / or Physical Location	Site Issues

Narrative:

4. Archaeo-cultural and Socio-economic Issues

Site #	Priority	Site Name and Physical Location	Site Issues

Narrative:

5. Prepared By (Environmental Unit Leader):	Date / Time:

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Incident Name:			Prepared by:				ICS Position:		
Date Initiated:			Time Initiated:						
No.	Description	Action Owner	Briefed	Start Date	Status	Notes	Target Date	Completion Date
1			☐					
2			☐					
3			☐					
4			☐					
5			☐					
6			☐					
7			☐					
8			☐					
9			☐					
10			☐					
11			☐					
12			☐					

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1. Incident Name:	2. Operational Period: From: To:	
3. Operational Objectives (Desired Outcome)	4. Strategy (How)	5. Tactics (What, Where, Who, When)
6. Prepared by (Operations Section Chief): Signature:		7. Date/Time:

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A1 - AER FIRST CALL COMMUNICATION

This form is to be used when taking information for spills/releases. It will assist in consistent gathering of data and should be attached to the FIS record.

Alberta Energy Regulator

General Incident Information
AER contact:	Field centre:
Licensee:	Caller:	Phone:
E-mail address for release report:
Licence #:	Pipeline line #:	Approval #:
Incident location: ____ / _____ / _____ / _____ W ___ M
Emergency level:
Serious event? ☐ Yes ☐ No
If yes, what kind of serious event? ☐ Blowout ☐ Explosion ☐ Fire ☐ Other control loss ☐ Fracking ☐ Casing failure
Land type (jurisdiction): ☐ Freehold ☐ First Nations ☐ Métis ☐ CFB ☐ Crown – Disposition #:
Agencies notified: Date:
FIRST duty office (DO) contacted: ☐ Yes ☐ No   If yes, date & time DO was contacted:
DO contact name:

Release Details

Volumes

Substance*	Released ($m^3/10^3\ m^3$)	Recovered ($m^3/10^3\ m^3$)	Disposal/storage location

* For emulsion, break down oil & water if possible.

Description of how the release volume was determined and verified (including calculations; e.g., spill length × width × depth):

Area affected (length × width): _____ m^2

How was the area affected determined? (Aerial survey, perimeter walk, range finder, samples taken, etc.):

Who delineated the spill area (environmental technologist, operator, etc.) and what process was used?

☐ Reminded licensee to update the AER immediately if release volumes or area changes from what was originally reported.

☐ Asked for the immediate submission of photos of the entire spill site to the AER and communicated that photos of the cleanup will need to be submitted with the release report.

Cause of release (suspected or actual):

Impact

Release off lease? ☐ Yes ☐ No (pipeline right-of-way is off lease)

If yes, was the landowner notified? ☐ Yes ☐ No   Name of landowner/agency:

Release within disposition boundary? ☐ Yes ☐ No

Outside disposition – was leaseholder notified? ☐ Yes ☐ No   Name of leaseholder:

☐ If outside disposition, reminded licensee that they will need a TFA.

Actual incident H_2S concentration (if applicable):   % / ppm / mol/kmol

Nearest town:	Distance and direction to town:

Environment affected: ☐ Air   ☐ Land   ☐ Water

Distance of release to the nearest water body, watercourse, or waterway:

How was this distance determined?

Wildlife/waterfowl/livestock affected: ☐ None   ☐ Habitat affected   ☐ Animals injured/killed

Notes/description:

Confirm how the release has been or will be contained:

Confirm how the release has been or will be cleaned up:

Evacuees (#):	People injured (#):	Fatalities (#):

Were members of the public affect? ☐ Yes ☐ No

If yes, indicate if they were

     ☐ notified   ☐ instructed to shelter in place   ☐ advised to evacuate

Notes/description:

Media interest?   ☐ None ☐ Local ☐ Regional ☐ National
Damage to public property?   ☐ Minor/no damage   ☐ Substantial (home covered in oil) ☐ Extensive (home destroyed)

Pipeline Specific		
Hit? ☐ Yes ☐ No	Line #:	Test failure? ☐ Yes ☐ No
Normal operating pressure: kPa		Maximum operating pressure: kPa
Is the pipeline shut in, depressed, and isolated? ☐ Yes ☐ No		
If yes, date & time:		
What is the total volume of liquid in the pipeline?		
Are there isolation valves? ☐ Yes ☐ No If yes, have they been activated? ☐ Yes ☐ No		
Are there any other pipelines that tie into the failed line? ☐ Yes ☐ No If yes, have they been shut in/isolated? ☐ Yes ☐ No		
☐ Reminded the company to contact the AER before excavating the pipeline.		
☐ Reminded, advised, or directed the company that the pipeline is not to be returned to service without the AER's permission.		
Right-of-way (ROW)		
☐ Licensee has confirmed when the pipeline ROW and well were last checked. Date:		
How was the ROW surveillance conducted (from the air, by quad, on foot, using infrared, etc.)?		
☐ Requested that daily production volumes for the well/pipeline be submitted within 24 hours.		
Investigation information		
What operations are currently taking place (containment, sampling, line locating, retaining contractors/consultants, pipeline excavation, repair, site access, EM survey, etc.)?		

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	FORM C
	EMERGENCY INCIDENT FORM
	BC Energy Regulator
	6534 Airport Road
	Fort St. John BC V1J 4M6
	Phone: (250) 794-5200
	emp@bc-er.ca

This is an internal BCER document provided to Industry for reference purposes only.

This document outlines the information that will be requested by BCER emergency management staff following any Level 1, 2 or 3 incident, as defined in the Emergency Management Matrix available on the BCER's website.

	FORM C **EMERGENCY INCIDENT FORM** BCOGC 6534 Airport Road Fort St. John BC V1J 4M6 Phone: (250) 794-5200 emp@bcogc.ca

This form is to be used for emergencies which meet OGC Level 1, 2, or 3 Classification.

The emergency must be reported to the BCER within 1 hour of the incident.
BCER 24 hour Emergency Number: 250-794-5200
EMBC 24 hour Emergency Number: 1-800-663-3456

MISCELLANEOUS INFORMATION		
DGIR #:	Ledger Number:	Kermit Number:
Incident Date (YYYY-MM-DD):		Incident Time (24 hour clock): ☐ PST ☐ MST
Received Date (YYYY-MM-DD):		Received Time (24 hour clock): ☐ PST ☐ MST
INFORMATION OF PERSON REPORTING INCIDENT TO OGC		
Permit holder Name:		Reported by (name):
Phone Number:		Alternate Number:
E-mail:		Fax Number:
INCIDENT DETAILS		

LEVEL OF EMERGENCY

Risk Score: (attach risk matrix)   ☐ Level 1   ☐ Level 2   ☐ Level 3

☐   Informed company they must contact the OGC to downgrade or stand down the level.

SITE TYPE (Select one only)

☐ Well (Active)	☐ Well (Abandoned/Suspended)	☐ Remote Sump

☐ Well (Drilling & Completions): Rig Name:

☐ Battery/Plant/Facility	☐ Tank Farm/Storage	☐ Pipeline
☐ Riser (Pipeline)		

☐ Road or Road Structure: Name: Location on road:

☐ Other -Specify:

INCIDENT TYPE (check all that apply)

☐ Spill (releases and discharges)	☐ Fire/Explosion	☐ Drilling Kick
☐ Worker Injury	☐ Security (theft, threat, sabotage, terrorism)	☐ Induced Seismicity
☐ Well Bore Communication	☐ Pipeline Boring	☐ Vehicle
☐ Equipment/Structural Damage		

☐ Other -Specify:

ACTIVITY (check all that apply)

☐ Construction (road, lease, pipeline, facility)	☐ Drilling/Exploration	☐ Waste Management
☐ Processing (natural gas, petroleum liquids, other)	☐ Well Fracturing	☐ Servicing
☐ Repair	☐ Flaring (emergency)	☐ Well Testing
☐ Pressure testing	☐ Transportation	

☐ Other: Specify:

CONSEQUENCE OR IMPACTS (check all that apply)(If none, leave blank)

☐ Worker Safety (fatality, injuries)	☐ Property (government, public, private)	☐ Economic (loss of and/or damage to equipment or infrastructure, loss of production, work stoppage)

☐ Other -Specify:

AREA INFORMATION

Land Type: ☐ Private Land   ☐ Crown Land   Field Name:

Area Type: ☐ Forest   ☐ Muskeg   ☐ Farmland   ☐ Residential   ☐ Other

Access:	☐ ATV	☐ Helicopter	☐ Four-wheel-drive	☐ Two-wheel-drive	☐ Unknown

Name of road the asset is located on:

Km where the incident occurred:

Distance to nearest residence/public facility:

Nearest City/Town/Open Camp:

CAUSE (check all that apply)

☐ Third Party	☐ Manufacturing Defect	☐ Corrosion (internal, external)
☐ Employee (negligence, procedural, behavioural)	☐ Natural (weather, flood, fire)	☐ Failure (materials, mechanical, equipment, system)
☐ Geological	☐ Over Pressuring Equipment	

☐ Unknown at this time Explain:

☐ Other Factors -Specify:

CAUSE/REMEDIAL ACTIONS

Describe the cause and **remedial actions** in more detail:

WEATHER

Weather Conditions:	☐ clear	☐ cloudy	☐ other

Wind Direction: From: N   NE   NW   E   SE   S   ☐SW ☐W

Wind Strength	☐ calm	☐ moderate	: ☐ strong	☐ gusty

Temperature: °C

Comments:

PUBLIC INJURIES / MEDICAL EMERGENCIES

☐ First Aid	☐ Hospitalization	☐ Fatality

Other:

NOTIFICATION

What government agencies has the permit holder notified?

☐ EMBC	☐ Ministry of Environment	☐ Ministry of Transportation
☐ Public Works	☐ WorkSafe BC	☐ Local Health Authority
☐ Regional/Municipal Authority	☐ RCMP	☐ Ministry of Forest
☐ National Energy Board	☐ Other Specify:	

Permit Holder Instructed to call:

MATERIAL INFORMATION

Is spill off lease? ☐ Yes ☐ No

Spill Material Type: ☐ Corrosive Acid ☐ Emulsion (oil, gas, water)
☐ Fresh Water ☐ Liquid Hydrocarbon (crude, oil, diesel, fuel) ☐ Methanol
☐ Non-Toxic Gases (Nitrogen, Carbon Dioxide, Inert Gases) ☐ Non Toxic Liquids ☐ Salt Water
☐ Sour Natural Gas ☐ Sour Liquid (H2S) ☐ Sweet Natural Gas ☐ Toxic Gas ☐ Toxic Liquid
☐ Other

GAS

Does Material contain any H2S? ☐ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, how much? _____ ppm

Gas Rate:_____ $10^3m^3$3d or mmcfd	Gas Volume :_____ 10^3m^3 or mmscf
Can you hear/smell gas? ☐ Yes ☐ No	Propane/NGLs/LPSs? ☐ Yes ☐ No

LIQUID

Does Material contain any H2S (Oil, water, condensate)? ☐ Yes ☐ No ☐ Unknown ☐ N/A

If Yes, how much? _____ ppm

Liquid Rate:_____ m^3/d or BPD	Liquid Volume :_____ m^3 or bbls or litres

Other (Describe):

Has spill been cleaned up? ☐ Yes ☐ No ☐ N/A

Date of Clean Up/Proposed Clean Up: _____ (mmm dd, yyyy)

Estimated Cost of clean-up: $

SAFETY ISSUES

Hazard Response Zone Size:_____ km

Are responders in danger? ☐ Unknown ☐ No ☐ Yes:

Are public in danger? ☐ Unknown ☐ No ☐ Yes

First Nations Band Affected: ☐ No ☐ Yes Name of Band: _____

Public safety actions taken:

☐ Evacuation ☐ Sheltering **(Instruct Permit holder to contact Local Authority)**

☐ Roadblocks ☐ Do you need or do you have a Closure Order ? **(Instruct Permit holder to contact MOT up to mile 82 on Alaska Highway or Public Works from 82 north on Alaska highway for any public roads, and the OGC for Petroleum Development Resource roads , or Ministry of Forestry for forestry roads)**

☐ Do you need or do you have a NOTAM?

☐ Have you conducted a Transient Survey?

☐ Any Media Releases must be done in conjunction with OGC

☐ Have you or do you need to dispatch a Mobile Air Quality Monitoring **(Instruct Permit holder to contact Health Authority if public are involved)**

☐ Have you or will you need to Ignite?

☐ Have you notified all tenure holders? Non-resident landowners/Trappers/Guide-Outfitters/Range Allotments/Grazing Lease

ASSETS

GEOPHYSICAL PROGRAM (A UTM location is required)

Geophysical #:	Program Name:

Client Name:

UTM (NAD 83): _____ m easting _____ m northing

(Place on the program that incident happened REQUIRED)

SITE (On lease equipment, wells, or facilities) Fill information in for asset with incident.

Location of asset: NTS _____-_____-_____ /_____-_____-_____ or

DLS _____, SEC _____, TWP _____, RGE _____ W6M

OGC Site #:	Site Detail (on lease equipment):

WELL

Well Authorization #:	Status of well:
Depth/Perforation: m KB	Wellbore Fluid Density: kg/m^3

Pit Gain	m	Kill Fluid Density	kg/m³
*SIDPP/SITP	kPa	*SICP	kPa
*RSPP	kPa	Equipment:	
Operating Pressure:	kPa	Shut In Pressure:	kPa

*SIDPP - Shut in Drill Pipe Pressure/SITP – Shut in Tubing Pressure/SICP – Shut in Casing Pressure/RSPP – Reduced Speed Pump Pressure

FACILITIES

OGC Facility Code # :	Equipment on Site :
Design Capacity:	Actual Throughput:
Operating Pressure:	Operating Temperature:

PROJECT (PIPELINES) (A UTM location is required)

Project Location   NTS From _____-_____-_____ /_____-_____-_____

NTS To _____-_____-_____ /_____-_____-_____ or

DLS From _____, SEC _____, TWP _____, RGE _____ W6M

DLS To _____, SEC _____, TWP _____, RGE _____ W6M

UTM (NAD 83):   m easting   m northing

(Place on Pipeline where incident happened REQUIRED)

Project #	Pipeline Segment #
Product:	Line Length between valves: km
ID mm	OD mm
Operating Pressure kPa	Maximum Operating Pressure kPa
ESD or Block Valve Closure? ☐ Yes ☐ No ☐ Unknown	

OTHER LOCATION **(Any asset that does not apply to above such as a road, remote sump, borrow pit, etc)** **(A UTM location must be filled out in the Location Section.)**	
Location Type:	Location Description :
Location of asset: NTS _____-_____-_____ /_____-_____-_____ or DLS _____, SEC _____, TWP _____, RGE _____ W6M	
UTM (NAD 83): m easting m northing REQUIRED	
GPS: Latitude: Longitude:	

BCER	**FORM D** **PERMIT HOLDER POST INCIDENT REPORT**

BRITISH COLUMBIA ENERGY REGULATOR	*Must be submitted by the permit holder within 60 days for:*
	  1. Level 1, 2 or 3 emergency incident*; **and**
	  2. **Any** pipeline incident.
	*Note: in addition to the above a permit holder may be required to complete and submit a "Form D" when requested by a representative of the Regulator.

DGIR# (if known): BCER Incident #:	**This report and accompanying documentation must be emailed electronically to EMP@bc-er.ca**

PART A—PERMIT HOLDER

Permit Holder Name	
Contractor(s) Name(s)	

PART B – DATE, TIME AND OIL AND GAS ACTIVITY IDENTIFICATION OF INCIDENT

Incident Date: *(YYYY/MM/DD)*	Incident Time: *(24-hr system & time zone)*

Well Authorization, Facility Id., Pipeline Project # and Segment #, Road # and Segment #, Other (Describe)

PART C—SPILLS AND RELEASES (*Check all that apply***)**

Type of Product	Volume Released (m³)	Volume Recovered (m³)	Type of Product	Volume Released (m³)	Volume Recovered (m³)
☐ Natural Gas (sweet)			☐ Produced Water		
☐ Natural Gas (sour)			☐ Fresh Water		
☐ Oil			☐ HVP fluids (ethane, propane, butane)		
☐ Condensate			☐ LVP fluids (pentane plus)		
☐ Emulsion					
☐ Other (specify product and CAS# or attach MSDS)					
☐ Other (specify product and CAS# or attach MSDS)					
☐ Other (specify product and CAS# or attach MSDS)					

Was there a fire? ☐ Yes ☐ No	Was there an explosion? ☐ Yes ☐ No
Was anyone directly exposed to the spill product? ☐ Yes ☐ No	Was medical treatment required? ☐ Yes ☐ No (*if yes, complete Part D*)

For any spills where clean-up cannot be completed within 30 days, an initial report / clean-up plan must be submitted within 30 days, with updates every 30 days following until clean-up has been completed.

Has the spill cleanup been completed? ☐ Yes (attach relevant reports) ☐ No (Interim Report or initial clean-up plan attached)

PART D INJURY OR FATALITY? ☐ Yes ☐ No

If yes, describe:

PART E NARRATIVE OF INCIDENT *Provide a complete description of the incident, including conditions and events leading up to, and following, the incident. Attach any additional information that may supplement the narrative such as 1) drawing of the incident site; 2) photographs; 3) schematics; 4) maps; 5) reports (drilling, servicing, etc.).* **Attach additional sheets of narrative as required**.

PART F INCIDENT RESPONSE

Was the Emergency Response Plan Activated? ☐ Yes ☐ No	Was an Incident Action Plan Created? ☐ Yes ☐ No If Yes, attach a copy.

Was an Incident Command System Organization Chart Developed? ☐ Yes ☐ No If Yes, attach a copy.

If the Emergency Response Plan was Activated, describe how the Emergency Response Plan was implemented and outline applicable steps taken to:
- Provide for the safety and health of all responders
- Protect public health and safety
- Protect the environment
- Protect government infrastructure
- Protect property

PART G COMPONENT FAILURE / MALFUNCTION		
Component:	Manufacturer:	Model # or Material and Grade
Manufactured Date:	Installed Date:	Last Certification Date:

Has a third party analysis of the equipment or pipe failure been completed? (Required for Level 2 an 3 Emergencies)   ☐ Yes   ☐ No

If yes, report attached ☐   or report to be submitted at a later date ☐

The analysis report must contain the following: (see guideline for requirements)

PART H REPAIR DESCRIPTION   *Provide a description of all necessary repairs as a result of the incident and include the date of return to service.*

PART I INCIDENT CAUSES *See the Emergency Management Manual, Appendix E: Post Incident Reports, for cause definitions. A full root cause analysis is required for all Level 2 and 3 Emergencies.*

IMMEDIATE CAUSE (Check all that apply)	BASIC CAUSE (Check all that apply)	
☐ Defect and Deterioration	☐ Engineering and Planning	☐ Maintenance
☐ Corrosion and Cracking ☐ Internal ☐ External	☐ Procurement	☐ Tools and Equipment
☐ Equipment Failure	☐ Standards and Procedures	☐ Communication
☐ Incorrect Operation	☐ Supervision and Training	☐ Human Factors
☐ External Interference ☐ Employee / Contractor ☐ Third Party	☐ Natural and Environmental Factors	
☐ Natural Force Damage	☐ Unknown Causes (specify)	
☐ Construction	☐ Other Causes (specify)	
☐ Other Causes *(specify)*		

Provide a justification for the causes selected and any additional details or explanation that will help the Regulator understand the basic cause(s) of this incident.

Attachment(s) ☐

PART J PREVENTIVE AND CORRECTIVE ACTIONS

Outline the changes made and the steps taken and to be taken to prevent a similar incident. This will address the basic causes, as applicable. Identify a schedule for completion. Include any relevant information outlining why the preventive actions are appropriate. See the Emergency Management Manual, Appendix E: Post Incident Reports, for more information.

