



PLAINS
MIDSTREAM
C A N A D A



**WINDSOR STORAGE FACILITY
EMERGENCY RESPONSE PLAN**

EMERGENCY RESPONSE PLAN

Corporate Toll Free 24-Hour Emergency

1-866-875-2554

Note:

Within the ERP, any information that is blacked out has been deemed sensitive and removed from the published redacted version as per the Canada Energy Regulator (CER) Order MO-006-2016. For additional information please contact emergency.management@plainsmidstream.com

Revision History

AMENDMENT PROTOCOL

This Emergency Response Plan will be reviewed, validated and updated as per regulation. Additional updates may be distributed if an identified change is deemed critical or upon the request of the Lead Agency.

All amendments will be distributed to each individual plan holder who will be responsible for incorporating them as they are received. A record of all amendments will be maintained utilizing the Revision History.

If you detect an error, or subsequent to the latest revision date, become aware of any changes to information, please complete an Amendment Request Form found in Section 7: Reference Materials and submit to emergency.management@plains.com.

Date	Summary of Revision	Section/Pages
October 2023	Core	All references of Incident Support Team (IST) changed to Corporate Crisis Management Team (CCMT). Commitment Statements: Removed H&S Commitment Statement, EPP Commitment Statement, EM Commitment Statement, and Security Mgmt Commitment Statement. Revision History (All) Distribution List – Added an additional field copy. Table of Contents (All) Manual Instructions (Pg 1 of 1) – Changed IST to CCMT. Section 0: Overview (All) – Changed IST to CCMT, removed reference of Emergency Response Tactical Plans (ERTP). Section 1.0: Initial Response (All) – Changed IST to CCMT. Section 2.0: Roles and Responsibilities (All) – Revised TOC, Changed IST to CCMT, added Corporate Strike Team (CST), all flow charts revised, revised several role names throughout to reflect IMT and CCMT structure. Section 3.0: (Pg 3-10) – Updated references to IMT and clarification on referring to IMH. Section 4.0: Incident Specific Measures (Pg 4-3) – Revised reference of ERAC to 8.7.1. (Pg 4-9 to 4-11) Additional content regarding Vapour Cloud procedures added. (Pg 4-23) – Removed reference of 8.1 Security Threat Response Plan Standard. Section 5.0: Communications and Media (Pg 4-3) – Reference of ERAC section revised. (Pg 5-5 to 5-7) Revised PMC’s email. Section 6.0: Forms (Pg 6-1, ICS 207 IMT, ICS 207 CCMT) Changed IST to CCMT. Section 7.0: Reference Materials (All) – Revised TOC, Email address revised in Amendment Request Form, changed IST to CCMT throughout section, added CCMT, CST and IRG to acronyms, removed references of ERT.
	Section 8.0: Government Agencies and Local Authorities	(All) – Government agencies and local authorities revised with new regulatory information, company name changes, government notification flowcharts revised to new format. Updated government agency roles and local authority mutual understandings
	Section 9.0: Area Specific Information	(All) – Verified contact information, refreshed EPZ calculations, substances verified, maps revised.