PART K NAME OF PERSON CONDUCTING A COMPANY INCIDENT INVESTIGATION

Name and Title	Address
Phone Number	Email

PART L NAME AND TITLE OF COMPANY REPRESENTATIVE FILING REPORT

Name	Title
Signature	Company
Address	

Date *(YYYY/MM/DD)*	Phone number ( )	Email

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Date:	Prepared By:
Time (24hrs):	ICS Position:
IAP Checklist Items:	**Comments:**
☐ ICS 202 – Incident Objectives	
☐ ICS 207a – Incident Organizational Chart	
☐ ICS 209 – Incident Status Summary	
☐ ICS 215 – Operational Planning Worksheet	
☐ ICS 215a – Incident Action Plan Safety Analysis	
☐ Map:	
☐ Map:	
☐ Map:	
☐ Other:	
☐ Other:	
☐ Other:	
Notes:	

IAP Approved By:

Name: _____ Signature:_____

ICS Position:_____

(Incident Commander or Director)

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A5 - AIR MONITORING LOG

Date:		Prepared By:						Responder Position:		
								Wind Conditions		
Time (24 Hrs)	Location of Samples	H_2S (ppm)	LEL (%)	O_2 (%)	SO_2 (ppm)	Other	TEMP (°C/°F)	Direction (FROM) (i.e. From the NW to the SE)	Speed (km/hr or mph)	Comments

Estimate meteorological conditions where accurate readings are not available.

A5 - AIR MONITORING LOG

Time (24 Hrs)	Location of Samples	H₂S (ppm)	LEL (%)	O₂ (%)	SO₂ (ppm)	Other	TEMP (°C/°F)	Wind Conditions*		Comments
								Direction (FROM) (ie. From the NW to the SE)	Speed (km/hr or mph)	

Estimate meteorological conditions where accurate readings are not available.
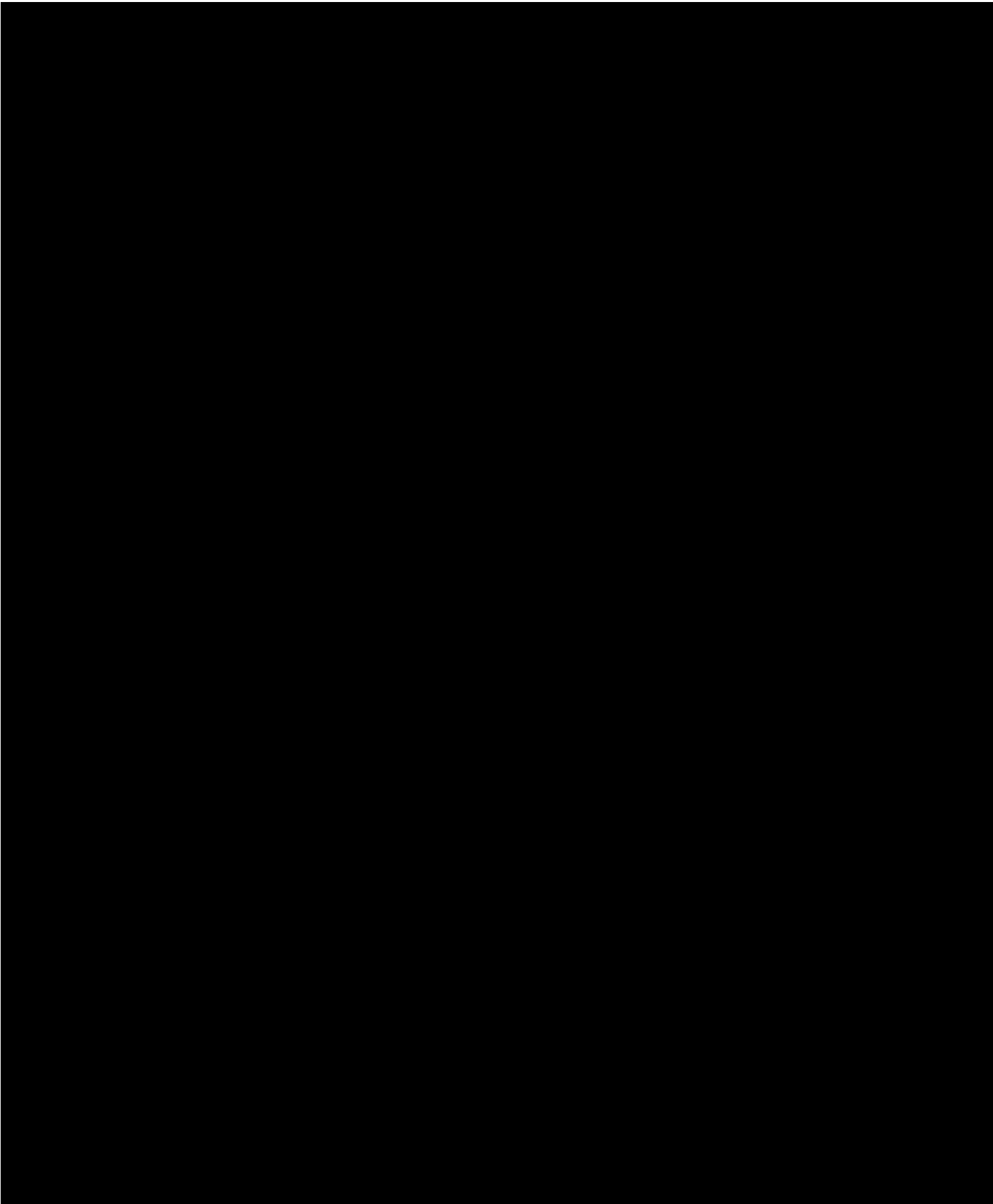
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STARS®

LANDING ZONE INFORMATION CARD.

STEP 1
Advise your dispatch centre which channel you will be using to communicate with STARS.

STEP 2
Select an area for the landing zone that is downwind from the incident site (unless hazardous materials or gases are present).

WIND DIRECTION

INCIDENT SITE
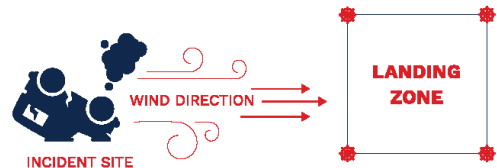
LANDING ZONE

STEP 3
Select an area for the landing zone that is a minimum of 72 metres (or 236 feet, or 72 paces) from the incident site.

72 METERS
(236 FEET OR 72 PACES)

INCIDENT SITE

LANDING ZONE

STEP 4
Select a flat, level surface for the landing zone; preferably pavement or concrete, if available.

HILL

HILL

ROAD
(SAFE AREA)

DITCH

STEP 5
Ensure the landing zone area is clear of wires, poles, trees and debris.

STEP 6
Mark out a 36 metre by 36 metre (120 feet x 120 feet, or 36 paces x 36 paces) square, and mark the corners with LED beacons, heavy pylons or any other bright conspicuous objects easily seen from the air.

36 METERS

36 METERS

LANDING ZONE

36 METERS

36 METERS
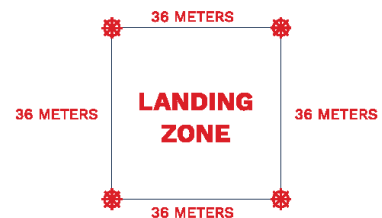
STEP 7
Brief STARS crew via radio or cell phone and stand at the middle of the upwind side of the landing zone with the wind at your back.

Monitor radio frequency to communicate with the STARS team.

As the helicopter approaches, go down on one knee and DO NOT MOVE from your position.

Do not approach the helicopter at any time unless escorted by the STARS crew.

LANDING ZONE HAND SIGNALS

ALL CLEAR TO LAND   ALL CLEAR TO DEPART   ABORT LANDING

cenovus ENERGY

STARS®
✳ LANDING ZONE BRIEFING FOR STARS CREW.
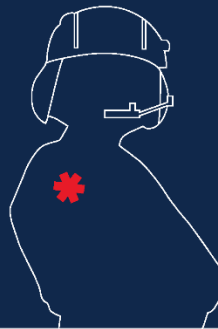
✳ STEP 1
Identify yourself and confirm the Landing Zone Officer is present with the landing zone secure.

✳ STEP 2
Communicate the location of the landing zone using N/E/S/W to reference the accident scene or other landmarks.

✳ STEP 3
Identify the type of surface for the landing zone (field, road, other).

✳ STEP 4
State what marking the corners of the landing zone: LED beacons, heavy pylons or any other bright conspicuous objects easily seen from the air.

✳ STEP 5
Communicate the wind direction and approximate speed.

✳ STEP 6
Identify the hazards in the area of the landing zone such as wires, poles, trees, or hazardous materials using N/E/S/W in reference to the landing zone.

WIND DIRECTION

LZ OFFICER

SAFETY AREA

APPROACH ROUTES

DO NOT ENTER DO NOT ENTER

SAFETY AREA

36m (120 Ft)
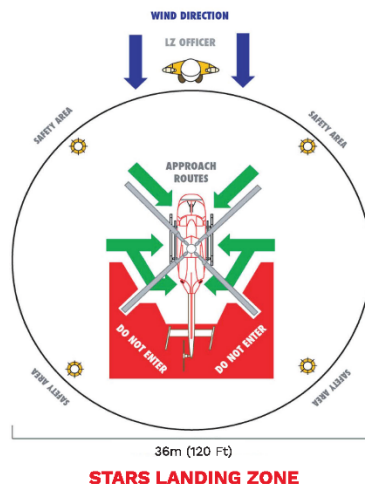
STARS LANDING ZONE

SPECIAL CONSIDERATION

Remove any loose debris and indicate if there is snow or dust in the landing zone. If dusty, water down the landing zone if possible prior to the helicopter's arrival. As marshaller, maintain your position at the middle of the upwind side of the landing zone, knees and **DO NOT MOVE** from your position as the helicopter lands.

If you have any questions or comments regarding this landing zone information card or would like to watch our landing zone video, please visit **www.stars.ca**

INDUSTRY EMERGENCY LINE 1-888-888-4567
This number can also be used to provide a landing briefing to the STARS crew if radio communications are not available.

WE ARE ALL **STARS**®

SITE NUMBER: _____ **LOCATION:** _____

Contact the appropriate agency to verbally notify of the environmental emergency. This form can be used for record keeping purposes.

ENVIRONMENTAL EMERGENCY CONTACT NUMBERS

Alberta	Alberta Ministry of Environment	780-422-4505 1-800-222-6514
British Columbia	British Columbia Provincial Emergency Program, Ministry of Public Safety and Solicitor General	1-800-663-3456
Saskatchewan	Saskatchewan Ministry of Environment	1-800-667-7525

Telephone number accessible only within the respective province.

AGENCY CONTACT INFORMATION

Date:	**Time:**
Contact Name:	
Phone:	
Email:	
Time of Next Update *(24-hour):*	

CENOVUS CONTACT INFORMATION

Name of person reporting the incident:
Office:
Cell:
Email:

INCIDENT DETAILS

Date of the Release:	
Time of the Release *(24-hour):*	
Location of the emergency *(decimal degrees to five decimal places)*	**Lat. _____ Long. _____** **If applicable, civic address of release location:**
Name of the Substance released:	
CAS registry number of the substance released:	
UN number:	
Quantity of the substance released: Is this an Estimate? ☐ Yes ☐ No	
Total quantity of substance prior to release:	
Means of containment (from which substance was released):	

PRELIMINARY IMPACT

Evacuees (#):	Injuries (#):	Fatalities (#):

Environment Affected: ☐ Air ☐ Water ☐ Land

Wildlife/livestock affected? ☐ Habitat affected ☐ injured/killed ☐ Unknown ☐ No

Potential impact of release:

Current weather or geographic conditions:

Cause of release *(if known)***:**

Current actions taken or planned *(if known)***:**

Other agencies notified:

A written report must be submitted to the Regional Director, Environmental Enforcement Directorate, Enforcement Branch, Department of the Environment, in the region where the environmental emergency occurred, as well as be submitted electronically to the Minister *(complete Form A9 – CEPA E2 Notification of an Incident)*.

Schedule 8 – Written Report of Environmental Emergency

This report is to be provided to the Regional Director, Environmental Enforcement Directorate, Enforcement Branch, Department of the Environment, in the region where the environmental emergency occurred, as well as be submitted electronically to the Minister.

CONTACT INFORMATION

1.	Name of Report Submitter	Civic Address	Contact Information
	Name Signature _____		Office: Cell: Email:
2.	Name of person responsible for facility	Civic Address	Contact Information
	Name Signature _____		Office: Cell: Email:

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM CODE

3.	NA Classification	
	Code	Industry
☐	21111	Oil and gas extraction (except oil sands)
☐	21114	Oil sands extraction
☐	48611	Pipeline transportation of crude oil
☐	48621	Pipeline transportation of natural gas
☐	48910	Pipeline transportation of refined petroleum products
☐	48699	All other pipeline transportation
☐	49319	Other warehousing and storage

INCIDENT DETAILS

4.	Date of the Release *(dd/mm/yy):*	
	Time of the Release *(24-hour clock):*	
	Location of the emergency *(decimal degrees to five decimal places)*	Lat. _____ Long. _____ If applicable, civic address of release location:

SUBSTANCE INFORMATION

5.	Name of the Substance released:	
	CAS registry number of the substance released:	
	UN number:	
6.	Total quantity of the substance released: OR Estimated quantity of the substance released:	
7.	Description of the container from which the substance was released: Description of the condition of the container from which the substance was released:	
8.	Description of the harmful effects or potential harmful effects of the environmental emergency on the environment and on human life or health, including effects on any surrounding hospitals, schools, residential, commercial or industrial buildings, highways, public transit infrastructure, parks, forests, wildlife habitats, water sources or water bodies.	
9.	Description of the circumstances and of the cause of the release (if known) and of the measures taken to mitigate any negative effects on the environment or on human life or health:	
10.	All measures taken or planned to be taken to prevent similar releases:	

Due to travel and time constraints, Cenovus may not always be able to have a company employee at the Reception Centre before evacuees begin arriving. In this case, this cover page can be included with the form on the next page and sent to a representative at the Reception Centre to provide them with guidance on how to register and track evacuees until a company representative arrives.

Cenovus requires your assistance with receiving evacuees at the following Reception Centre:

Your company contact is:

Name: Position: :   Contact Number:

Evacuee Registration Guidelines:

1. Record all evacuees as they arrive on the forms provided.
2. Provide all evacuees with the statement below and any other status updates as provided by your company contact.
3. Provide the evacuees with food and lodging as required.
4. Record if any evacuees choose to leave the Reception Centre (name, contact number, where are they going, etc.).
5. Continually update the company of any residents arriving at or leaving the Reception Centre so that they can follow up on any residents that are unaccounted for.

Statement to Provide to Residents as they arrive (Must be provided by Cenovus Communications 1-403-766-7751):

Date: _____   Responder Name: _____

Responder Position: _____   Responders Phone No.: _____

Resident ID	Name (List All Names in Party)		# Of Occupants	Number Arrived	Arrival Time	Depart Time	Destination Phone #	Comments
	First	**Last**						

B2 - RESIDENT COMPENSATION LOG

cenovus ENERGY

EMERGENCY RESPONSE PLAN

Please attach all receipts to this form. Items without receipts may not be compensated.   Date: _____

RESIDENT INFORMATION

Resident's Name:	Location of Residence / Business:	Mailing Address	Address Evacuated to:
Home Telephone #:			
Cell Phone:			
Other Contact:			
Number of Residents Evacuated:			

COMPANY INFORMATION

Contact Name: _____   Contact Phone Number: _____

No.	Date	Location	Trans.	Accom.	Meals	Phone	Sundry	TOTAL	Details of Expense
TOTAL REPORTED EXPENSES									

PRIVILEGED AND CONFIDENTIAL   **SECTION 6: FORMS**   **PAGE 6-75**

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B3 - RESIDENT CONTACT LOG

cenovus ENERGY

Date: _____   Responder Name:_____

Responder Position: _____   Responders Phone No.: _____

Time	Resident Name	Ref. No. on Map for Residence	Shelter / Evacuate	Number of People		Assistance or Transportation Required?		Comments
				Inside	Outside			
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	
			☐ Shelter ☐ Evacuate			☐ Yes	☐ No	

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B4 - ROADBLOCK LOG

Only emergency responders should be allowed to enter the Emergency Planning Zone (EPZ).

Date: _____   Responder Name:_____

Responder Position: _____   Responders Phone No.: _____

Vehicle Type	License Plate Number and Province / State	Name of Driver (if available)	Number of People in Vehicle	Time Entering Zone	Time Exiting Zone	Comments (Record all vehicles turned away)

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Date of Notice: _____

Time Notice Delivered: _____

EVACUATION NOTICE

Cenovus Energy Inc. has an emergency at its nearby location:

_____

As a safety precaution, please leave the area in a

_____ direction and proceed to the

Reception Centre located at:

_____.

Cenovus representatives will be available at the Reception Centre

to address your questions or concerns.

For assistance or additional information, contact Cenovus at

_____.

Thank you for your cooperation.

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Before calling, determine a safe evacuation route for the residents to travel, away from the emergency hazard area, upwind if possible, towards the reception centre.

Hello, this is *your name* calling from Cenovus Energy Inc.

Is this the *Name of residence / business* ?

Cenovus is responding to a *(potential)* emergency **Location** in your area.

You are in no danger at this time. All efforts are being made to resolve the problem and this phone call is only to inform you and provide you with an early notification.

To help us understand your immediate needs we need to know:

How many people are at your location now?

   Adults: *Number of Adults*   Children: *Number of Children*

Do you wish to leave your residence at this time?

If Yes:

Please travel in a *North / East / South/ West* direction to our reception centre located at:

_____

If No:

Please standby for further contact. Please do not use your telephone for outgoing calls as this may prevent us from contacting you with updated information or when the problem has been eliminated.

Do you understand this message? ☐ Yes   ☐ No

If you have urgent questions, please contact:

Name: *Cenovus Contact* Phone Number: *Phone Number*

   Thank you for your cooperation.

Pass on all information regarding this call to the Public Protection Supervisor immediately

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Hello, this is   [your name]   of Cenovus Energy Inc.

Is this the   [person's name]   residence? Cenovus is responding to a (potential) emergency at [location]   in your area. For your safety, it is extremely important that you, and those with you, stay indoors until the potential hazard no longer exists, or you are advised to evacuate. To help us understand your immediate needs, we need to know:

How many people are at your location now?   Adults _____   Children _____

Is there anyone in your household that you cannot contact to inform them of the situation and advise them to get indoors or stay out of the area?   ❑ Yes ❑ No

▶   **If Yes**

Who:_____

Location of the person(s): _____

"We will send someone to find them as soon as possible".

Do you have children in school at this time?   ❑ Yes ❑ No

▶   **If Yes**

What school?   _____

Children's names _____

"We will contact the school to ensure the safety of your children. Buses will be directed to leave the area immediately. If school is in session, your children will be redirected to the reception centre by their regular bus driver when the school day is over."

Do you have the "Shelter-in-Place" instructions previously provided to you by Cenovus?

❑ Yes ❑ No

If Yes   Please follow the Shelter-in-Place instructions located inside the resident pamphlet.

If No   Verbally walk the resident through the Shelter-in-Place instructions on the next page.

Do you understand what I have told you?   ❑ Yes ❑ No

Is there an alternate number we can contact you at? _____

If you have any urgent questions, please contact:

Name: _____ Phone Number: _____

Thank you for your cooperation.

Pass on all information regarding this call to the Public Protection Supervisor immediately.