Date	Summary of Revision	Section/Pages
October 2022	Core	<p>Revision History</p> <p>Distribution List – Internal copies revised to only consist of 2 Calgary EOC copies and 4 field office copies. Government agency recipients verified.</p> <p>Table of Contents (All) – Section 2 - Removed ICS Planning, renumbered IMT and IST, added reference to PMC Incident Management Handbook (IM Handbook) revised page numbers throughout all Sections.</p> <p>Manual Instructions (Pg 1 of 1) – Revised Section 2 and 6.</p> <p>Section 0: Overview (Pg 0-2) – Revised government agency names (MB).</p> <p>Section 1.0: Initial Response (All) – Revised TOC, Pg 1-3 Initial Response Checklist, Pg 1-4 Security Response Checklist replaced Initial Response Actions.</p> <p>Section 2.0: Roles and Responsibilities (All) – Revised TOC, Removed ICS Planning Cycle and IMT and added reference to IM Handbook (IMH), replaced references of Field Operators Guide (FOG) with IMH.</p> <p>Section 4.0: Incident Specific Measures (All) – Revised TOC, removed 4.1 Function Support Plans specific contact information, references of eStream changed to MyPlains, revised STRP – Figure 1 STRP Activation – Flowchart, removed Security Incidents Response Guidelines – Hostage, removed note regarding additional FSPs.</p> <p>Section 5.0: Communications and Media (All).</p> <p>Section 6.0: Forms – Revised TOC, Pg 6-1 Form Index, revised the following forms: Security Threat Assessment Form, ICS; 201, 202, 211e, 211p, 214a, 234 and added ICS 214.</p> <p>Section 7.0: Reference Materials (All) – Revised TOC, revised link for Transport Canada Guide for Reporting Dangerous Goods Incidents, removed specific references to Section 9 page numbers, removed references to Section 2 IMT and added reference to IMH, removed Canadian Energy Pipeline Association (CEPA), changed references of FOG to IMH.</p>
	Section 8.0: Government Agencies and Local Authorities	(All) – Government agencies and local authorities revised with new regulatory information, company name changes, government notification flowcharts revised to new format. Updated government agency roles and local authority mutual understandings
	Section 9.0: Area Specific Information	<p>Section 9.1 -9.9 (All) – Support Services verified and revised internally by PMC.</p> <p>Section 9.10 – 9.14 (All) - Calc tables revised, public consultation completed, and pamphlet revised.</p>

Date	Summary of Revision	Section/Pages
October 2021	Updated Core	Revision History Distribution List Emergency Management Commitment Statement Security Management Commitment Statement Health & Safety Commitment Statement Environmental Protection Commitment Statement Table of Contents (i-iv) Section 0: Overview - ALL Section 2.0: Roles and Responsibilities – ALL Section 3.0: Responder Safety and Public Protection -ALL Section 4.0: Incident Specific Measures (Pgs. 4-3 and 4-5) Section 5.0: Communications and Media – ALL Section 6.0: Forms (TOC, Pgs. 6-1 to 6-8, with the addition of WCSS Ice Safety Plan) Section 7.0: Reference Materials (Pgs. 7-25 and 7-47)
	Updated government agency roles and local authority mutual understandings	Section 8.0: Government Agencies and Local Authorities - ALL
	Updated area specific information	Section 9.0: Area Specific Information - ALL
March 2021	Updated the CER Incident Number from 403-807-9473 to 403-299-2773	Section 9.0: Area Specific Information - (Pg. 9-20)
July 2020	Updated Core	Revision History Distribution List Operations Policy Security Management Commitment Statement Health & Safety Commitment Statement Environmental Protection Commitment Statement Table of Contents (i-iv) Section 0: Overview (Pgs. 0-1 and 0-2) Section 1.0: Initial Response – ALL Section 2.0: Roles and Responsibilities IMT Section – 2.12 Legal Officer (Pg. 2-29 and 2-30) Section 4.0: Incident Specific Measures - ALL Section 6.0: Forms (Table of contents i-ii, Pgs. 6-1 to 6-6) Section 7.0: Reference Materials - ALL
	Updated government agency roles and local authority mutual understandings	Section 8.0: Government Agencies and Local Authorities - ALL
	Updated area specific information	Section 9.0: Area Specific Information - ALL
August 2019	Updated Core	Section 2.0: Roles and Responsibilities – ALL Section 7.0: Reference Materials - ALL
	Updated government agency roles and local authority mutual understandings	Section 8.0: Government Agencies and Local Authorities - ALL
	Updated area specific information	Section 9.0: Area Specific Information - ALL
	Updated Core	Section 0.0 - 7.0 - ALL

Date	Summary of Revision	Section/Pages
September 2018	Updated government agency roles and local authority mutual understandings	Section 8.0: Government Agencies and Local Authorities - ALL
	Updated area specific information	Section 9.0: Area Specific Information - ALL
October 2017	Updated ERP to new format	All (New Format)
	Updated Corporate policies	Foreword
	Updated government agency roles and local authority mutual understandings	Section 8.0: Government Agencies and Local Authorities - ALL
	Updated area specific information	Section 9.0: Area Specific Information - ALL

NOTE: During each regulated annual ERP update, all revisions (including dates) are captured in the above Summary of Revision table. Beginning in 2020, PMC will be removing revision dates from footers on every page.

Distribution List

Plan No.	Recipient	Location	ERP Type
Plains Midstream - Corporate			
Plains Midstream – Field			
Government Agencies and Local Authorities			
External Copies			

C = Confidential paper copy
EC = Electronic Confidential

NC = Non-Confidential paper copy
ENC = Electronic Non-Confidential

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1 Policy Statement

Plains commits to conducting our operations in a manner that protects people and the environment. We are committed to the safety and security of the public, our employees, and contractors; the protection and stewardship of the environment, including property; and the safety, security, and integrity of all Plains assets throughout the entire asset lifecycle including design, construction, operation, and abandonment.

Our commitment to this Policy is demonstrated by:

- The Plains Code of Business Conduct with our core values of Safety and Environmental Stewardship; Respect, Fairness, and Inclusion; Teamwork; Ownership and Accountability; Ethics and Integrity; and Entrepreneurship and Innovation.
- Our goals for the prevention of ruptures, releases, fatalities, and injuries; for our rapid and effective response to incidents and emergency situations; and our drive to zero incidents.
- The sustainment and continuous improvement of our Operations Management System (OMS), including but not limited to Asset Integrity, Health and Safety, Damage Prevention, Physical Security, Environmental Protection, and Emergency Management.

All Plains personnel are accountable to follow this Policy.

2 Expectations & Accountabilities

Each Plains operational leader is expected to:

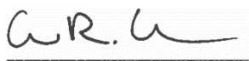
- Foster a culture that creates an environment of trust and demonstrates safety and continuous learning.
- Reinforce expectations that employees follow programs, standards, processes, and procedures, including but not limited to Plains Life Rules.
- Reinforce expectations that employees identify risk and take action to prevent an incident.
- Ensure the OMS and programs, processes, and procedures are developed, implemented, and sustained.
- Protect employees and those who work on behalf of Plains from reprisal for stopping work if an unsafe act or condition is identified or for reporting incidents, near misses, hazards, and potential hazards.

Plains personnel are expected to:

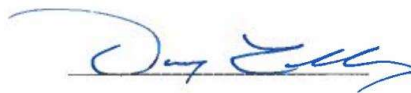
- Follow programs, processes, and procedures including but not limited to Plains Life Rules.
- Identify risk and take action to prevent an incident.
- Stop work without fear of reprisal if an unsafe act or condition is identified.
- Report incidents, near misses, hazards, and potential hazards.

3 Approvals

The following signatories approve this Policy.



Chris R. Chandler
Chief Operating Officer
Plains All American Pipeline, L.P.



Dean Liollo
President and Accountable Officer
Plains Midstream Canada ULC

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NOTE: This section will vary based on the area and operations associated with the ERP. Refer to the Area Specific Information tabs for more details.

Manual Instructions

How to Use the Manual

This manual is arranged with the company response personnel in mind. The first eight sections are what form the PMC Core Emergency Response Plan (Core ERP) and are consistent across all PMC operations and associated ERPs. Sections 8 and 9 contain all area and/or site specific information to each ERP.

Section 0 – Overview

An introduction to the plan that outlines the Emergency Management Program and the emergency response framework.

Section 1 – Initial Response

Provides an Initial Response Checklist to initiate an incident response and activate the Incident Management Team while considering the safety of responders, workers and the public.

Section 2 – Roles and Responsibilities

Outlines the PMC response framework for Incident Management Team (IMT) and Corporate Crisis Management Team (CCMT). It contains roles and responsibilities checklists for all possible CCMT positions. For more information on specific IMT and CCMT roles, refer to the Plains Incident Management Handbook (IMH).