SHELTER-IN-PLACE INSTRUCTIONS

For your safety:

- Immediately gather everyone indoors and stay there

- Close and lock all windows and outside doors
    - If convenient, tape the gaps around the exterior door frames

- Leave open all inside doors

- Extinguish indoor wood burning fires
    - If possible, close flue dampers

- Turn off appliances or equipment that either:

    - Blows out or uses indoor air, such as:
        - Bathroom and kitchen exhaust fans
        - Built-in vacuum systems
        - Clothes dryers
        - Gas fireplaces and gas stoves

    - Sucks in outside air, such as:
        - Heating, ventilation and air conditioner (HVAC) systems for apartments, commercial or public facilities
        - Fans for heat recovery ventilators or energy recovery ventilators (HRV / ERV)

- Turn down furnace thermostats to the minimum setting and turn off air conditioners

- Avoid using the telephone, except for emergencies, so that you can be contacted by company emergency response personnel

- Call the company emergency numbers you have been provided:
    - If you are experiencing symptoms or smelling odours (so that we can address your concerns and adjust our response priorities)
    - If you have contacted fire, police or ambulance (so that we can coordinate our response)

- Stay tuned to local radio and television for possible information updates

- Do not leave your residence, even if you see people outside, until you are told to do so

- After the hazardous substance has passed through the area you will receive an "all-clear" message from the company emergency response personnel. You may also receive, if required, instructions to:
    - Ventilate your building by opening all windows and doors; turning on fans and turning up thermostats. During this time the air outside may be fresher and you may choose to leave your building while ventilating.
    - Once the building is completely ventilated return all equipment to normal settings & operation.

Do not leave your sheltered location or attempt to start any vehicle until a company representative advises you that the area is safe.

If you are unable to follow these instructions, please notify company emergency response personnel.

Before calling, determine a safe evacuation route for the residents to travel, away from the emergency hazard area, upwind if possible, towards the reception centre.

Hello, this is   [your name]   of Cenovus Energy Inc.

Is this the   [person's name]   residence?

Cenovus is responding to a *(potential)* emergency at   [location]   in your area.

For your safety, it is extremely important that you and your family leave your residence immediately and travel in a   [north / east / south / west]   direction to our reception centre located at:

_____

To help us understand your immediate needs, we need to know:

How many people are at your location now?   Adults _____   Children _____

Is there anyone in your household that you cannot contact to inform them of the situation and advise them to evacuate away from the area? ❏ Yes   ❏ No

IF YES   Who?   _____

                Location of the person(s)   _____

                "We will send someone to find them as soon as possible".

Do you have children in school at this time? ❏ Yes   ❏ No

IF YES   What school? _____

                Children's names _____

                "We will contact the school to ensure the safety of your children. Buses will be directed to leave the area immediately. If school is in session, your children will be redirected to the reception centre by their regular bus driver when the school day is over".

Do you require evacuation / transportation assistance? ❏ Yes   ❏ No

IF YES   We are sending someone to assist you. Please stay indoors and close all doors and windows until a Rover or the local police arrive to evacuate you.

IF NO   Provide the resident with:

- Directions to safely travel to the reception centre

- A list of items to bring with them to the reception centre (medications, cell phone, etc.)

- An idea of how long they may be expected to stay at the reception centre

- The option to bring their house pets to the reception centre

---

Is there an alternate number we can contact you at? _____

Please contact

Name: _____ Phone Number: _____

If you are unable to make it to the reception centre for any reason. Please keep your phone line free so that we can contact you if necessary.

A company representative at the reception centre will address any questions you may have and will make arrangements for your temporary accommodations.

Do you understand everything I have told you? ❑ Yes ❑ No

Are you leaving immediately? ❑ Yes ❑ No

If you have any urgent questions, please contact

Name: _____ Phone Number: _____

Thank you for your cooperation.

Pass on all information regarding this call to the Public Protection Supervisor immediately

Family Name:	Phone Number:		
Student Arrival			
List all students in the family arriving by school bus.			
Students (Please Print)	Arrival Time (24 Hrs)	School Bus Driver	
		Print Name	Signature
1.			
2.			
3.			
4.			
5.			
6.			
Parent(s) Contact			
Parents Contacted? ☐ Yes ☐ No		Time (24 Hrs):	
Contacted by:		Estimated Pick-up Time (24 Hrs):	
Temporary Care			
Are care arrangments necessary? ☐ Yes ☐ No			
Location of temporary care:			
Contact Person:		Phone Number:	

Student Release

List all students in the family being released to parents.

Students (Please Print)	Release Time (24 Hrs)	Parent or Legal Guardian	
		Print Name	Signature
1.			
2.			
3.			
4.			
5.			
6.			

Reception Centre Staff

Print Name	Signature

<p style="color:red">FOR USE BY DESIGNATED MEDIA SPOKESPERSON ONLY</p>

. .

Note: Only a trained and authorized Media Spokesperson designated by Communications is authorized to provide any specific information to the public or the media.

Anyone not a Designated Media Spokesperson should use the "Response to the Media During an Emergency" holding statement on the following page.

Date: Date	Spokesperson Name:
Spokesperson Position:	Spokesperson Phone No.:

This is the information I can give you so far:

At ***Time*** on ***Date***, a(n) ***Fire, Explosion, Gas Release*** occurred at the Company's ***Site Name*** site, located ***Distance*** kilometres ***East / West / North / South*** of ***Nearest town or city***.

Presently, ***Number of Personnel*** workers are being treated for injuries. The names and condition of the injured cannot be released until their families have been contacted.

The ***Well Site/ Plant/ Pipeline/ Office*** has been ***Shut down / Isolated / Still Flowing.***

Company response personnel have been activated and are directing emergency response procedures to protect the public, our workers and the environment.

The cause of the ***Fire/ Explosion/ Gas Release/ Spill*** is not yet known, and no estimate of damage is available.

As information becomes available, news releases will be issued from Cenovus Energy Inc.'s Calgary Head office.

<p style="text-align:center">Any further inquiries should be directed to</p>

<p style="text-align:center">the Cenovus 24 Hour Calgary Media Line 1-403-766-7751</p>

Cenovus Response to Media Spokesperson:

"I am not the appropriate person to speak with you about this issue.

Please provide me with you name, phone number, and the name of your media outlet and I will find someone right away who has more information about what's happening.

That person will call you back to answer your questions.

Alternatively, please contact
the Cenovus 24 Hour Calgary Media Line at 1-403-766-7751"

If you feel you are not the appropriate person to be answering the media questions, use the following statement:

I am not the appropriate person to speak with you about this issue. Please provide me with you name, phone number, and the name of your media outlet and I will find someone right away who has more information about what's happening. That person will call you back to answer your questions. Alternatively, please contact the Cenovus 24 Hour Calgary Media Line at 1-403-766-7751"."

Date: _____   Responder Name: _____

Responder Position: _____   Responder Phone No.: _____

Document all key events, conversations, and meetings on this form. Where lengthy notes are necessary, use additional copies or the back of the page.

Time	Call To	Call From	Media Outlet	Reporter / Contact Name	Contact Number	Remarks / Information Required

Time	Call To	Call From	Media Outlet	Reporter / Contact Name	Contact Number	Remarks / Information Required

If you feel you are not the appropriate person to be answering the government agency representative's questions, use the following statement:

I am not the appropriate person to speak with you about this issue. Please provide me with you name, phone number, and the name of your organization and I will find someone right away who has more information about what's happening. That person will call you back to answer your questions. Alternatively, please contact the Cenovus 24 Hour Calgary Media Line at 1-403-766-7751"."

Date: _____ Responder Name: _____

Responder Position: _____ Responder Phone No.: _____

Document all key events, conversations, and meetings on this form. Where lengthy notes are necessary, use additional copies or the back of the page.

Time	Call To	Call From	Agency	Contact Name	Contact Number	Remarks

Time	Call To	Call From	Agency	Contact Name	Contact Number	Remarks

Location:	
Address:	
City/Town:	
Contact name:	
Mobile number:	
Office number:	
Home number:	
Map or Directions to Site:	

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SECTION 7: APPENDICES

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APPENDIX A: ERP TRAINING AND PLAN MAINTENANCE

Symbol Legend

There are several symbols used throughout the ERP to direct the reader's attention to important notes, regulatory requirements, reference materials, key contact information, websites, and sections of the ERP that contain further information. The table below includes each symbol and its meaning.

SYMBOL	MEANING	SYMBOL	MEANING
Procedure Section 4:	Refer to the procedure in the noted section.	⚠ *Regulation*	Regulatory requirement.
See Appendix	Refer to the reference material provided in the Appendix section.	*Contact*	Contact information.
See SDS	Refer to the Safety Data Sheet (SDS) on-site for further information.		
www	A website link is provided to access further information.	FORM FX	Refer to the specified form in Section 6: Forms.

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Sustainability Policy

Owner: VP, Sustainability & Engagement

Effective date: November 30, 2010
Last updated: April 28, 2020
Last reviewed: April 28, 2020

Formerly known as the Corporate Responsibility Policy

Purpose

At Cenovus, our actions are guided by our Sustainability Policy. We conduct our business in a responsible, transparent and respectful way and comply with applicable laws and regulations.

Sustainability is embedded in how we do business. It means addressing our greenhouse gas (GHG) emissions, innovating to minimize our impact on the environment, creating a safe and inclusive workplace and partnering with local and Indigenous communities. We believe striking the right balance among environmental, economic and social considerations creates long-term value and resilience.

Scope

The Sustainability Policy applies to the Cenovus Board of Directors and all employees, as well as contractors and service providers who perform activities for, or on behalf of, Cenovus.

This policy applies to any of our activities associated with the exploration, production, refining, transportation and storage of our products, including the decommissioning of facilities, marketing and other business and administrative functions.

Policy Statements

Our activities are aligned with, and guided by, the following focus areas.

Leadership and Governance

Cenovus is committed to maximizing value by sustainably developing our assets in a safe, innovative and cost-efficient manner, while integrating environmental, social and governance considerations into our business plans.

We maintain, promote and enforce high standards of integrity and leading corporate governance practices in all aspects of our business.

Cenovus's Board of Directors is responsible for the governance of the company's sustainability commitments. Cenovus's Leadership Team is accountable for implementing the sustainability commitments by ensuring that performance expectations are consistent with the principles of this Policy, the Code of Business Conduct & Ethics and Cenovus's values of safety, integrity, performance and accountability. The expectations are communicated across the company's workforce.

The company links compensation for all employees to an annual scorecard that includes financial, operating, and safety and environmental performance metrics.

We apply a risk-based approach to drive the identification, measurement, prioritization and management of environmental, social and governance related risks.

Cenovus sets clear accountabilities and regularly assesses the performance of its employees, contractors, suppliers and service providers to help ensure they are acting in a manner that reflects our values.

We have emergency management protocols in place to reduce the potential impact on the company, our stakeholders, the environment, wildlife and surrounding communities, as well as our assets, financial condition and reputation.

People

Cenovus values safety above all else. The health and safety of all workers involved in our activities, as well as residents of the communities where we work, is a core value at Cenovus, and is reflected in our standards, policies and practices, including our Safety Commitments.

We treat our staff members with dignity, fairness and respect. We also follow applicable occupational health and safety legislation and industry recommended practices and adhere to all applicable workplace, employment and human rights standards. In addition, we support the principles of the Universal Declaration of Human Rights.

At Cenovus, we invest in our people, ensuring individuals and teams have the required skills, knowledge and expertise to deliver on Cenovus's strategy and business plan while striving for continuous improvement.

We are committed to providing equal opportunity based on merit and support a diverse and inclusive workplace focused on providing an environment where people feel respected, valued and listened to.

Environment

Cenovus integrates environmental considerations into our business plans, spending decisions, performance management, project development, operations, communications and stakeholder relations.

We pursue measurable and meaningful targets in the environmental areas of:

- Climate & GHG emissions
- Land & wildlife
- Water stewardship

We track and report on a broad range of environmental metrics as part of our commitment to environmental stewardship and continuous improvement.

The company is committed to limiting our impact on the climate, air, land and water by investing in technology and continuously improving our operating practices. We believe in collaborating with our peers, industry associations and entrepreneurs to find innovative solutions to minimize our impact on the environment and maximize business value.

Stakeholder Engagement

Cenovus builds positive relationships with stakeholders through communication based on honesty, trust and respect.

We work to address stakeholder issues and concerns using our core values to guide our conversations.

Cenovus is also committed to transparency through ongoing engagement and communication with various stakeholders, including residents of communities near our operations.

Indigenous Engagement

At Cenovus, we build and maintain positive and mutually beneficial relationships with local Indigenous communities, respecting their treaty and Indigenous rights. We believe this approach is consistent with the United Nations Declaration on the Rights of Indigenous People (UNDRIP).

We are committed to the inclusion of Indigenous people in our business through employment and business opportunities. This includes a target related to the amount of work we do with Indigenous businesses. These opportunities help neighbouring communities share in the benefits that come from responsibly developing oil and natural gas resources.

Cenovus provides opportunities for our staff members to increase awareness of Indigenous history and culture.

Community Involvement and Investment

Cenovus strives to create a positive impact for both the community and our business.

We invest in organizations and initiatives that increase people's quality of life in the communities where we live and work.

Cenovus develops community partnerships based on collaboration and understanding the needs of the community. We look beyond financial resources and consider how to make the best use of our assets, expertise and relationships when providing support to communities.

Cenovus encourages the active contribution to communities by our employees by providing diverse opportunities to give and volunteer.

Support

Please contact Sustainability & External Engagement for questions related to this Policy.

Related Resources

- [Code of Business Conduct & Ethics](#)
- [Sustainability INC page](#)

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TRAINING REQUIREMENTS

IMT Personnel (Pure ICS)	IST Personnel (Modified ICS)

ALL Personnel Responding in an ICP
 	
Base Training:
 	
   • ICS 100 (online)
   • ICS 200 (facilitated)
 	
Exercise Requirements:
 	
   • Tabletop Exercise
   • Full Scale Exercise (when required)
	ALL Personnel Responding in the EOC
	
	Base Training:
	
	   • IST Orientation (facilitated)
	   • EOC Orientation (facilitated)
	   • ICS 100 (online)
	   • ICS 200 (facilitated)
	   • Role-Specific Training (facilitated)
	
	Exercise Requirements:
	
	   • Full Scale Exercise
	   • Participation in a minimum of 1 exercise per year is required to maintain currency

IMT Command and General Staff
 	
Base Training:
 	
   • ICS 100 (online)
   • ICS 200 (facilitated)
 	
Exercise Requirements:
 	
   • Tabletop Exercise
   • Full Scale Exercise (when required)
	IST Command and General Staff
	
	Base Training:
	
	   • IST Orientation (facilitated)
	   • EOC Orientation (facilitated)
	   • ICS 100 (online)
	   • ICS 200 (facilitated)
	   • Role-Specific Training (facilitated)
	
	Exercise Requirements:
	
	   • Full Scale Exercise
	   • Tabletop Exercise
	   • Participation in a minimum of 1 exercise per year is required to maintain currency

EXERCISE REQUIREMENTS

Exercise Type	Drill	Tabletop	Functional	Full-Scale
AER	As needed	Annually	As needed	Every three years
BCER	As needed	Annually	As needed	Every three years
CER	As needed	Annually	As needed	Every three years
ECCC	As needed	Annually	As needed	Every 5 years

NOTE - External stakeholders are invited to all applicable exercise events, where information is shared, and cross-training occurs regarding specific response capabilities and assignments. Relationships are built between Cenovus staff and the participating / supporting agencies, including municipalities, fire and police departments, emergency management agencies and mutual aid organizations to better enable effective coordination and cooperation when emergency events occur.

PLAN MAINTENANCE

Responsibility

The licensee is responsible to ensure that an ERP is created for all provincial and federally regulated oil and gas activities (i.e. sour operations, HVP pipelines, cavern storage facilities, etc.), they are maintained regularly, and any updates are disseminated to the regulatory agency and other plan holders as required. In order for this to occur the following responsibilities are designated:

- Each individual plan holder is responsible for ensuring their assigned manuals are current, all updates are applied / downloaded / inserted, and any errors or omissions are reported to a supervisor.

- Business or Functional Leaders are responsible for ensuring that an annual review of their ERP is conducted. The ERP Revision Request Form is located in this section and can be used to track this information and provide documentation in the case of an ERP assessment. Any of the following events will trigger an ERP update:
    o Changes to emergency information (e.g., contact phone numbers).
    o New mapping information.
    o New resident information.
    o Changes to response staff information or response capabilities.
    o Facility additions such as well or pipeline tie-ins that do not require submission of a supplement. Before starting operations, the duty holder is expected to update its approved ERPs with information about on- and off-site emergency response team personnel

- Any requests for revisions to this plan should be forwarded to the applicable Area Manager for review. These revisions will be discussed with the company's Emergency Response Program Coordinator and H_2Safety Services Inc. Any significant changes including those resulting from exercises and incidents will require immediate updates sent out to all plan holders; less significant changes will be implemented during the ERP's next annual update.

- The IEM Program Steward is responsible for ensuring that the plans and distribution lists are updated, training is performed, and new projects are included in the plan. Information in this plan will be verified and updated at least once a year.

- Old manuals must be sent to H_2Safety Services Inc. or be destroyed. If a plan holder no longer requires their manual (job changes, position changes, etc.), it must be returned to the company's IEM Program Steward to be tracked, reassigned, or destroyed.

The licensee must distribute changes in information that are instrumental to implementing the ERP to all required plan holders.

Errors identified in the ERP by the regulatory agency, licensee, and other party must be corrected immediately upon identification.

Modifications To New Or Existing Operations

The licensee must submit a supplement for review and approval to the regulatory agency for all newly added wells, pipelines, well / pipeline tie-ins, facilities and operating areas prior to commencement of operations if there are new surface developments within the Emergency Planning Zone. For example, the EPZ for a new pipeline tie-in does not fall entirely within the existing Emergency Planning Zone and impacts a new residence / public facility / trapper cabin / etc. that was not previously included in the Emergency Response Plan. The licensee must conduct a public involvement program for all new members of the public. Before any new or major modifications to an existing facility / pipeline are brought on-stream, any additions or changes will be added to the Emergency Response Plan. If required, a site-specific Emergency Response Plan will be developed. Meetings to review response plan requirements must be held before major facility modifications are commissioned.

ERP Revision Request Form

Plan Holder Name / Title / Company:_____

ERP Name:_____

Manual Number:_____.

If any of the following items have changed, please check the box beside it and provide a description of the change in the space provided.
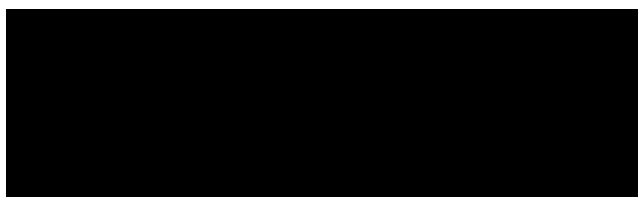
☐ Company information
☐ Mapping information
☐ Resident contact information
☐ Response staff information or capacity changes
☐ Facility additions, such as well or pipeline tie-ins
☐ Other

Description of the change:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Please attach additional pages and / or support documentation as required.

Please return the completed checklist to:

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APPENDIX B: COMMUNICATION METHODS BETWEEN COMMAND POSTS

ALBERTA / SASKATCHEWAN / MANITOBA

On-Site Command Post

An On-Site Command Post (OSCP) will be established in a safe location near the site of the emergency. All control, containment, and site safety activities will take place at this location.

- Landline
- Cell phone
- Satellite Phone
- Radio
- Email

Incident Command Post

The Incident Commander will manage the overall response to the emergency from this post. This includes overseeing and assisting the Operations Section Chief who will be directing all on-site control and containment activities from the Incident Command Post (ICP).

The ICP will be established near the site of the emergency, but outside of the hazard area.

- Landline
- Cell phone
- Email

- Landline
- Cell phone
- Satellite Phone
- Radio
- Email

Emergency Operations Centre

A corporate Emergency Operations Centre (EOC) is usually established at a level two (2) emergency. This is the centre where head office support activities are coordinated. The centre is equipped with the tools, accessibility and space to accommodate the Incident Support Team and support personnel.

Government Regional Emergency Operations Centre

If it is taking a considerable amount of time to bring an emergency under control or if the external support requirements are substantial, the appropriate government agency will establish a REOC in the area.

If the licensee or local authority decide not to set up a Regional EOC during a response, the regulatory agency may set up an EOC at the local regulatory agency field centre.

Regulatory agencies encourage the combination of industry and municipal responses into a single Regional EOC if possible.

Industry Regional Emergency Operations Centre

If established, the Public Safety Supervisor may coordinate public notification and evacuation activities from this post. The REOC will most likely be established at the nearest primary facility or field office. The Incident Command Post and the REOC may be in the same location.

- Landline
- Cell phone
- Email

Provincial Operations Centre

The Provincial Operations Centre (POC) is the headquarters of, and will be established by, the Provincial Emergency Management Agency during the initial stages of an incident.

During an emergency, government agencies will send Consequence Management Officers (CMOs) to the POC who are able to speak for, and commit resources on behalf of their departments.

The POC has the capability of accessing provincial, federal and other resources necessary to support the emergency response.

- Landline
- Cell phone
- Email

Municipal Emergency Operations Centre

A Municipal Emergency Operations Centre (MEOC) is established by the local authority when required and is encouraged to have joint response with industry.

Possible Communication Devices

| Industry | Government | Combined |

BRITISH COLUMBIA

On-Site Command Post

An On-Site Command Post (OSCP) will be established in a safe location near the site of the emergency. All control, containment, and site safety activities will take place at this location.

- Landline
- Cell phone
- Satellite Phone
- Radio
- Fax

Incident Command Post

The Incident Commander will manage the overall response to the emergency from this post. This includes overseeing and assisting the Operations Section Chief who will be directing all on-site control and containment activities from the Incident Command Post.

The Incident Command Post will be established near the site of the emergency, but outside of the hazard area.

- Landline
- Cell phone
- Satellite Phone
- Radio
- Fax

Emergency Operations Centre

A corporate Emergency Operations Centre (EOC) is usually established at a level two (2) emergency. This is the centre where head office support activities are coordinated. The centre is equipped with the tools, accessibility and space to accommodate the Incident Support Team and support personnel.

- Landline
- Cell phone
- Fax

Government Regional Emergency Operations Centre

If it is taking a considerable amount of time to bring an emergency under control or if the external support requirements are substantial, the appropriate government agency will establish a REOC in the area.

If the licensee or local authority decide not to set up a Regional EOC during a response, the regulatory agency may set up an EOC at the local regulatory agency field centre.

Regulatory agencies encourage the combination of industry and municipal responses into a single Regional EOC if possible.

Industry Regional Emergency Operations Centre

If established, the Public Safety Supervisor may coordinate public notification and evacuation activities from this post. The REOC will most likely be established at the nearest primary facility or field office. The Incident Command Post and the REOC may be in the same location.

- Landline
- Cell phone
- Fax

Provincial Regional Emergency Operations Centre

PREOC will activate to the appropriate level of support when an EOC is activated. PREOC will support the local authority and agency EOCs as well as coordinate information exchange between ministries / agencies and local authority EOCs. PREOC coordinates provincial response activity in the region and requests resources from PECC as needed, and prioritizes deployment of provincial regional resources. PREOC reports to and receives direction from PECC.

- Landline
- Cell phone
- Fax

Provincial Emergency Coordination Centre

PECC provides direction, coordinates provincial response / resources, and coordinates & communicates with federal and international assistance agencies. During an emergency, government agencies will send Temporary Emergency Assignment Management Systems (TEAMS) as staffing resource to PREOC & PECC. TEAMS consist of a pool of trained staff from various provincial ministries who can be called upon to assist local authority response &/or EOC activity.

Possible Communication Devices

| Industry | Government | Combined |

APPENDIX C: LAND DESCRIPTIONS

DOMINION LAND SURVEY (DLS) SYSTEM

- Each township (6 mile x 6 mile) is divided into 36 sections (1 mile x 1 mile)

- Each section is divided into 16 legal sub-divisions (L.S.D.)

- Each section is divided into four quarters (N.W., N.E., S.W., and S.E.)

The numbering of sections and L.S.D.s is shown below:
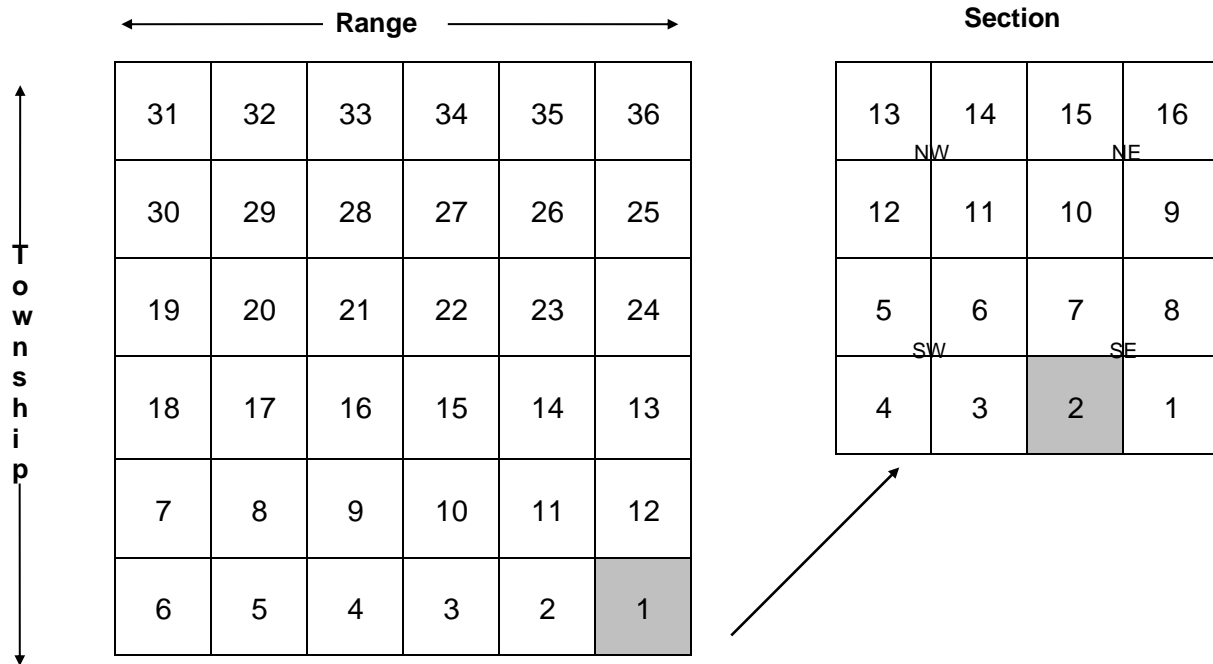
- Townships increase in number from South to North starting at the Canada - USA border

- Ranges increase in number from East to West within a Meridian. A Range is one (1) Township wide (6 miles).

- Meridians run from the North Pole to the South Pole and are spaced every four degrees. The principal Meridian in Canada originates in Central Manitoba and increases West or East from there.

- Legal land description is listed in the following order:

	L.S.D		Section		Township		Range		Meridian
Example	02	-	01	-	38	-	09		West of the 4th

NATIONAL TOPOGRAPHIC SYSTEM (NTS)

Based on the National Topographic System (NTS), the map labelling terms are as follows:

1) Series	A rectangular area that has a width of 8 degrees of longitude and 4 degrees of latitude. There are 9 Series in British Columbia (82, 83, 92, 93, 94, 102, 103, 104, and 114).
2) Area	1/16 of a map Series that has a width of 2 degrees of longitude by 1 degree of latitude (labelled from A to P).
3) Sheet	1/16 of map Area that has a width of 30' in longitude and 15' of latitude (labelled from 1 to 16).
4) Block	1/12 of a map Sheet with a width of 7'30" in longitude and 5' in latitude (labelled from A to L).
5) Unit	1/100 of a map Block, and has a latitudinal extent of 30" and longitudinal extent of 45" (labelled from 1 to 100).
6) Quarter Unit	1/4 of a map Unit (labelled from a to d).

Note: 1 degree is equivalent to approximately 111 km in British Columbia. Degrees vary in size around the planet. They become smaller the closer they get to the poles (north or south) and very large as they reach the equator.

Example   a-29-H / 93-P-9
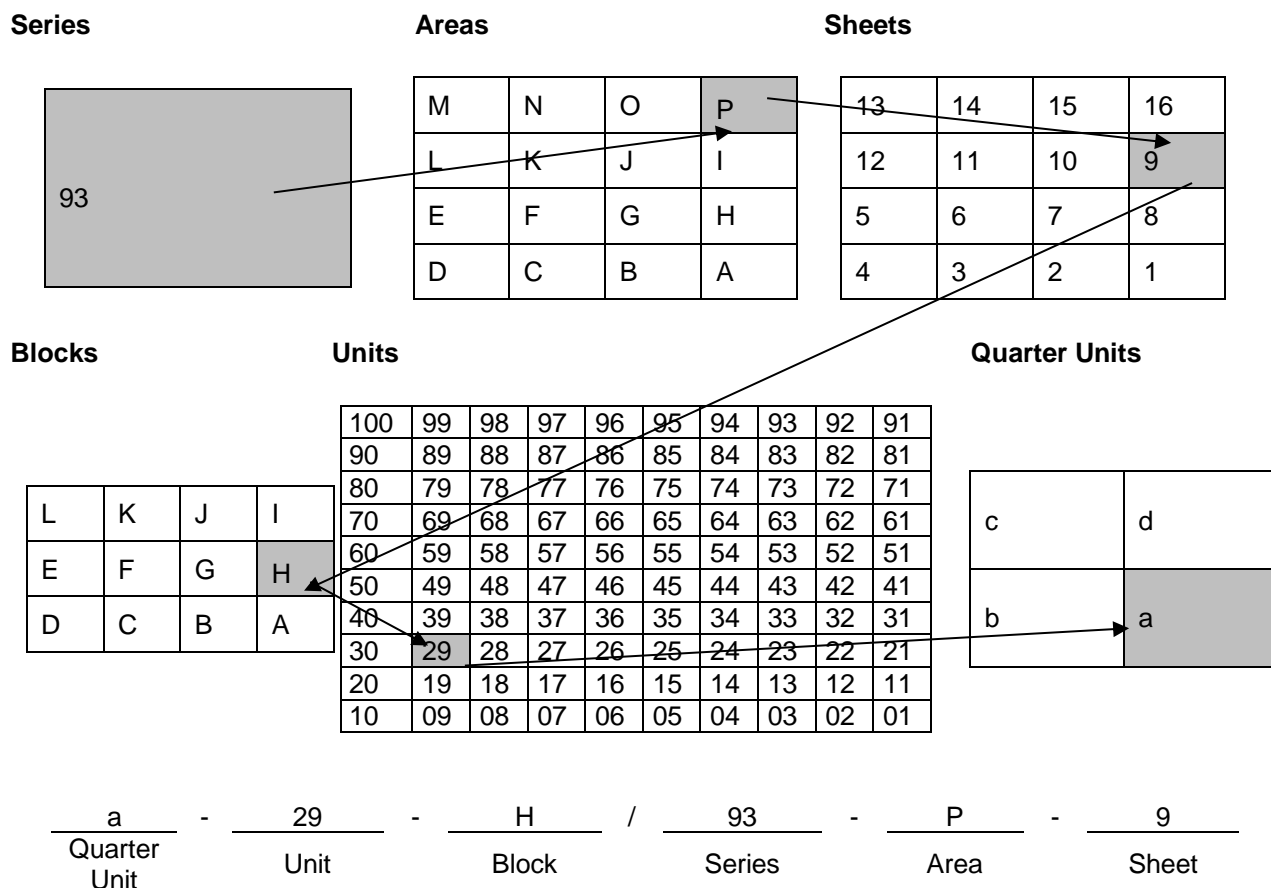
APPENDIX D: MAJOR ACCIDENT HAZARDS

Major Accident Hazards (MAH) are credible risk scenarios that have the potential to present significant risk to people, the environment and the business.

Major Accident Hazards include:

- A fire, explosion or the release of a dangerous substance involving death or serious personal injury to one or more persons.

- Major damage to structure or equipment compromising life safety of persons.

- Catastrophic consequences to the environment.

- Work activities involving death or serious personal injury to five or more persons.

Bow Tie models are used by facilities to better understand the risks inherent to the operations, particularly those with Major Accident Hazard potential, and how they're being managed. They help determine whether the existing barriers / safeguards are sufficient and whether the posed risk has been reduced to an acceptable level.

Bow Tie Models:

- Bow Tie models are used as communication tools for complex situations.

- Bow Tie models simplify data from more complex, component level hazard and risk assessment processes.

- Bow Tie models are used to better understand and manage risk.
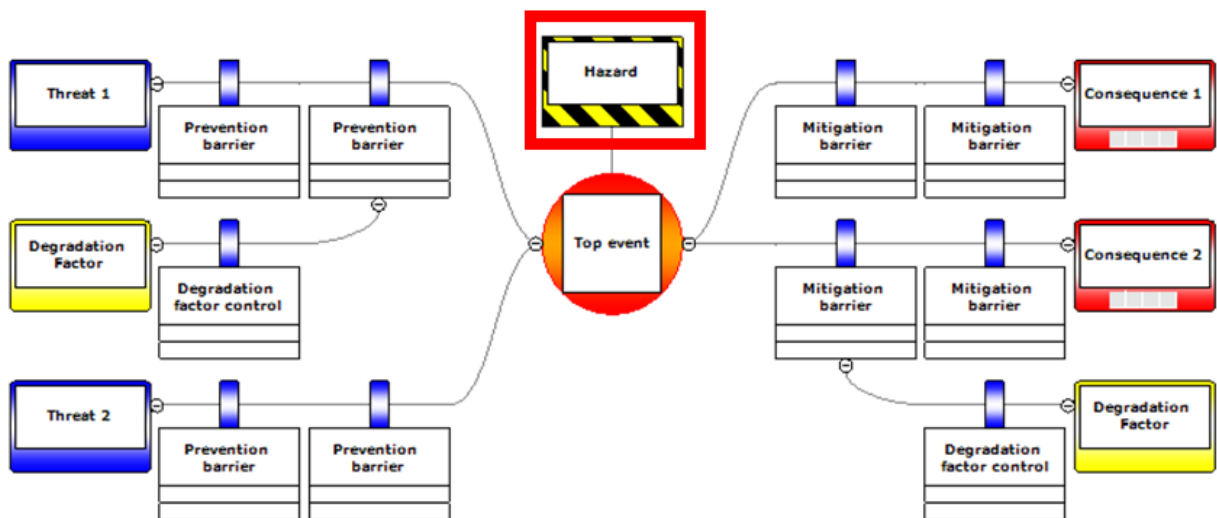
Facilities have designated devices, systems and processes used to prevent or mitigate the effects of MAH events as Safety Critical Elements (SCEs). These SCEs are shown as barriers in the Bow Tie models. These SCEs have detailed performance standards documented which describe the functionality, availability, reliability, survivability and independence criteria that must be satisfied to prevent or mitigate a MAH event (i.e. the maintenance, testing and inspection regimes necessary to ensure integrity).

Facilities may have identified emergency response elements associated with MAH event mitigation as part of their site-specific Emergency Response Plan (ERP). These elements could include:

- Specific response and mitigation strategies found in Site-Specific sections of the facility's ERP.

- Tactical response documents such as Geographic Response Plans (GRPs) and Fire Pre-Plans.

- Response procedures or Standard Operating Procedures (SOP's) used by facility ERT and fire teams.

- Other documented risk treatments or barriers which support event stabilization.

1. Identify the location of the incident on the map:

Incident Location

Legend

— Licensee Gas Pipeline

— Other Pipeline

Emergency Planning Zone (EPZ)
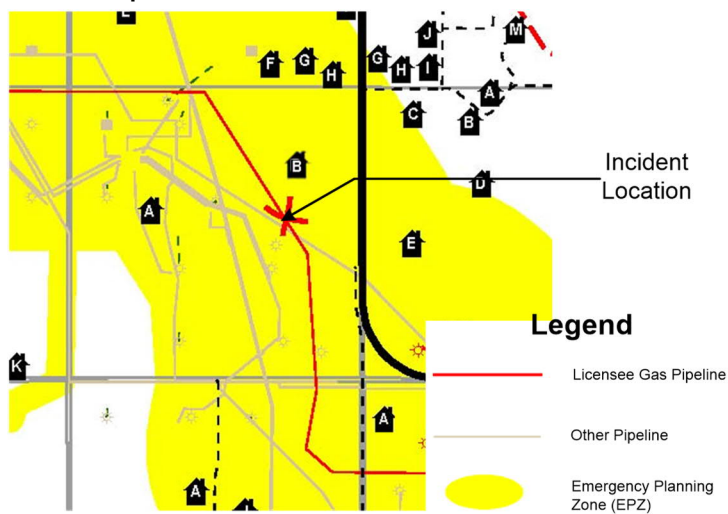
2. Determine the response zones (hazard areas):

a) Locate the Emergency Planning Zone (EPZ) calculation tables for the field in the ERP. EPZ calculation tables are located in the Area Specific Information section of the ERP if applicable.

b) Use the EPZ calculation tables to identify the Initial Isolation Zone (IIZ), Protective Action Zone (PAZ), and Emergency Planning Zone (EPZ) for the well or pipeline involved in the incident.

From		To		License Number	Line	EPZ (m)	IIZ (m)	PAZ (m)
14-02-077-04W6	WE	16-03-077-04W6	PL	39940	1	480	100	400
03-10-077-04W6	WE	02-10-077-04W6	PL	38954	1	3950	1190	3390
10-27-077-04W6	PL	10-27-077-04W6	PL	37984	7	860	330	750
08-34-077-04W6	WE	10-27-077-04W6	PL	37984	1	860	330	750
10-27-077-04W6	PL	01-28-077-04W6	PL	37984	2	860	330	750

c) If the incident is at a facility or if you have not yet confirmed the exact location of the incident, you must use the largest EPZ for the area. The largest EPZ for the area is shown in yellow on the map.

d) The next steps will show you how to draw the response zones on your map starting with the EPZ and ending with the PAZ.
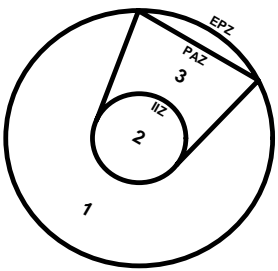
3. Draw the Emergency Planning Zone:

a) Once you have determined the distance of your IIZ, PAZ, and EPZ, mark the edge of the EPZ on each side of the location.
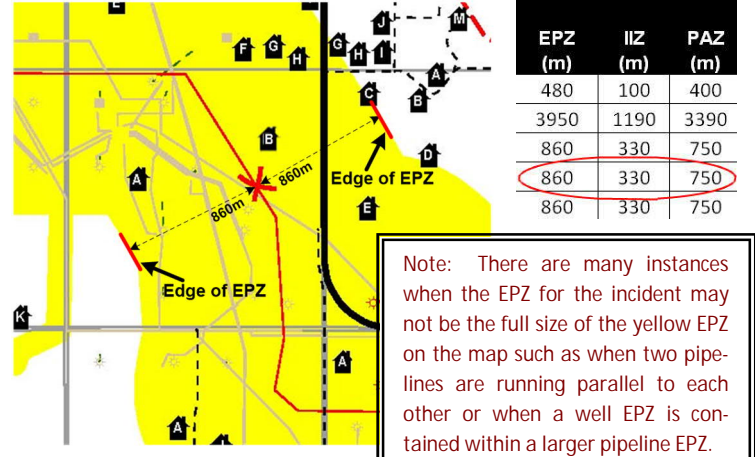
Edge of EPZ

Edge of EPZ

EPZ (m)	IIZ (m)	PAZ (m)
480	100	400
3950	1190	3390
860	330	750
860	330	750
860	330	750

Note: There are many instances when the EPZ for the incident may not be the full size of the yellow EPZ on the map such as when two pipelines are running parallel to each other or when a well EPZ is contained within a larger pipeline EPZ.