Section 3 – Responder Safety and Public Protection

Processes and considerations to protect responders and to determine the safest way to protect the public during an incident.

Section 4 – Incident Specific Measures

Information and procedures specific to various identified incident types. Note that these are not Standard Operating Procedures and outline general guidelines emergency responders to consider.

Section 5 – Communication and Media

Provides an overview of the Crisis Communications Manual and outlines protocol for emergency communications and general media interactions.

Section 6 – Forms

Includes all forms required in an emergency (Government First Call, Executive Update Form, AER Release Reporting Form, Security Threat Assessment, Incident Command System, Public Protecting Forms and WCSS)

Section 7 – Reference Material

General ERP related information including: regulatory references, plan maintenance, acronyms, glossary terms, and product characteristics.

Section 8 – Government Agencies and Local Authorities

Outlines the notification requirements and contains the roles and responsibilities for lead and supporting agencies that are specific to the ERP. Also includes the roles and responsibilities for local/regional authorities and mutual aid.

Section 9 – Area Specific Information

Outlines emergency response information specific to the area and operations. This includes: contact information, maps, technical data, response equipment, lead agencies, support services and confidential information.



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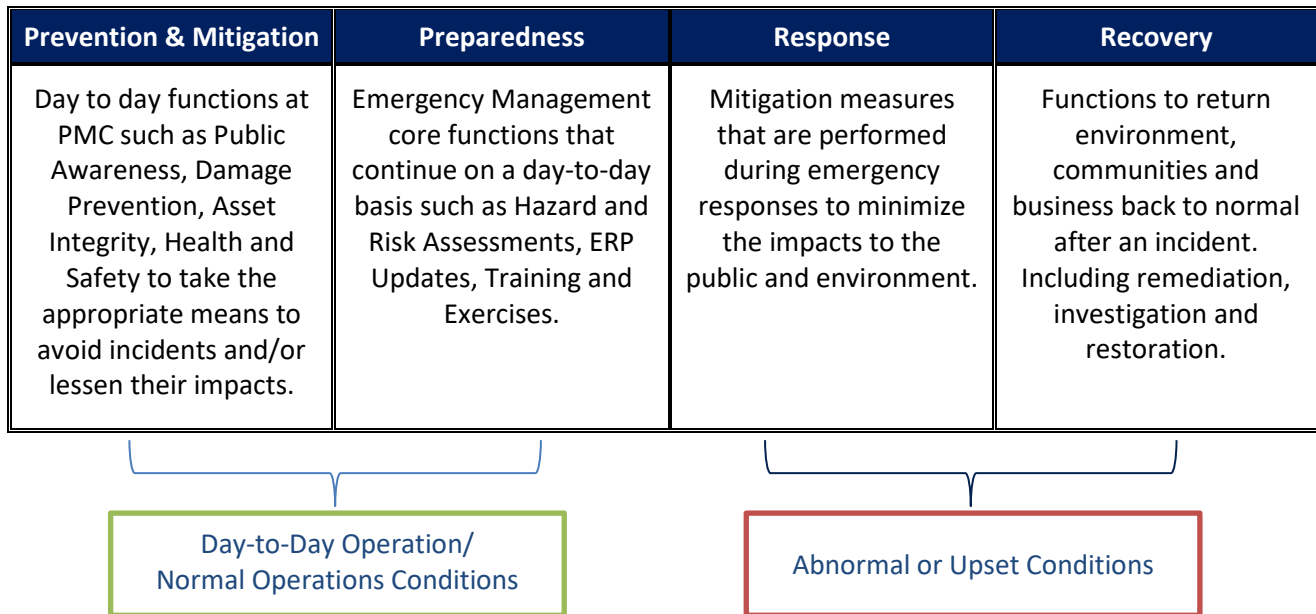
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SECTION 0: Overview

0.1 Introduction

Plains Midstream Canada (PMC) has identified the Core Emergency Response Plan (Core ERP) as a critical component of the Emergency Management Program (EMP). The EMP has been designed, using the four pillars of emergency management, to meet the need to anticipate, prevent, manage, and mitigate conditions during an emergency that could adversely affect the safety of the public, responder, property, and the environment. The Four Pillars of Emergency Management (EM):



As part of the EMP, PMC requires the development of Emergency Response Plans (ERP) focused around the protection of employees, the public, the environment, company assets and reputation. Each ERP consists of two major components and is designed for a particular geographical region, pipeline system and/or critical facility/site.