3. *Continued*

b) Using the distance from the incident location to the edge of the EPZ, draw a complete circle around the incident site.

Draw an EPZ sized circle around the incident
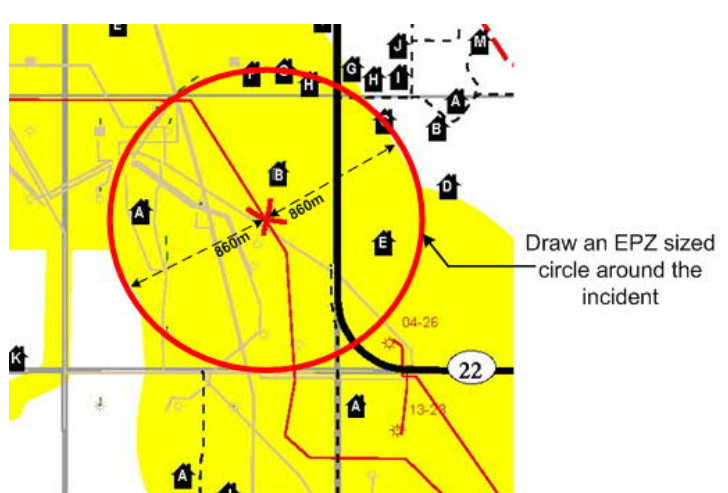
4. Draw the Initial Isolation Zone:

a) Mark the edges of the IIZ on each side of the incident location.

Edges of IIZ

EPZ (m)	IIZ (m)	PAZ (m)
480	100	400
3950	1190	3390
860	330	750
860	330	750
860	330	750
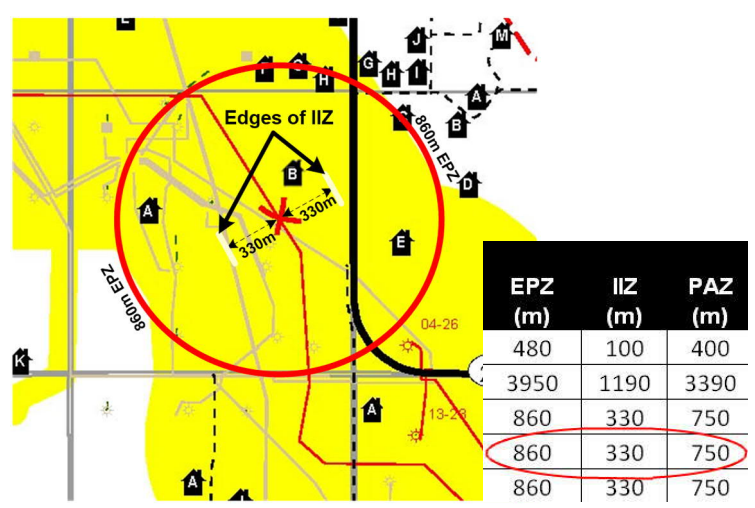
b) Using the distance from the incident location to the edge of the IIZ, draw a complete circle around the incident site.

IIZ sized circle around incident

Note: Residents in the IIZ are closest to the hazard and are the most at risk of being adversely affected.
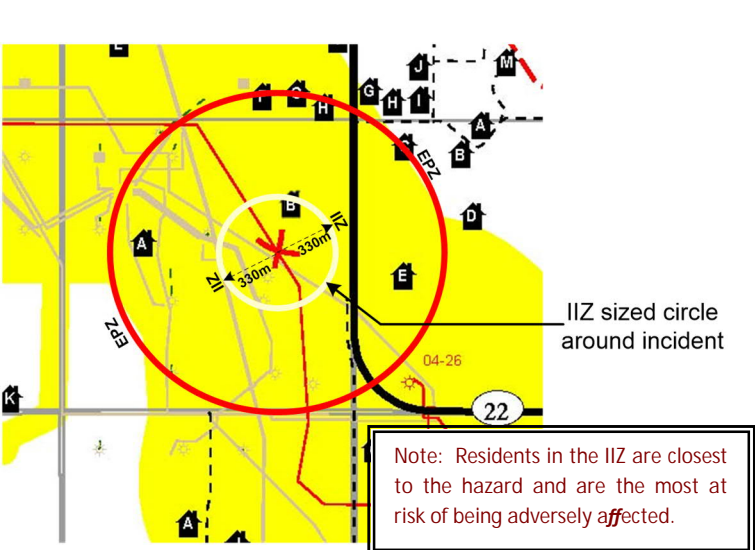
5. Draw the Protective Action Zone:

a) Determine the wind direction. To indicate the wind direction on the map, draw a straight line starting at the incident location and ending outside of the EPZ.
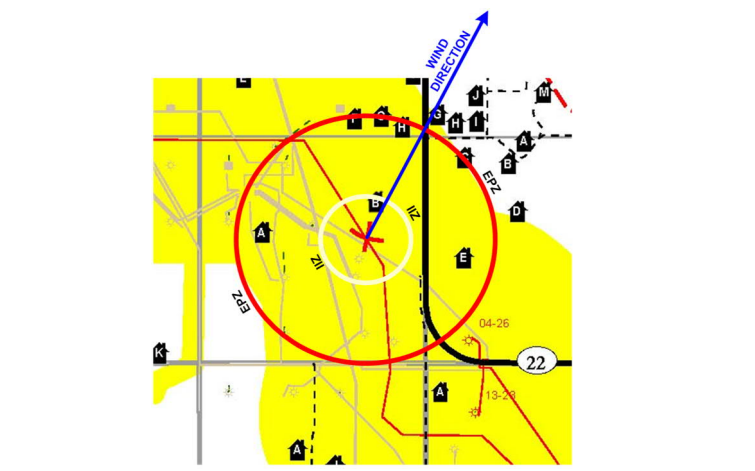
WIND DIRECTION

5. *Continued*

b) Use the PAZ distance to mark the edge of the PAZ, downwind of the incident, along with wind direction line. The width of the PAZ is equal to the length of the PAZ. To keep your PAZ parallel with your wind direction, place half the width of the PAZ left of your wind direction line and half the PAZ width to the right of your wind direction line.

Extended Edge of PAZ

Same length

Extended Edge of PAZ

EPZ (m)	IIZ (m)	PAZ (m)
480	100	400
3950	1190	3390
860	330	750
860	330	750
860	330	750
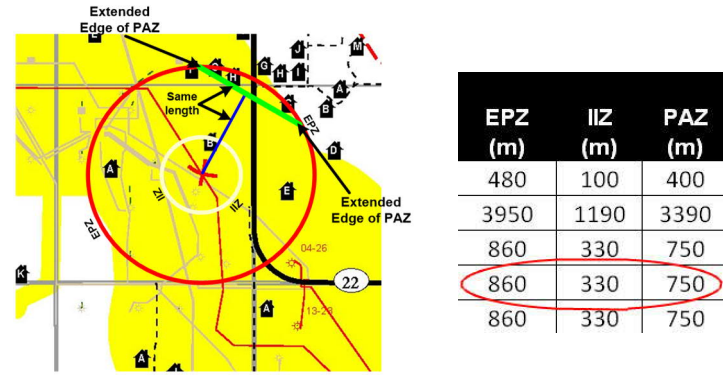
c) To complete the PAZ you will need to draw two additional lines from each side of the IIZ circle to connect with the outer edge of the PAZ.

Note: Residents in the PAZ are the second group to be evacuated / sheltered as being downwind of the hazard puts them at a higher risk than the rest of the residences in the EPZ that are upwind or crosswind from the hazard.
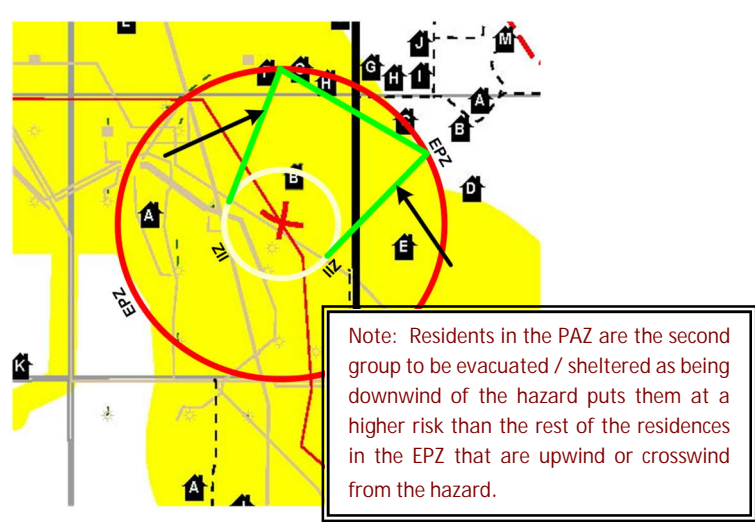
d) Once completed, your Emergency Response Zones should look similar to the image below.
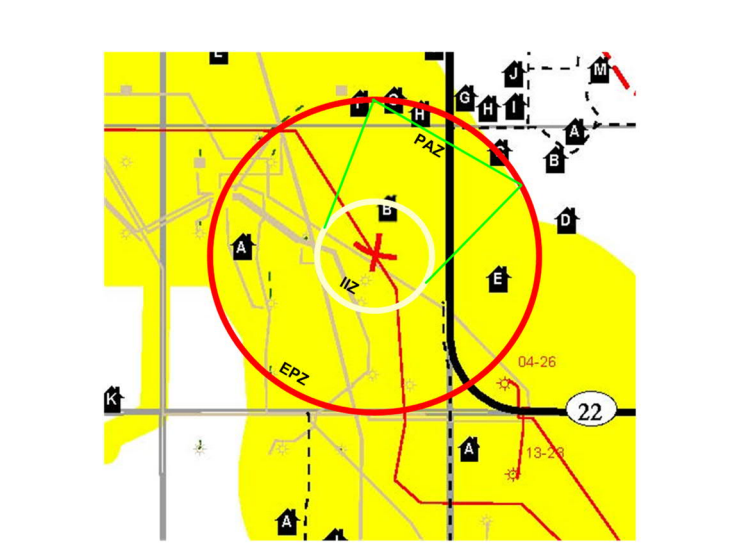
6. Isolate the hazard area:

a) As a guideline, establish roadblock locations where any road of highway enters / leaves the EPZ (refer to the stop signs in the picture below for examples).

Legend

- - - - Other Roads

— Main Hwy
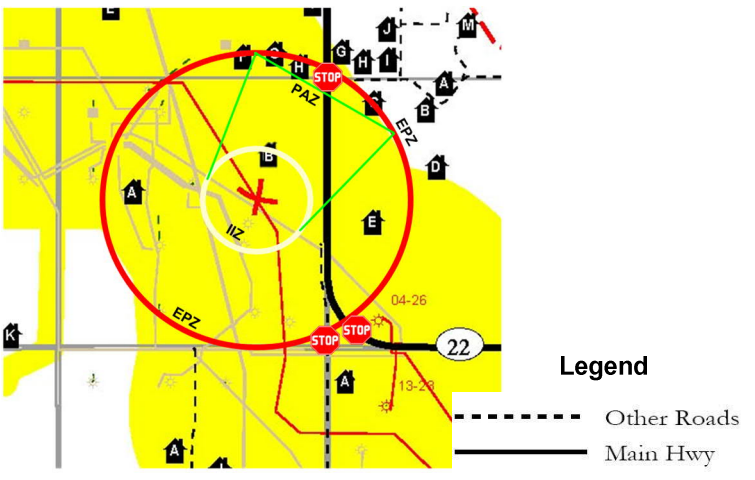
6. Continued

b) Roadblock locations should be highly visible to traffic providing them with enough opportunity to safety stop. Roadblocks should be established at locations where traffic can easily turn around or detour. Adjust your initial roadblock locations as necessary to ensure these criteria are met.
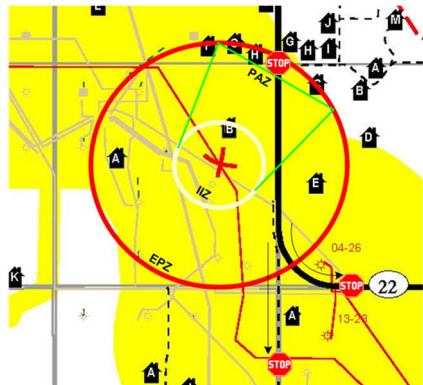
c) If roadblock locations are moved further away from the hazard, additional surface developments may be included in the isolation area. This includes those who would have to egress through the hazard area to leave the area. Any new surface developments added by moving the roadblocks will need to be included when the public is notified / evacuated / sheltered.
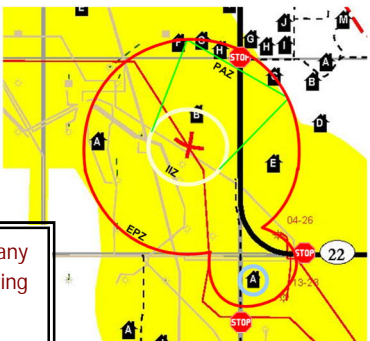
Note: Expand the EPZ to include any residences you have added by moving *the roadblock locations.*

The public protection measures begin in the IIZ and expand outward into the PAZ downwind of the release so that members of the public are not exposed to the hazard. Priority is directed towards those who are the most at risk. Residents should be evacuated / sheltered in the following order:

1) IIZ
2) PAZ (downwind)
3) Sensitive residents in the EPZ (those who have health problems or may require transportation assistance)
4) The rest of the EPZ

The company should receive authorization from local authorities or the RCMP before establishing roadblocks on public roads. The company must contact the RCMP and the transportation authority to have one-, two– or three-digit highways closed. However, if the safety of the public is in jeopardy, the company must be prepared to quickly restrict access to the area before contacting these agencies.

If warranted, the regulatory agency can issue a Closure Order that provides legal authority to close the area. The local authority may, if warranted, declare a State of Local Emergency. This grants the local authority special powers to do such things as road closures or declare mandatory evacuation.

The public must also be prevented from flying into the airspace above a gas release. It may be necessary for NAV CANADA to issue a Notice to Airmen (NOTAM) to advise the pilots of restrictions in the airspace above the EPZ or to close the airspace for a certain radius from the release (a no-fly zone). NOTAMs or closure of airspace may be requested by the regulatory agency at a level 2 or level 3 emergency.

7. Begin Public Protection Measures in the IIZ:

a) Determine if you have any of the following in the IIZ: Residences / businesses, public facilities, recreation areas, urban centres (immediately contact the local authority to coordinate response)
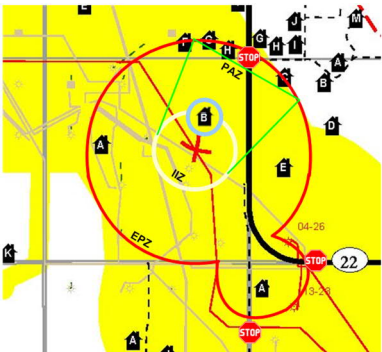
Note: Shelter-in-*place may not be a viable public protection measure in the IIZ. Shelter residents immediately upon notification of an incident however;* if it is safe to do so, the licensee must evacuate residents from the IIZ.

b) Refer to the Public Protection Measures flowchart in the Public Protection Measures section for more information on determining which public protection measure to use.

c) Assign a Telephoner Team to contact people in the IIZ and provide them with emergency instructions using the relevant phone message (ie. B6 - Early Notification / Voluntary / Evacuation Message, B7 - Shelter-in-Place Phone Message, B8 - Evacuation Phone Message). Send a Rover to assist with evacuation if requested.

d) If any residents are evacuated, assign a Reception Centre Representative to establish and manage a reception centre.

8. Begin Public Protection Measures in the PAZ:

a) Determine if you have any of the following in the PAZ: Residences / businesses, public facilities, recreation areas, urban centres (immediately contact the local authority to coordinate response)
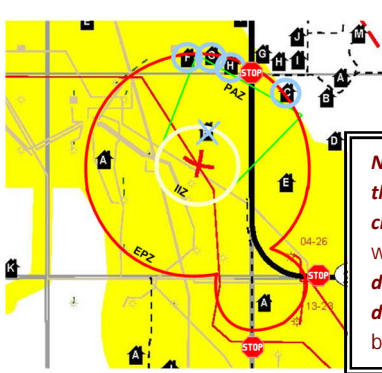
Note: If at any time during the incident the wind direction changes the PAZ will change and public protection measures will need to be redirected to the new *downwind residences. A shift in wind direction could cause ignition criteria to* be met.

b) Dispatch Air Monitors to take readings in the PAZ at the nearest unevacuated residence or place where people may gather. Refer to the Public Protection Measures flowchart in the Public Protection Measures section for more information on determining which public protection measure to use.

| 1 to 10 ppm (3 minute average) | ➤ Notification and Voluntary Evacuation of Sensitive Residents |
| Above 10 ppm (3 minute average) | ➤ Mandatory Evacuation or Shelter-in-Place |

Note: If monitored levels over the 3 minute period interval are declining, *evacuation may not be necessary.*
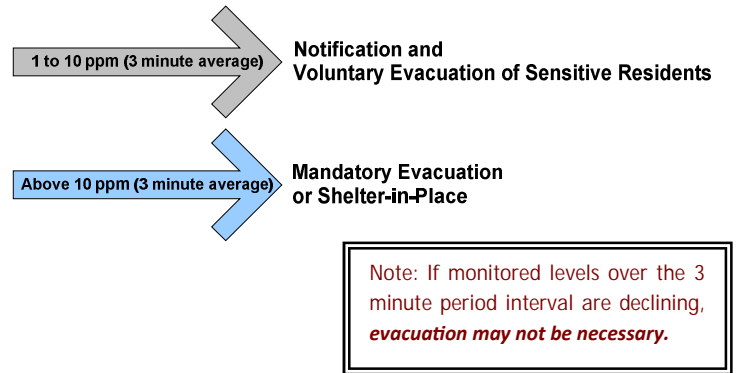
8. Continued

c) Assign a Telephoner Team to contact people in the PAZ and provide them with emergency instructions using the relevant phone message (ie. B6 - Early Notification / Voluntary Evacuation, B7 - Shelter-in-Place, B8 - Evacuation). Send a Rover to assist with evacuation if requested.

9. Begin Public Protection Measures in the EPZ:

a) Determine if you have any of the following in the EPZ: Residences / businesses, public facilities, recreation areas, urban centres (immediately contact the local authority to coordinate response)

b) If air monitoring readings outside of the EPZ are indicating the presences of H_2S (1 ppm or greater), you will need to expand your EPZ and ensure any nearby residences are included. If you expand the hazard area to must evacuate / shelter any newly impacted residences including those who would have to egress through the hazard area to leave the area.

Note: If you do not have contact *information for the residences* outside of the EPZ or you do not have the resources to coordinate the response outside of the EPZ, contact the local authority to assist with response e*ff*orts.


c) Refer to the Public Protection Measures flowchart in the Public Protection Measures section for more information on determining which public protection measure to use.

| 1 to 10 ppm (3 minute average) | ➤ Notification and Voluntary Evacuation of Sensitive Residents |
| Above 10 ppm (3 minute average) | ➤ Mandatory Evacuation or Shelter-in-Place |

Note: If monitored levels over the 3 minute period interval are declining, *evacuation may not be necessary.*
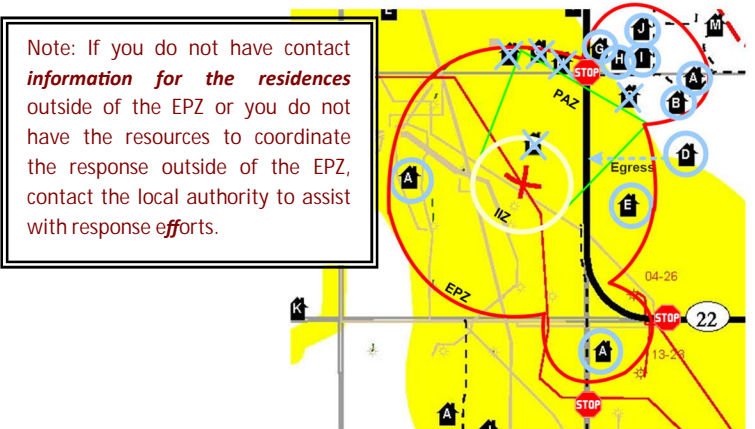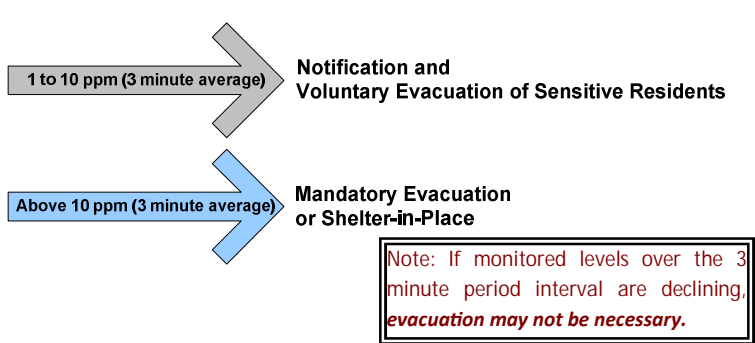
d) Assign a Telephoner Team to contact people in the EPZ and provide them with emergency instructions using the relevant phone message. Send a Rover to assist with evacuation if requested.

10. Dispatch Rovers to patrol the response zones in search of transients.

Determining Emergency Response Zones - British Columbia

1. Identify the location of the incident on the map:

Incident Location

Legend

— Licensee Gas Pipeline

— Other Pipeline

⬤ Emergency Planning Zone (EPZ)
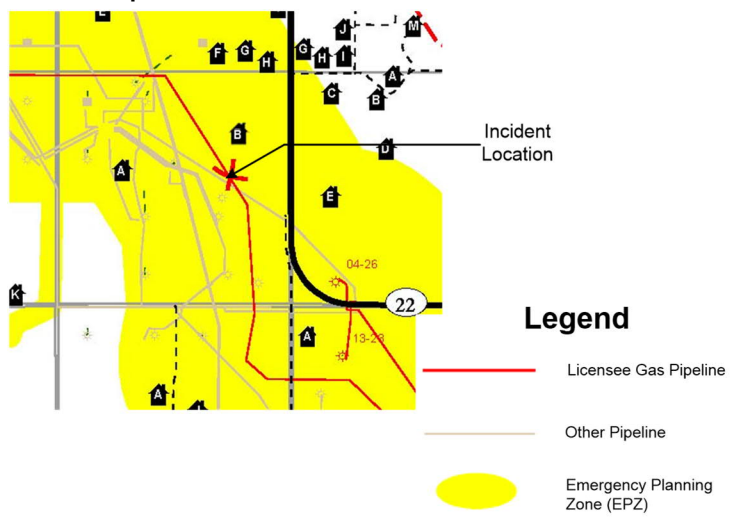
2. Determine the hazard area:

a) Locate the Emergency Planning Zone (EPZ) calculation tables for the field in the ERP. EPZ calculation tables are located in the Area Specific Information section of the ERP.

b) Use the EPZ calculation tables to identify the Emergency Planning Zone (EPZ) for the well or pipeline involved in the incident.

From		To		License Number	Line	EPZ (m)	Status
14-06-020-02W5	CS	09-14-020-03W5	PL	12640	223	860	O
09-14-020-03W5	CS	10-27-020-03W5	PL	12640	223	860	O
10-27-020-03W5	CS	16-32-020-03W5	PL	12640	223	860	O
16-32-020-03W5	CS	09-01-021-04W5	PL	12640	223	860	O
09-01-021-04W5	CS	16-34-020-04W5	PL	12640	223	860	O
16-34-020-04W5	PL	15-34-020-04W5	PL	12640	254	860	O
15-34-020-04W5	PL	02-04-021-04W5	GP	12640	255	860	O

Note: There are many instances when the EPZ for the incident may not be the full size of the yellow EPZ on the map such as when two pipelines are running parallel to each other or when a well EPZ is contained within a larger pipeline EPZ.

3. Draw the Emergency Planning Zone:

a) Once you have determined your EPZ, use the map to mark the edges of the EPZ on either side of the incident location.
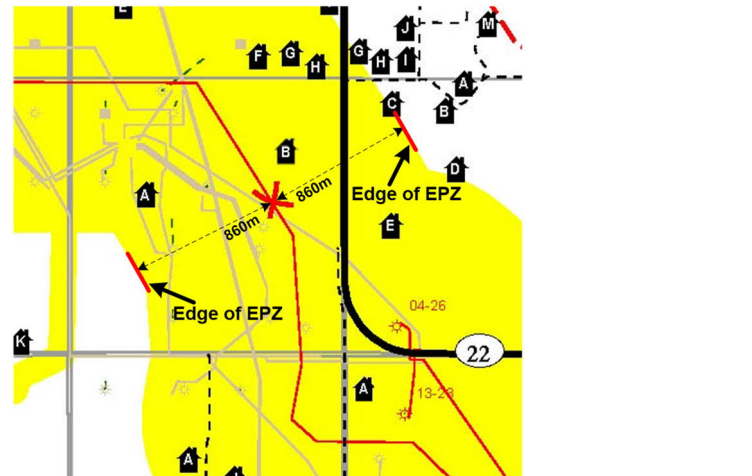
Edge of EPZ

Edge of EPZ

3. *Continued*

b) Using the distance from the incident location to the edge of the EPZ, draw a complete circle around the incident site.

Draw an EPZ sized circle around the incident
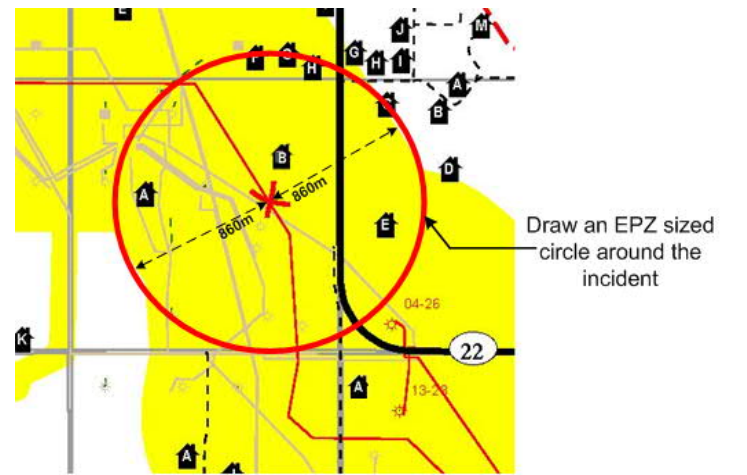
4. Isolate the hazard area:

a) As a guideline, establish roadblock locations where any road or highway enters / leaves the EPZ (refer to the stop signs in the picture below for examples).
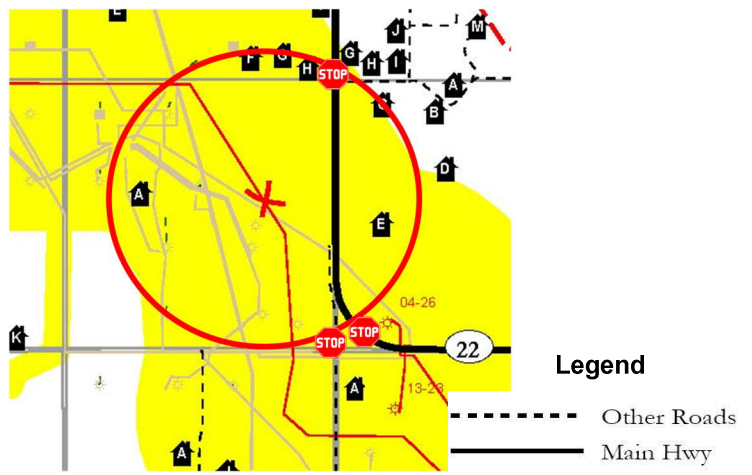
Legend

- - - - Other Roads

——— Main Hwy

b) Roadblock locations should be highly visible to traffic providing them with enough opportunity to safely stop. Roadblocks should be established at locations where traffic can easily turn around or detour. Adjust your initial roadblock locations as necessary to ensure these criteria are met.
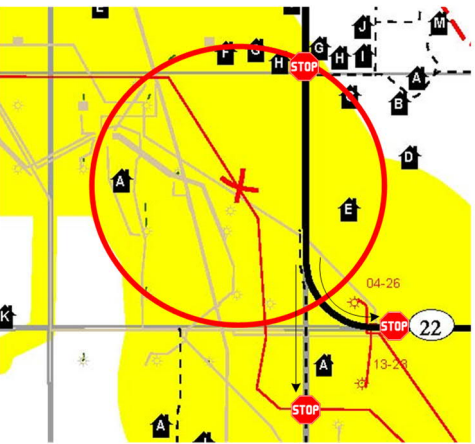
c) If roadblock locations are moved further away from the hazard, additional surface developments may be included in the isolation area. This includes those who would have to egress through the hazard area to leave the area. Any new surface developments added by moving the roadblock locations will need to be included when the public is notified / evacuated / sheltered.
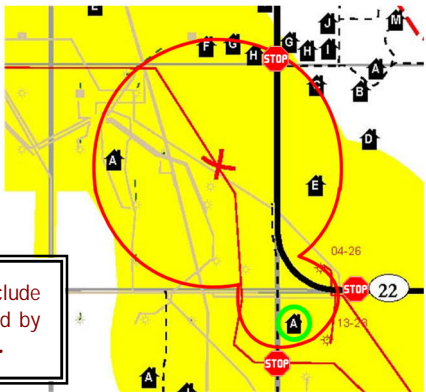
Note: Expand the EPZ to include any residences you have added by *moving the roadblock locations.*

4. *Continued*

The public protection measures begin at the centre and expand outward downwind of the release so that members of the public are not exposed to the hazard. Priority is directed towards those who are the most at risk. Residents should be evacuated / sheltered in the following order:

1) Closest to incident

2) Residents downwind

3) Sensitive residents in the EPZ (those who have health problems or may require transportation assistance)

4) The rest of the EPZ

The company should receive authorization from local authorities or the RCMP before establishing roadblocks on public roads. The company must contact the RCMP and the transportation authority to have one-, two– or three-digit highways closed. However, if the safety of the public is in jeopardy, the company must be prepared to quickly restrict access to the area before contacting these agencies.

If warranted, the regulatory agency can issue a Closure Order that provides legal authority to close the area. The local authority may, if warranted, declare a State of Local Emergency. This grants the local authority special powers to do such things as road closures or declare mandatory evacuation.

The public must also be prevented from flying into the airspace above a gas release. It may be necessary for NAV CANADA to issue a Notice to Airmen (NOTAM) to advise the pilots of restrictions in the airspace above the EPZ or to close the airspace for a certain radius from the release (a no-fly zone). NOTAMs or closure of airspace may be requested by the regulatory agency at a level 2 or level 3 emergency.

## 5. Dispatch Rovers to patrol the EPZ in search of any transient activity.

6. Analyze the potential impact to the public. Are there any of the following within the EPZ:

a) Determine if you have any of the following in the EPZ: Residences / businesses, public facilities, recreation areas, urban centres (immediately contact the local authority to coordinate response)
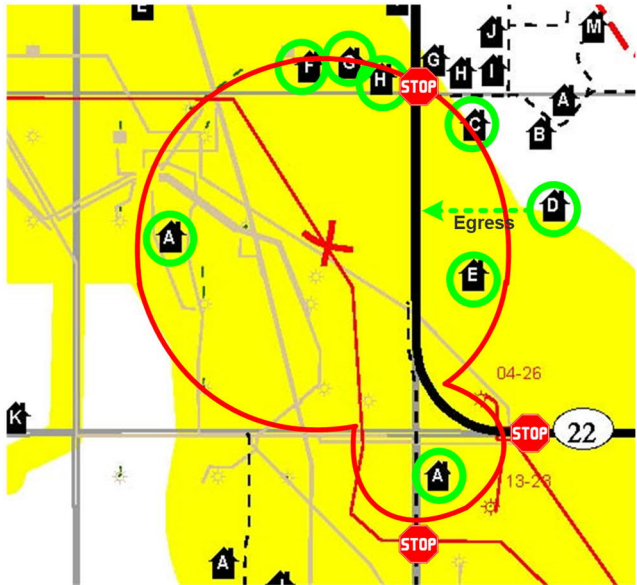
7. Determine wind direction:

a) Determine the wind direction. To indicate the wind direction on the map, draw a straight line starting at the incident location and ending outside of the EPZ.
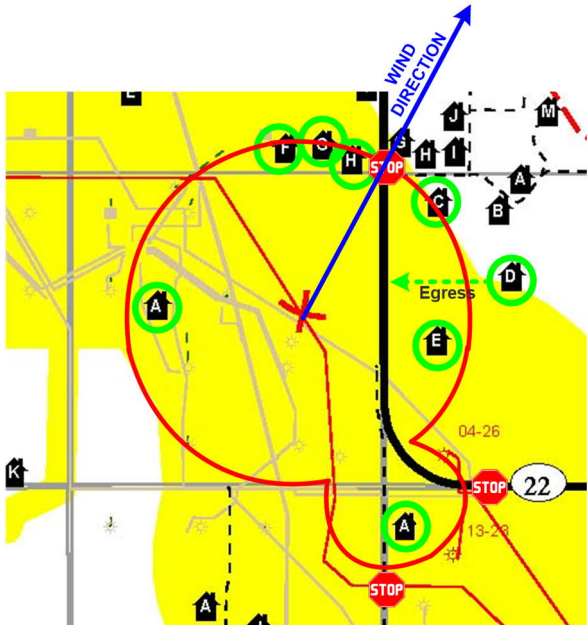
8. Dispatch Air Monitors to take readings downwind of the incident with priority given to the nearest unevacuated residence or place where people may gather:

a) Air monitoring readings should also be coming in from Roadblock personnel and Rovers.
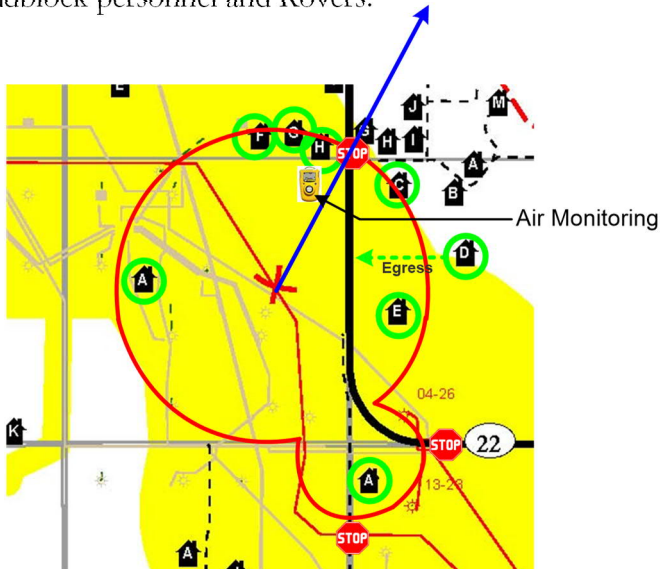
9. Expand the hazard area if the air monitoring readings reported by the Rovers, Roadblock, and Air Monitoring personnel indicate dangerous levels for the Roadblock personnel and the public near the edge of the hazard area.

a) If you expand the hazard area you must evacuate / shelter any newly impacted residences including those who would have to egress through the hazard area to leave the area.

Note: If you do not have contact information for the residences outside of the EPZ or you do not have the resources to coordinate the response outside of the EPZ contact the Local Authority to assist with response efforts.
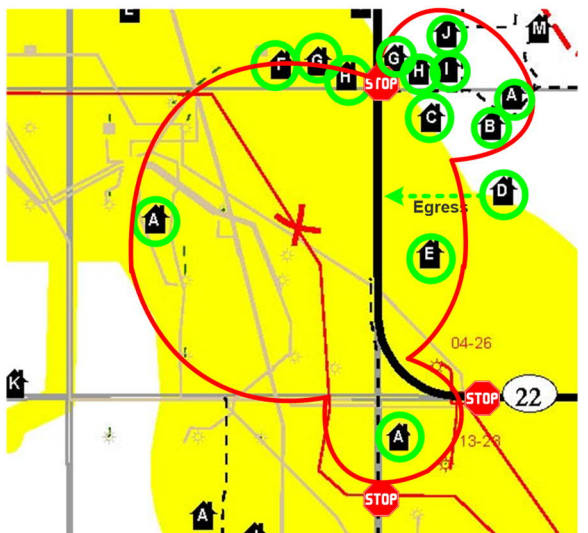
10. Assign a Telephoner Team to contact people in the area and provide them with emergency instructions (i.e., Shelter-In-Place, Early Notification / Voluntary Evacuation, Evacuation).

a) Priority should be given to those closest to the hazard, those downwind of the hazard, and those considered sensitive (i.e., health issues, requires transportation assistance, etc.). See the Public Protection Measures tab for more information on determining appropriate Public Protection Measures.

b) Send a Rover to assist with evacuation if requested.

11. If any residents are evacuated, assign a Reception Centre Representative to establish and manage a Reception Centre.

Cenovus Risk Matrix

The Risk Matrix and assessment criteria may not precisely describe all situations. Professional judgement must be applied when assessing risk.