1. Corporate (Core) ERP – Comprised of Sections 0 through 7 that outline PMC’s emergency response framework and allows for a consistent approach to all emergencies company wide.
2. Area/Site Specifics – Comprised of Sections 8 and 9 that outline all information specific to the ERP including all applicable federal (including ECCC E2) and/or provincial regulatory requirements, outlining applicable assets/operations, and identifying local hazard/response considerations.

A key component for the development of ERPs is the EM consultation program the contact of impacted stakeholders. The EM consultation program consists of the following:

- Public consultations
- Local authority, indigenous community, first responder, and government agency consultations
- Area user notifications

The contacted stakeholders are defined by the EPZ and types of consultations / notifications are defined by the applicable regulatory body. All PMC ERPs are directly supported by the PMC Operations Management System (OMS) and guided by the Operations Policy and the Emergency Management Commitment Statement.

In addition to supporting internal PMC systems, the Core ERP is designed to meet and exceed the regulatory requirements set out by the following regulatory agencies and associated regulations:

- Canada Energy Regulator (CER)
 - Onshore Pipeline Regulations (SOR/99-294)
- Alberta Energy Regulator (AER)
 - Directive 071 and 056
- Saskatchewan – Ministry of Energy and Resources (ER)
- Manitoba Agriculture and Resource Development (ARD) – Petroleum Branch
- Ontario Energy Board (OEB)
- Ontario – Ministry of the Solicitor General – Emergency Management Ontario (EMO)
- Ontario – Technical Standards and Safety Authority (TSSA)
- Canadian Standards Association (CSA)
 - Z246.2, Z731, Z1600 and Z662
- Environment Canada and Climate Change (ECCC)
 - Canadian Environmental Protection Act – Environmental Emergencies (E2)
- Transportation Safety Board (TSB)

0.2 Objective

PMC has developed the Core ERP to assist company personnel respond to emergencies for all operations. The primary objective of the ERP is to clearly define the framework and the tools that facilitate the ability of PMC personnel to respond consistently and effectively to all incidents (operational and non-operational).

The ERP is designed to assist with:

- Activation of the ERP.
- Initial response procedures and tools.
- Internal notification process.
- Incident Command System (ICS) processes and incorporate ICS key principles.
- Response organization and structures.
- Roles and responsibilities checklists for field and corporate level responding personnel.
- Emergency response procedures and guidelines to protect people, the environment and assets threatened in an emergency.
- Notification and communication requirements to all stakeholders (public, government, media, internal, etc.).
- Documentation tools and requirements.
- Fulfill all provincial and federal emergency management regulatory body requirements.
- Required post emergency actions including evaluation and follow up.

In conjunction with the ERP, PMC's adoption and full implementation of the Incident Command System (ICS) ensures that an organizational and systematic response structure will be initiated and established equal to the complexity and demands of an emergency.

0.3 Scope

The PMC Core ERP supports all PMC personnel from field responders on-site that comprise the Incident Management Team (IMT) and Corporate Calgary responders that comprise the Corporate Crisis Management Team (CCMT). It contains the core ERP components, outlined in Sections 1 through 7, that are consistent across all ERPs including area specific. Sections 8 and 9 contain all area and/or site specific information to each ERP.

Section 8 outlines the applicable government agencies, local/regional authority's roles and responsibilities, as well as company-wide and local support agreements with external agencies and mutual aid partners. Section 9 (if applicable) outlines all area specifics including: operations overview, general area overview, contact lists for PMC personnel, external contact lists (government, local authority, first responders, support services, etc.), area user information, site equipment and processes, technical data, maps and confidential resident information.