PAGE 7-23
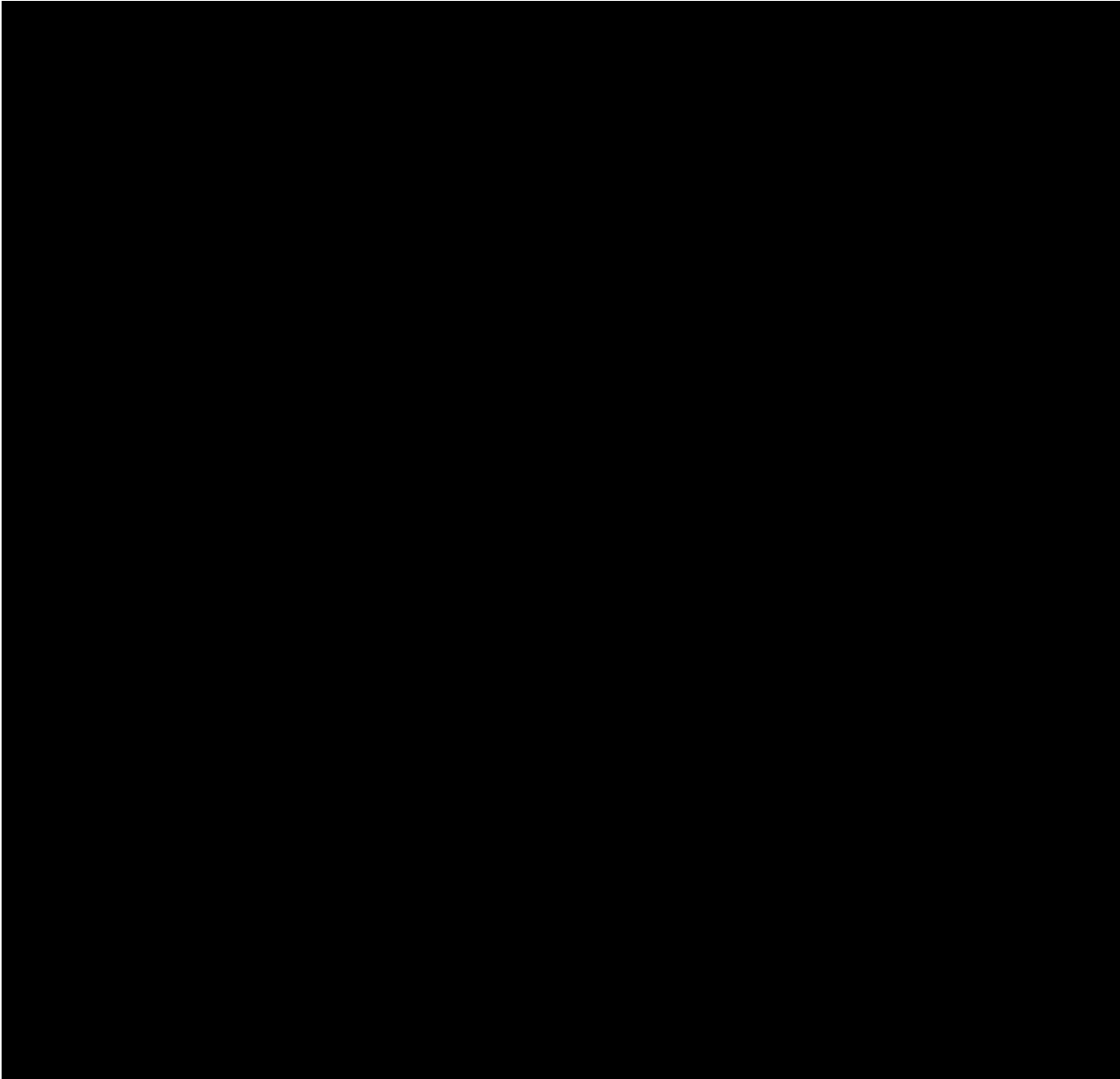
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CENOVUS RESPONSE ACTIONS TABLE
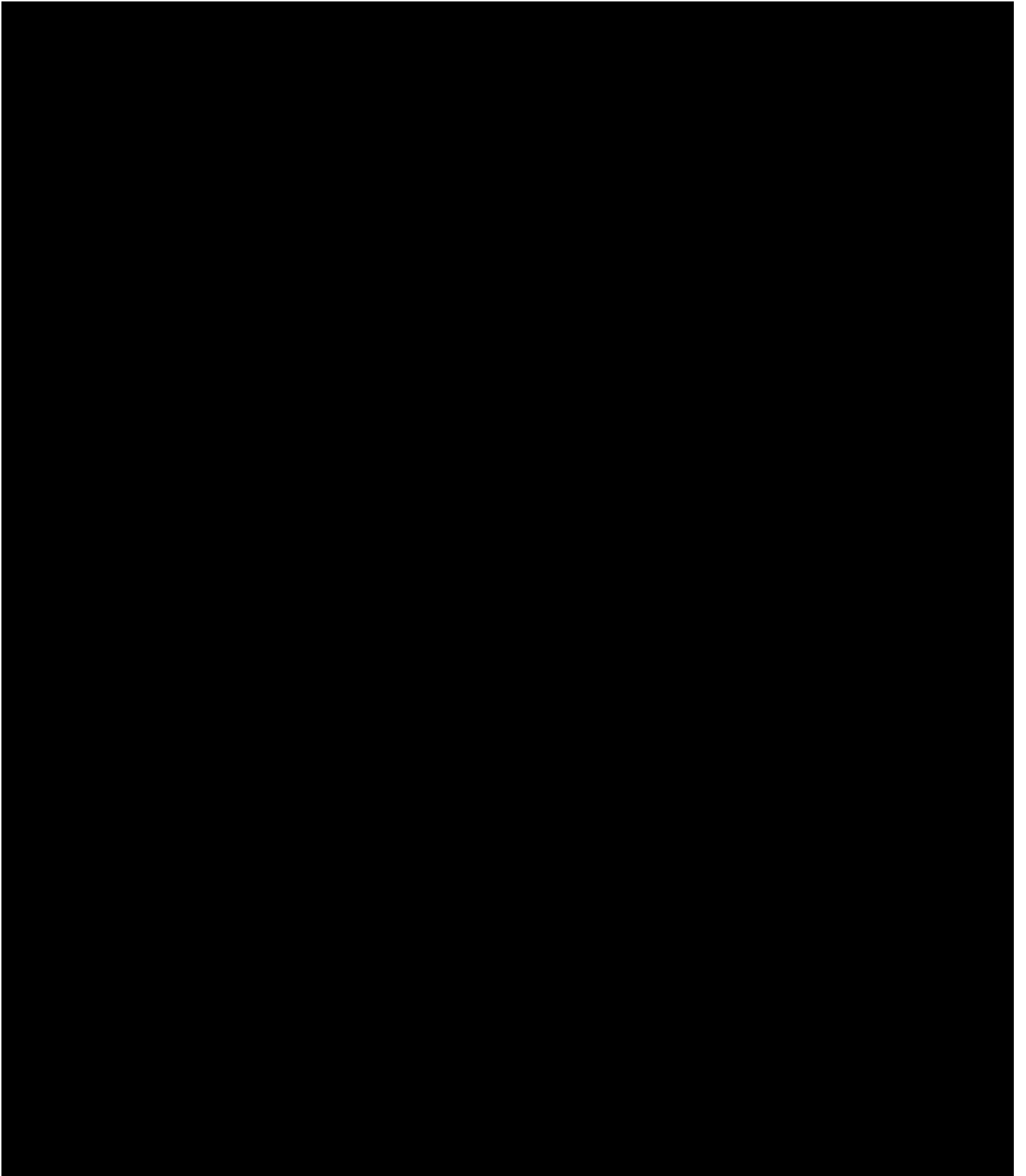
GLOSSARY OF TERMS

Active Fire Protection
A means of extinguishing or controlling a fire either manually (firefighting) or automatically (sprinkler systems, gaseous clean agent or foam systems.

Adjacent to
Within 25m.

Agency Representative
Individual assigned to an incident from a government agency.

Air Quality Monitoring
Measurement of atmospheric concentrations of a hazardous substance, such as H_2S or SO_2.

Alberta Energy Regulator (AER)
The 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 Albertans.

Alert (*Alberta specific*)
An incident that can be handled on-site by the licensee through normal operating procedures and is deemed to be a very low risk to members of the public.

Auto-ignition temperature
All NGL products are flammable and will flash at extremely low temperatures. An open flame or spark is not necessary to cause ignition. Any hot surface which exceeds the auto-ignition temperature of a product can cause a fire if the vapours reaching the hot surface are within their flammable range.

Best practices
A technique or methodology that, through experience and research, has proven to reliably lead to a desired result. A commitment to using the best practices in any field is a commitment to using all the knowledge and technology at one's disposal to ensure success.

Body of water
Streams, lakes, and rivers.

Boiling Liquid Expanding Vapour Explosion (BLEVE)
Boiling Liquid Expanding Vapour Explosion, which is associated with natural gas liquids and high vapour pressure liquids.

Boiling point
This is the temperature that a liquid changes to a gas. NGL products change to a gas at extremely low temperatures and will absorb heat from the surrounding environment during the phase change. Therefore, caution must be used when working with NGLs because contact with flesh can reduce the temperature of the flesh to the NGL boiling point and cause severe frostbite.

British Columbia Emergency Management and Climate Readiness (EMCR) *(British Columbia specific)*
Aids local governments in analyzing hazards and risks, develop and test emergency plans, train and organize emergency staff and volunteers. EMCR also manages all agencies in the event of an emergency or disaster, which cannot be handled locally.

British Columbia Energy Regulator (BCER) *(British Columbia specific)*
The BCER is the lead agency for all regulated oil and gas related activities within British Columbia.

GLOSSARY OF TERMS, continued

Businesses
Industrial operators, retail outlet operators, suppliers, residents, outfitters, foresters and other entities that normally operate within the Emergency Planning Zone, but do not necessarily reside in the Emergency Planning Zone.

CANUTEC
A federal emergency service based in Ottawa. They are an immediate reference source for information on chemical spills. They advise on methods to safely neutralize, decontaminate, approach or handle dangerous substances.

CHEMTREC
A chemical industry's go-to emergency call centre for incidents involving hazardous materials. They provide emergency preparedness, government compliance direction, and around the clock support.

Closure order *(British Columbia specific)*
When the BCER believes that, because of hazardous conditions in a field or at a well, it is necessary or expedient to close an area and to shut out all persons except those specifically authorized, the commission may make an order in writing setting out and delimiting the closed area. For Alberta see Fire Hazard (FH) Order.

Cold Zone
The Control Zone verified by the On-Site Supervisor to be free of hazards with prevailing conditions.

Control Zones
A designation of areas or zones during a hazardous materials release or threatened release. Control Zones differ based on their safety and the degree of hazard. The three Control Zones for hazardous materials response are Hot Zone, Warm Zone, and Cold Zone.

Corporate Emergency Response Plan
This Emergency Response Plan is to facilitate a co-ordinated response by company executive and management personnel to an emergency situation, which may affect the company or its affiliated companies. The Corporate Emergency Response Plan is an integral part of all site-specific company Emergency Response Plans and procedures.

Critical Incident Stress Management (CISM)
Critical Incident Stress Management is a specially structured counselling process between the debriefers and those who are directly involved and/or impacted by an incident.

Critical sour well *(Alberta specific)*
A well with an H_2S release rate greater than 2.0 m3/s or wells with lower H_2S release rates in close proximity to an urban centre as defined in ID 97-6: Sour Well Licensing and Drilling Requirements.

Dangerous Substances
Substances as described in the Transportation of Dangerous Goods Regulations Schedule XII (e.g. Phenol) that are in excess of the minimum quantities described therein.

Decontamination
The process of reducing or preventing the spread of hazardous material contamination from persons or equipment.

Defensive Fighting
The mode of manual fire control in which the only fire suppression activities taken are limited to those required to keep a fire from extending from one area to another.

GLOSSARY OF TERMS, continued

Demobilization
The process of significantly discharging or reducing resources previously committed to an incident response. A demobilization plan is usually created for use during the last stages of an incident.

Director
The Director activates the Emergency Operations Centre with staff to provide advice and support to the Incident Commander (Incident Management Team).
Note: If the emergency happens outside an area that has a site-specific Emergency Response Plan, only then will the Director assume or appoint the role of Incident Commander and dispatch a Incident Management Team to the incident site.

Emergency
A present or imminent event outside the scope of normal operations that requires prompt coordination of resources to protect the health, safety, and welfare of people and to limit damage to property and the environment.

Emergency Awareness Zone (EAZ) (British Columbia specific)
A distance outside of the EPZ where public protection measures may be required due to poor dispersion of the hazard. This area is twice the radius of the Emergency Planning Zone (EPZ).

Emergency Operations Centre (EOC)
An Emergency Operations Centre is a designated facility in a suitable location (i.e. head office, regional office, etc.) established by the permit holder to support Incident Command and to manage the larger aspects of an emergency. In a high-impact emergency, there may be a number of EOCs established to support the response. They may include the Incident Command Post, regional and corporate EOCs, a municipal EOC (MEOC), and the provincial government EOC (POC).

Emergency Planning Zone (EPZ)
The geographical area that surrounds a well, pipeline or facility containing hazardous product that requires specific emergency response planning by the licensee.

Emergency Response Plan (ERP)
A comprehensive plan to protect the public that includes criteria for assessing an emergency situation and procedures for mobilizing response personnel and agencies and establishing communication and coordination among the parties.

ERCBH2S *(Alberta specific)*
A software program that calculate site-specific EPZs using thermodynamics, fluid dynamics, atmospheric dispersion modelling and toxicology.

Evacuation
Organized, phased, and supervised withdrawal of members of the public from dangerous or potentially dangerous areas to safe areas.

Tactical Evacuation – A measure to immediately move people to a safe area as part of emergency response and operations. Does not require approval from local authority but the local authority may enact an evacuation order, if required, and local authority must be advised if a tactical evacuation has occurred.

Planned Evacuation – An evacuation coordinated by local government authority that can authorize evacuation alerts and orders.

GLOSSARY OF TERMS, continued

Explosive Limits (Lower and Upper)
Each gaseous hydrocarbon substance has a minimum (Lower Explosive Limit or LEL) and a maximum (Upper Explosive Limit or UEL) percentage in air below or above which combustion will not take place. Explosive limit and flammability limit are used interchangeable. The terms "Too Lean" and "Too Rich" are used for levels outside of the explosive range.

Exposure
The area which may, if not protected and managed by means of cooling using water, foam and/or other suppression agents as well as fire-spread, could be exposed to fire or explosion. Usually an adjacent/abutting fixed and/or mobile property or structure that may be affected by conduction, convection, or radiant heat.

Facility
Any building, structure, installation, equipment, or appurtenance that is connected to or associated with the recovery, development, production, handling, processing, treatment, or disposal of hydrocarbon-based resources or any associated substance or wastes. This does not include wells or pipelines.

Fire Hazard (FH) Order *(Alberta specific)*
An order issued by the AER during an emergency to restrict public access to a specified area.

First Responders
The first personnel to respond to an incident – normally operators, but could be anyone at the facility. Also includes industrial or municipal fire personnel. First responders require appropriate emergency response training to ensure that their response is suitable and performed safely.

Flash Point
Minimum temperature at which a liquid gives off sufficient vapour to form an ignitable mixture (within the flammable range) with air at the surface of the liquid.

Functional Exercise
As described in CAN/CSA Z246.2-18, an activity designed to evaluate capabilities and multiple functions using simulated response. A functional exercise will simulate the deployment of resources and rapid problem solving. Participants will evaluate management of the command and coordination centres and assess the adequacy of emergency response plans and resources.

Gathering system
The network of pipelines, pumps, tanks, and other equipment that carries oil and gas to a processing plant or to other separation equipment.

Hazard
A situation with potential to harm persons, property, or the environment.

Hazard Planning Zone (HPZ) (*British Columbia specific*)
A geographical area (a) determined by using the hazard planning distance as a radius, and (b) within which persons, property or the environment may be affected by an emergency. Defined in Emergency Management Regulation.

Hazardous product
A substance released in quantities that may harm persons, property, or the environment.

GLOSSARY OF TERMS, continued

High Vapour Pressure Liquids (HVPLs)
HVPLs have a vapour pressure greater than 240 kPa at 38°C (34.8 PSIG @ 100°F) and include ethane, propane, butane, and pentanes plus, either as a mixture or as a single component.
Note: Comparisons

Gasoline - Vapour pressure between 55 and 100 kPa at 38°C (8 - 14.5 PSIG @ 100°F).

Condensate **-** Often a component of a propane/butane mixture, has a vapour pressure of 59 to 72 kPa at 38°C (8.6 - 10.4 PSIG @ 100°F).

High Vapour Pressure (HVP) plume dispersion geometry
An uncontrolled release of NGL product on flat terrain will form a vapour plume as it disperses. If the vapour plume formed at the leak site has not been ignited, it will most likely reach its maximum size within the first half hour of the leak occurrence. Two unique features of an NGL plume are:
The downwind edge of the plume tends to spread out significantly forming a broad frontal edge.
Under certain conditions, the plume will travel upwind for a short distance.

High Vapour Pressure (HVP) pipeline
A pipeline system conveying hydrocarbons or hydrocarbon mixtures in the liquid or quasi-liquid state with a vapour pressure greater than 110 kilopascals absolute at 38°C. Some examples are liquid ethane, ethylene, propane, butanes, and pentanes plus.

High Vapour Pressure (HVP) products
HVP products have a vapour pressure greater than 240 kPa at 38°C (34.8 PSIG at 100°F) and include ethane, propane, butane and pentanes plus, either as a mixture or as a single component. A leak from a vessel or pipe containing HVP products can result in a BLEVE.

Hot Zone
The Control Zone immediately surrounding the physical location of an incident with a boundary extending far enough from the incident to protect response members positioned outside the Hot Zone from exposure to flames, dense smoke, extreme temperatures, chemical, toxic and/or other hazards.

Hydrogen Sulphide (H$_2$S)
A naturally occurring gas found in a variety of geological formations and also formed by the natural decomposition of organic matter in the absence of oxygen. H$_2$S is colourless, has a molecular weight that is heavier than air, and is extremely toxic. In small concentrations, it has a rotten egg smell and causes eye and throat irritations. Depending on the particular gaseous mixture, gas properties, and ambient conditions, a sour gas release may be:

      Heavier than air (dense), so it will tend to drop towards the ground with time,
      Lighter than air (buoyant), so it will tend to rise with time, or
      About the same weight as air (neutrally buoyant), so it will tend to neither rise nor drop but with time disperse.

Hydrogen Sulphide (H$_2$S) release rate
The rate that sour gas escapes into the atmosphere is often calculated for sour gas wells. It is usually defined in cubic metres per second (m^3/s). The size of the emergency planning zone is estimated from the H$_2$S release rate.

GLOSSARY OF TERMS, continued

Hydrogen Sulphide (H$_2$S) release volume
The volume of sour gas that escapes into the atmosphere is often calculated for facilities that have a defined retention volume, usually defined in cubic metres. Emergency planning zone sizes are often estimated using the volume of H$_2$S that may be released from a facility. More sophisticated models may also incorporate the rate at which the release could occur and the nature of the gas and the atmospheric conditions when determining the emergency planning zone size.

Hyper-susceptible
A person or persons who may be abnormally reactive to a given exposure to toxins and whose reaction may occur in orders of magnitude greater than that of the susceptible population. Hypersusceptibles include those persons with impaired respiratory function, heart disease, liver disease, neurological disorders, eye disorders, severe anemia, and suppressed immunological function.

Ignition
Process of setting a hydrocarbon release on fire.

Ignition Team
Consists of at least two personnel trained in plume ignition.

Incident
An unexpected occurrence or event that requires action by emergency personnel to prevent or minimize the impacts on people, property, and the environment.

Incident Action Plan (IAP)
An organized course of action that addresses all phases of incident control within a specified time frame.

Incident classification
A system that examines the risk level to members of the public following an incident and assigns a level of emergency based on the consequence of the incident and the likelihood of the incident escalating.

Incident Command Post (ICP)
A designated place where the Incident Commander and staff is located. The ICP should be located outside of the hazard area, but close to the incident. The ICP may be a vehicle, trailer, fixed facility or any location suitable to accommodate the function.

Incident Command System (ICS)
A standardized, on-scene, all-hazard incident management system. The Incident Command System (ICS) is flexible in that it can be adapted for large and small incidents.

Incident Commander (IC)
Manages the overall response to emergency incidents. The Incident Commander is responsible for: developing objectives, strategies and tactics that guide the response; assigning personnel to fill necessary positions; ensuring the safety of all personnel; keeping internal and external stakeholders updated; coordinating with other response agencies.

Incident Management System (IMS)
A system used to coordinate preparedness and incident management.

Incident Management Team (IMT)
Company and contractor personnel directly involved in controlling the incident at the emergency site and from the EOC.

GLOSSARY OF TERMS, continued

Incident Support Team (IST)
Provides advice and logistical support to the Incident Management Team and Incident Commander in particular. The team is comprised of head office personnel and any contract emergency experts.

Incipient Firefighting
Firefighting performed inside or outside of an enclosed structure or building when the fire has not progressed beyond incipient stage.

Incipient Stage
Refers to the severity of a fire where the progression is in the early stage and has not developed beyond that which can be extinguished using portable fire extinguishers or hand lines flowing up to 473 L/min (125 gpm). A fire is considered to be beyond the incipient stage when the use of thermal protective clothing or self-contained breathing apparatus is required or an industrial fire brigade member is required to crawl on the ground or floor to stay below smoke and heat.

Initial Isolation Zone (IIZ)
An area in close proximity to a continuous hazardous release where indoor sheltering may provide limited protection due to proximity of release.

Isolating the release
Ensuring access to the hazard area is controlled.

Lead Agency
The government support organization which acts as the lead government agency during an industry emergency response.

Level 1 Emergency *(Alberta specific)*
There is no danger outside the licensee's property, there is no threat to the public, and there is minimal environmental impact. The situation can be handled entirely by licensee personnel. There will be immediate control of the hazard. There is little or no media interest.

Level 1 Emergency *(British Columbia specific)*
There is no immediate danger to the public or environment as no H_2S has been released; the emergency is confined to the lease or company property.

Level 2 Emergency *(Alberta specific)*
There is no immediate danger outside the licensee's property or the right-of-way, but there is the potential for the emergency to extend beyond the licensee's property. Outside agencies must be notified. Imminent control of the hazard is probable but there is a moderate threat to the public and/or the environment. There may be local and regional media interest in the event.

Level 2 Emergency *(British Columbia specific)*
There is potential risk to the public or environment, as the emergency could extend beyond company property. However, control is still possible.

Level 3 Emergency *(Alberta specific)*
The safety of the public is in jeopardy from a major uncontrolled hazard. There are likely significant and ongoing environmental impacts. Immediate multi agency municipal and provincial government involvement is required.

Level 3 Emergency *(British Columbia specific)*
An immediate danger to the public or environment exists; control of the situation has been lost.

GLOSSARY OF TERMS, continued

Licensee
The responsible duty holder as specified in legislation.

Liquefied Petroleum Gas (LPG)
Mixture of heavier, gaseous hydrocarbons (butane and propane), liquefied as a portable source of energy.

Liquid to gas expansion
NGL products will expand greatly when released to the atmosphere. For example, propane expands 272 times its liquid volume. Other products expand at different rates, but all have a high gas to liquid ratio.

Local Authority
A local authority is considered to be:
1. The council of a city, town, village or municipal district;
2. in the case of an improvement district or special area, the Minister of Municipal Affairs;
3. for a national park, the park superintendent or the par superintendent's delegate;
4. the settlement council of a Métis settlement; or
5. the band council of a First Nations Reserve.

Lower Explosive Limit (LEL)
The lowest concentration of gas or vapour (per cent by volume in air) that explodes if an ignition source is present at ambient temperatures.

Major (full-blown) exercise
As described in CAN/CSA Z246.2-18, a multi-agency, multi-jurisdictional activity involving actual deployment of resources in a coordinated response, as if a real emergency had occurred. The full-scale exercise includes the mobilization of units, personnel, and equipment. Participants will assess plans and procedures and evaluate coordinated responses under crisis conditions.

Manitoba Growth, Enterprise & Trade – Petroleum Branch
The Manitoba Growth, Enterprise & Trade – Petroleum Branch administers The Mines and Minerals Act and related regulations governing the exploration, development, production, transportation and storage of crude oil and natural gas.

Maximum Operating Pressure (MOP)
The maximum licensed operating pressure for a vessel or pipeline or a section of it.

Ministry of Energy and Resources (MER)
MER is the lead regulatory agency for the upstream petroleum industry in Saskatchewan.

Minor *(British Columbia specific)*
Lowest risk score in the BCER Incident Classification Matrix. The permit holder must report the minor incident to the Commission within 24 hours by electronic submission through the Online Minor Incident Reporting System, opened through KERMIT.

Mobile air quality monitoring
Use of sophisticated portable equipment to track substances such as H_2S or SO_2 at very low parts per billion atmospheric concentrations.

Municipal Emergency Operations Centre (MEOC)
The centre from which responsible municipal officials manage and support emergency operations within their jurisdiction, as well as formulate protective actions and provide public information. The centre has adequate workspace, maps, status boards, and communications capability.

GLOSSARY OF TERMS, continued

Municipal Emergency Plan (MEP)
The emergency plan of the local authority.

Municipality
See local authority.

Mutual Aid Understanding
An understanding between two or more public and/or private parties, such as oil and gas companies, service companies, and local authorities, that defines each party's commitment to provide aid and support during an incident.

National Fire Protection Association (NFPA)
Established in 1896, the NFPA is a US based organization with international membership charged with creating and maintaining minimum standards and requirements for fire prevention and suppression activities, training, and equipment, as well as other life-safety codes and standards.

Natural Gas Liquids (NGL)
These are hydrocarbons liquefied under pressure in field facilities or in gas processing plants. Natural gas liquids include ethane, propane, butane and pentanes plus and normally occur as a mixture of these compounds.
Physical properties of NGL products:

Colour - NGL products are colourless except when they include a condensate component, which gives them a light-yellow appearance. Releases during winter conditions can discolour snow. NGL products may appear as a white cloud when released to the atmosphere. This white cloud is formed by the condensing of moisture in the air.

Odour - Most NGL products have a mild petroleum odour. During pipeline transport NGL products are almost odourless.

Vapour Density - A measure of the mass per unit volume of the vapour (i.e. kg/m^3). All NGL products transported by the company have a vapour density greater than air or a relative vapour density greater than 1.0.

NAV Canada
Canada's civil air navigation services provider, with operations coast to coast. NAV Canada provides air traffic control, flight information, weather briefings, aeronautical information services, airport advisory services, and electronic aids to navigation.

Notice to Airmen (NOTAM)
An order issued by Transport Canada restricting access to airspace in a defined area.

Notification
The distribution of project-specific information to participants that may be directly and adversely affected by the proposed energy development.

Odour complaint
A report that someone smells an offensive odour (may be sour gas) in the area.

Offensive Firefighting
The mode of manual firefighting control in which manual fire suppression activities are concentrated on reducing the size of fire to accomplish extinguishment.

GLOSSARY OF TERMS, continued

Oil Spill Containment and Recovery Unit (OSCAR)
Trailer containing oil spill equipment for containment and recovery.

On-Site Command Post (OSCP)
An emergency operations centre established in the immediate vicinity of the incident to provide immediate and direct response to the emergency and initially staffed by licensee personnel.

Partially controlled flow
A restricted flow of product at surface that cannot be shut off at the licensee's discretion with equipment on-site.

Passive Fire Protection (PFP)
PFP attempts to contain fires or slow the spread, through use of fire-resistant walls, floors, and doors. PFP systems need to comply with the associated listing and approval use and compliance in order to provide the effectiveness expected by building codes.

Personal consultation
Consultation through face-to-face visits or telephone conversations with all requisite individuals.

Petroleum industry
Refers to all petroleum industry operations.

Plume (gas plume)
An elongated mobile column of gas or smoke.

Preparedness
Obligation to identify adequate capabilities and resources, train for safe response to incidents, and conduct regular reviews of the emergency response plan.

Prevention
Includes the evaluation of risks, probability of worst cases, facility design, maintenance programs, incident investigation and training to ensure a facility operates as intended.

Protective Action Distance (PAD)
The distance from the incident to the EPZ outer boundary.

Protective Action Zone (PAZ)
An area downwind of a hazardous release where outdoor pollutant concentrations may result in life threatening or serious and possibly irreversible health effects on the public.

Provincial Operations Centre (POC)
An operations centre with the capacity to accommodate representatives from each government department.

Public
The group of people who may be or are impacted by an emergency (e.g., employees, contractors, neighbours, emergency response organizations, regulatory agencies, the media, appointed or elected officials, visitors, customers, etc., as appropriate).

Public facility *(Alberta specific)*
A public building, such as a hospital, rural school, or major recreational facility, situated outside of an urban centre that can accommodate more than 50 individuals and/or that requires additional transportation to be provided during an evacuation.

GLOSSARY OF TERMS, continued

Public protection measures
The use of sheltering, evacuation, ignition, and isolation procedures to mitigate the impact of a hazardous release on members of the public.

Public Protection Supervisor
Member of the field response team. Individual charged with the responsibility of co-ordinating the evacuation or shelter of people in the emergency hazard Area. The Public Protection Supervisor reports to and may be located in the same location as the Incident Commander.

Publicly used development *(Alberta specific)*
Places where the presence of 50 individuals or less can be anticipated (e.g., places of business, cottages, campgrounds, churches, and other locations created for use by the non-resident public).

Publicly used facility
Places where the presence of people can be anticipated. Examples include places of business, cottages, campground, churches, and other locations created for use by the public.

Publicly used facility (*British Columbia specific*)
Places where the presence of people can be anticipated. Examples include places of business, cottages, campgrounds, churches, and other locations created for use by the public. Includes any similar development the BCER may designate as a public facility.

Reception Centre
A centre established to register evacuees for emergency shelter, to assess their needs, and, if temporary shelter is not required because evacuees will stay elsewhere, to ascertain where they can be contacted.

Recovery
Assessment of damages followed by restoration of infrastructure, human and environmental conditions to a safe and acceptable condition for all stakeholders.

Regional Emergency Operations Centre (REOC)
An operations centre established in a suitable location to manage the larger aspects of the emergency that is manned jointly by government and industry staff.

Residence
A dwelling that is occupied full time or part time.

Resident
Individual living in the area at a fixed location.

Resident data record
Form used to track the contact made with residents, businesses and transients.

Response Facility
Any emergency operations centre, command post, reception centre, staging area or other facility that is used to support the emergency response activities.

Response zones (*Alberta specific*)
The Initial Isolation Zone (IIZ), Protective Action Zone (PAZ) and Emergency Planning Zone (EPZ).

Roadblock Crew
Personnel responsible for controlling access to the Emergency Hazard Area, reporting to the Public Protection Supervisor.

GLOSSARY OF TERMS, continued

Rover
Member of the field response team. Individual responsible for assisting in the evacuation of the Hazard Area, reporting to the Public Protection Supervisor. May also be directed to shut-in / shut down equipment that may cause future safety hazards.

Rover Kit
A briefcase containing maps, forms, supplies and instructions needed by the Rover to carry out their duties.

S.A.B.A.
Supplied Air Breathing Apparatus.

S.C.B.A.
Self Contained Breathing Apparatus.

Serious injury
A serious injury includes the following:
- an injury that results in death;
- fracture of a major bone;
- amputation other than a portion of a finger or toe;
- loss of sight in an eye;
- internal haemorrhage;
- third degree burns;
- unconsciousness;
- An injury that results in paralysis (permanent loss of function).

Shelter-in-Place
Remaining indoors for short-term protection from exposure to toxic gas releases.

Sour gas
Natural gas, including solution gas, containing hydrogen sulphide (H_2S).

Sour gas release
An uncontrolled release of natural gas containing hydrogen sulphide (H_2S).

Sour multiphase pipeline *(British Columbia specific)*
A pipeline that transmits a multiphase product that contains more than 10 moles of H_2S per kilomole of natural gas in the gas phase.

Sour multiphase product *(British Columbia specific)*
Any liquid that contains H_2S in the gas phase.

Sour pipeline
Pipeline that conveys gas and/or liquid that contains sour gas.

Sour production facility
Facility that processes gas and/or liquid that contains sour gas

Sour well
An oil or gas well expected to encounter during drilling formations bearing sour gas or any oil or gas well capable of producing sour gas.

GLOSSARY OF TERMS, continued

Special needs

Those persons for whom early response actions must be taken because they require evacuation assistance, requested early notification, do not have telephones, require transportation assistance, have a language or comprehension barrier, or have specific medical needs. Special needs also include those who decline to give information during the public consultation process and any residences or businesses where contact cannot be made.

Special sour well *(British Columbia specific)*

A designation that reflects the proposed well's proximity to populated centers and its maximum potential H_2S release rate during the drilling state. The casing or open-hole flow configuration is used in arriving at this designation.

Staging Area

A location where incident personnel and equipment are assigned and maintain available status. Staging can also serve as the check-in/check-out point.

Standing well

A well that has been drilled and cased but not perforated. A company is generally allowed to leave the well as standing for up to one year.

State of Local Emergency

A declaration by a local authority providing the necessary authority, resources, and procedures at the municipal level to allow an emergency to be resolved effectively and efficiently.

Sulphur dioxide (SO$_2$)

A colourless, water-soluble, suffocating gas formed by burning sulphur in air; also used in the manufacture of sulphuric acid. SO_2 has a pungent smell similar to a burning match. SO_2 is extremely toxic at higher concentrations. The molecular weight of SO_2 is heavier than air; however, typical releases are related to combustion, which makes the gaseous mixture lighter than air (buoyant).

Surface development

Dwellings that are occupied full-time or part-time, publicly used development, public facilities, including campgrounds and places of business, and any other surface development where the public may gather on a regular basis. Surface development includes residences immediately adjacent to the EPZ and those from which dwellers are required to egress through the EPZ.

Susceptible

The subpopulation of persons who may be considered more sensitive to the effects of H_2S and SO_2, including the elderly, pregnant women, and the very young, particularly preschool-aged children.

Tabletop exercise

As described in CAN/ CSA Z246.2-18, an informal exercise generally used to review resource allocations and roles and responsibilities of personnel and to familiarize new personnel with emergency operations without the stress and time constraints of a major exercise.

Technically complete Emergency Response Plan

A plan that meets all applicable requirements.

Telephoners

Telephoners place calls to residents as directed by the Public Protection Supervisor.

GLOSSARY OF TERMS, continued

Threatening telephone call
Any communication that threatens the well-being of company personnel or property. A form is provided in the manual to capture data from or about a person who calls with a threatening message.

Transient
An individual that is temporarily in the area (e.g. camper, cross-country skier).

Trapper
The holder of a provincial licensed and registered trapline for the purpose of hunting and trapping fur bearing animals.

Uncontrolled flow
A release of product that cannot be shut off at the licensee's discretion.

Unified Command
A method for Cenovus, government and mutual aid resources to take part in a unified decision-making process. Unified Command participants recognize the lines of responsibility and authority but function together to achieve cooperative incident mitigation.

Urban Centre
A city, town, village, summer village, or hamlet with no fewer than 50 separate buildings, each of which must be an occupied dwelling, or any similar development.

Urban density development
Any incorporated urban centre, unincorporated rural subdivision, or group of subdivisions with no fewer than 50 separate buildings, each of which must be an occupied dwelling.

Unrestricted country development
Any collection of permanent dwellings situated outside of an urban centre and having more than eight permanent dwellings per quarter section.

Vapour-air plume / vapour cloud
When released to atmosphere, products form a vapour-air plume that is colourless, heavier than air and has a faint gasoline odour. Depending on the product released and the atmospheric conditions, water vapour may condense to form a cloud.

Vapour pressure
The pressure exerted by the vapour when the rate of evaporation is equal to the rate of condensation of the vapour. All NGL products have vapour pressure greater than atmospheric pressure air and therefore have to be kept under pressure or else they will vaporize.

Warm Zone
The Control Zone immediately surrounding and outside the boundary of the established Hot Zone of an incident.

Water body
Natural or manmade; contains or conveys water continuously, intermittently, or seasonally. A natural water body is any location where water flows or is present, whether the flow or the presence of water is continuous, seasonal, intermittent, or occurs only during a flood. This includes, but is not limited to, the bed and shore of a river, stream, lake, creek, lagoon, swamp, marsh, slough, muskeg, or other natural drainage, such as ephemeral draws, wetlands, riparian areas, floodplains, fens, bogs, coulees, and rills. Examples of a manmade water body include, but are not limited to, a canal, drainage ditch, reservoir, dugout or other manmade surface feature.

GLOSSARY OF TERMS, continued

Well servicing

The maintenance procedures performed on a producing or injecting well after the well has been completed and operations have commenced. Well servicing activities are generally conducted to maintain or enhance well productivity or injectivity.
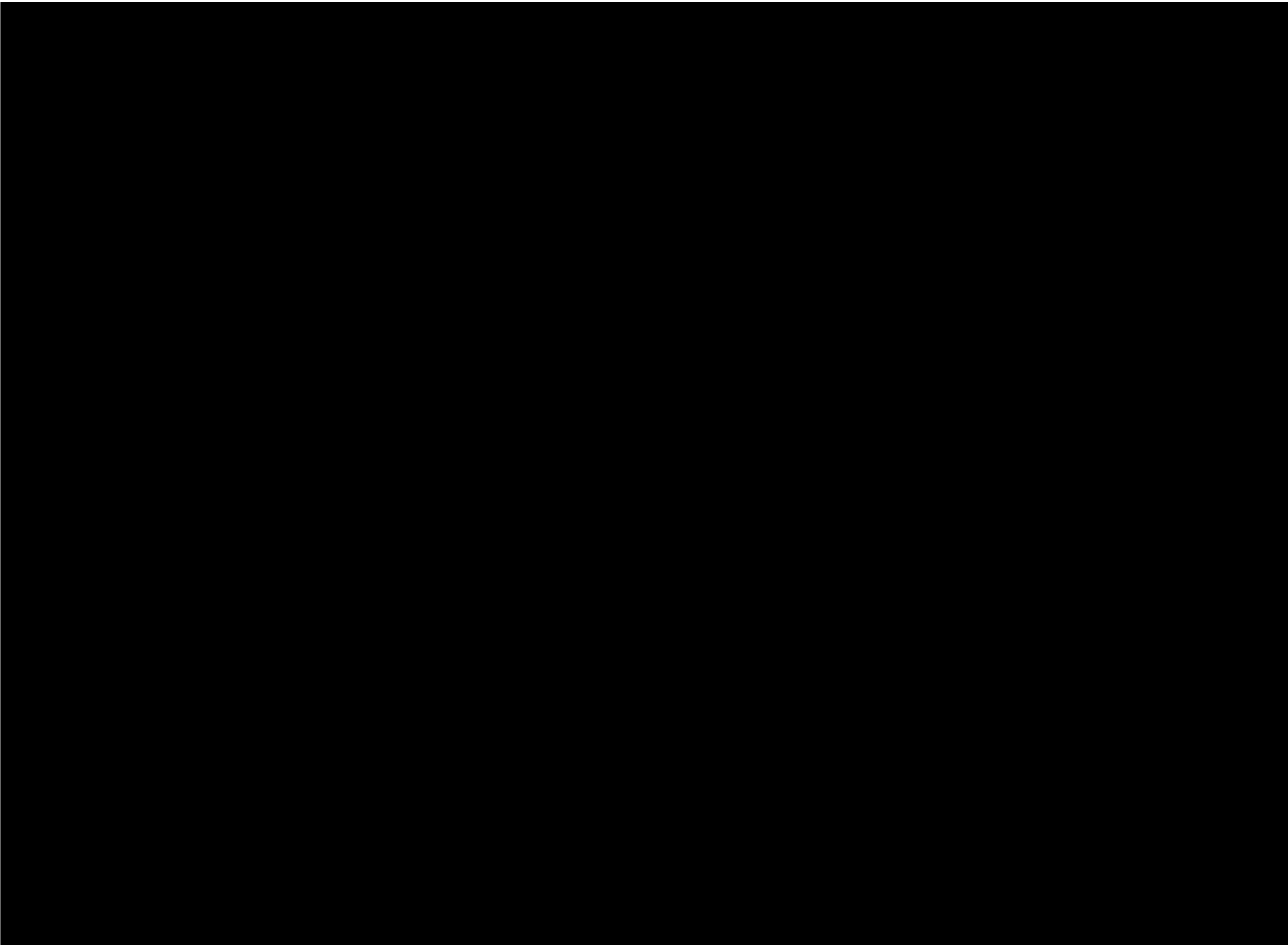
Workover

The process of re-entering an existing well to perform remedial action that will restore or improve the productivity or injectivity of the target formation.

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