The PMC Core ERP is guided by the PMC Operations Policy and Emergency Management Commitment Statement and complimented by Functional Support Plans (FSPs). It is aligned with the standards and expectations of first responders, regulators, local authorities and industry partners.

0.4 Emergency Response Framework

0.4.1 Response Principles

1. The highest priority is placed on human life (personal, employees, contractors and the public).
2. ICS is utilized as the foundation for response to all incidents.
3. All responders (field and corporate) are trained to ICS procedures and principles.
4. All responders are trained annually via exercises and role/hazard specific training sessions.
5. The IMT (field responders) are expected to manage the emergency response with support from the CCMT (corporate responders).
6. Responders must 'Get Big Quick' and mobilize as many responders as possible at the onset of an emergency.

0.4.2 Response Organizations

The PMC emergency response framework is comprised of two response organizations that work in conjunction with one another and are in regular communication. Key reporting lines are established between each response organization and communications are encouraged between leadership roles within each.

0.4.3 Incident Management Team (IMT)

- Based in the field at the Incident Command Post (ICP).
- Responsible for managing the emergency response and all field level (tactical) emergency response actions.
- Managed by the Incident Commander and initially comprised of local and nearby area personnel. Other company personnel who are trained to respond may take IMT roles as well as external agencies/company personnel, as required.
- Deputy Incident Commander must be established communicates and report to the Crisis Manager (CCMT) at the EOC.
- IMT leadership is comprised of:
 - Command Staff: Incident Commander, Deputy Incident Commander, Safety Officer, Liaison Officer and Public Information Officer.
 - General Staff: Operations, Planning, Logistics and Finance/Administration Section Chiefs.

0.4.4 Corporate Crisis Management Team (CCMT)

Comprehensive team established at the Emergency Operations Centre to support the field and IMT response. The CCMT provides direction and support for local actions with emergency management response guidance, designed to enhance the local facility's emergency plan and capabilities; while also managing external pressure(s) from the media, local community or other stakeholders to allow the local response team to focus on containing the issue itself.

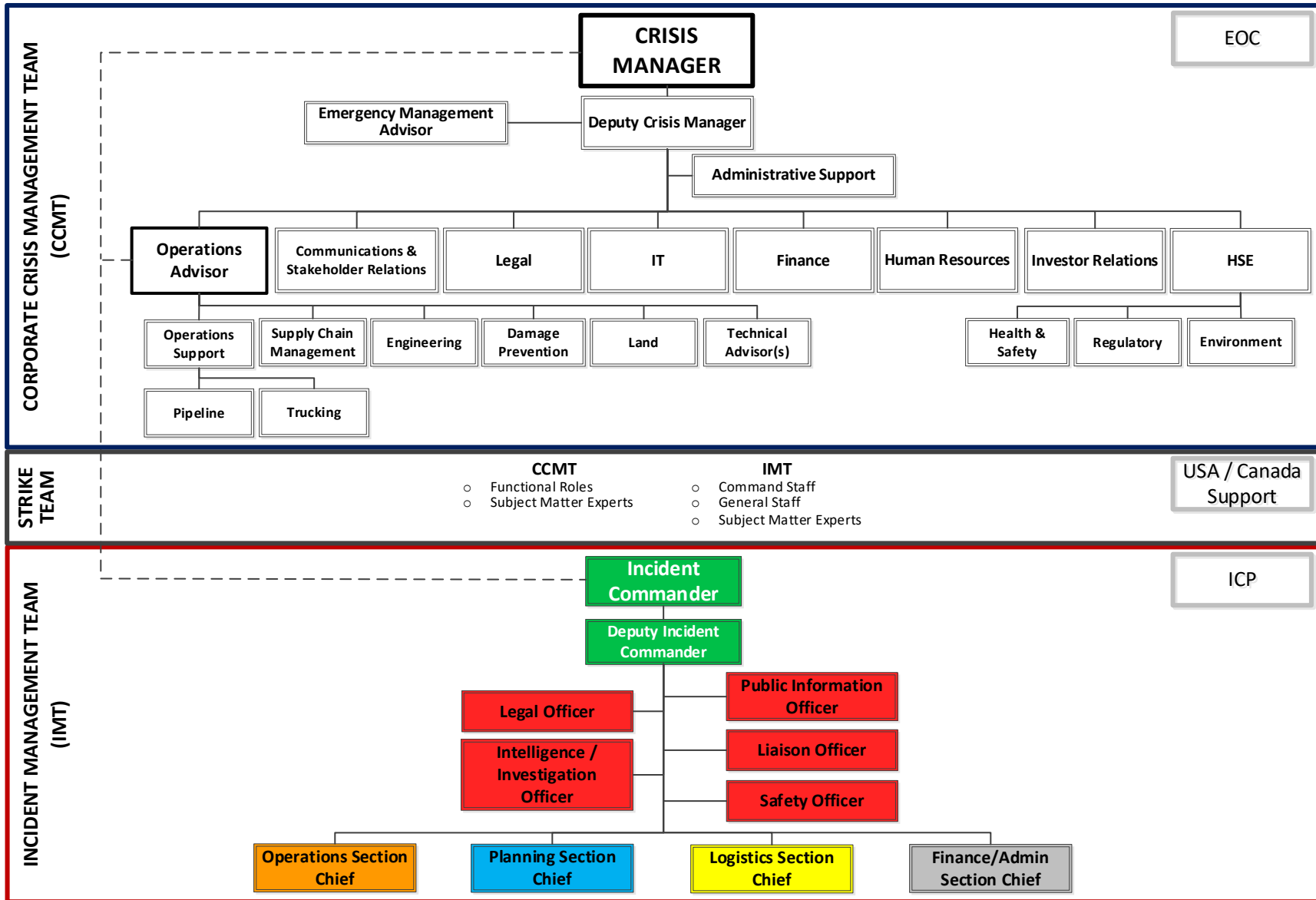
The Corporate Crisis Management Plan (CCMP) is designed to:

- Establish a framework and structure for the CCMT.
- Define criteria for classifying levels of response.
- Establish standardized notification and activation procedures.
- Identify roles and responsibilities for CCMT members and other key personnel.
- Prepare Plains to communicate effectively to all audiences during the event.

0.4.5 Corporate Strike Team (CST)

The Corporate Strike Team (CST) is comprised of enterprise-wide personnel that respond to the local incident scene and directly support the on-site Facility Response Team through the Incident Command Structure (ICS). The CST is responsible for communicating and coordinating activities through the Responsible Party Incident Commander (RPIC).

0.4.6 Response Organizational Structure



NOTE: Roles and responsibilities are assigned based on the needs of the incident and span of control.

0.4.7 Incident Command System

PMC has adopted and fully implemented the Incident Command System (ICS) at all levels within the organization. ICS is a comprehensive and practical system widely used nationally and internationally by both government and industry sectors to manage emergencies. It is a standardized, on scene, management system used for all types of emergency and non-emergency events. PMC has adopted the following core and consistent incident priorities for all emergencies:



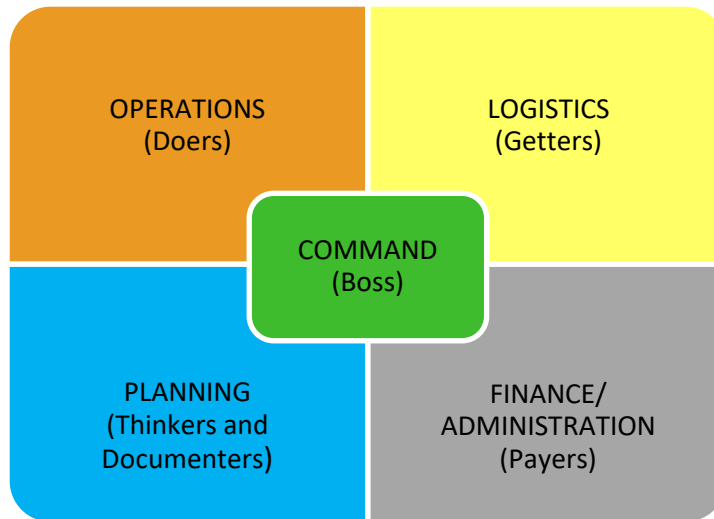
All PMC personnel are trained to the following ICS principles and features that include:

- Common Terminology
- Establishment and transfer of command
- Chain and unity of command
- Unified command
- Management by objectives
- Incident Action Plan (IAP)
- Modular (flexible) organization
- Manageable span of control
- Comprehensive resource management
- Incident location and facilities
- Integrated communications
- Information and intelligence management
- Personnel accountability
- Dispatch / Deployment

PMC personnel will use the ICS Planning Cycle (Planning “P”) and ICS Forms to manage a response to an emergency.

PMC focuses training and formulates emergency responses based on the **management by objectives** principle. This is a systematic and organized approach that involves establishing and prioritizing common objectives to guide the actions of all responders. This approach allows responders to focus on achievable goals and to attain the best possible results from available resources. At the onset of an incident the incident priorities (life safety, incident stabilization and minimizing impacts) provide guidance for the objectives and are documented on the *ICS 201*. The incident priorities will act as the objectives until there is time to define SMART objectives that will also be added to the *ICS 201*. During a prolonged response the incident priorities are utilized to define and prioritize objectives within the **Incident Action Plan (IAP)** that are specific to the incident and hazard/area considerations. All incident communication, reporting and assignments occur using **common terminology** through clear text/speech and specific details without the use of slang, codes or acronyms. Roles and responsibilities are then identified based on the strategies and tactics that are outlined to achieve the established objectives. This works in conjunction with the principle for modular organization and the development of an organizational structure specific to the incident.

There are five primary ICS management functions that apply to both the Incident Management Team (IMT) and Corporate Crisis Management Team (CCMT):



Command	The Incident Commander is responsible for <u>all</u> response actions until additional functions and positions are assigned. Additional functions include the Command Staff that is comprised of the Safety Officer, Liaison Officer and Public Information Officer as well as General Staff comprised of Operations, Planning, Logistics and Finance/Admin.
Operations	Operations is responsible for directing all field tactical actions that include all responder and public safety actions, incident stabilization as outlined in the Incident Action Plan. It includes identification of personnel and equipment resources required to carry out tactical operations.
Planning	Planning is responsible for the collection, evaluation, dissemination, maintenance and display of incident information, and preparation of the Incident Action Plan to be executed by the Operations Section. It is also responsible for predicting the potential of the incident and to assess and recommend response tactics and countermeasures.
Logistics	Provides support to response operations by ordering resources and services, tracking and notifying responding personnel once they are available.
Finance/Admin	Ensures funding is available and tracked for response actions, monitors, manages, and tracks response related cost-accounting including time recording, claims and compensation.

The five primary ICS management functions are utilized by the Incident Commander. Once the incident has been assessed and it has been determined that the ERP will be activated, field personnel will be mobilized to create an Incident Management Team (IMT) organizational structure specific to the hazards and needs/complexity of the emergency response. At PMC the Corporate Crisis Management Team which provides support to the Incident Management Team, **Crisis Manager** follows a similar process, however mobilizes corporate personnel to create the Corporate Crisis Management Team (CCMT) organizational structure specific to the incident and supporting the IMT. The creation of the organizational structure helps to ensure the following:

- **Unity of command** – Each responder reports to and receives direction from one source.
- **Chain of command** – Outlines an orderly line of authority primarily focused on Section Chiefs, Branch Directors and single resources.
- **Span of control** – Refers to the number of reports one person may have. It may range from 3-7 but the optimal number is 5.

All tactical resources are assigned to the **Operations Section** and the most hazardous activities are carried out there. Because of this, it is necessary to carefully monitor the number of resources that report to any one supervisor.

The following supervisory levels can be added to help manage **span of control**:

- Divisions are used to divide an incident geographically.
- Groups are used to divide functional areas of operation.
- Branches are used when the number of Divisions or Groups extends the span of control and can be either geographical or functional. Within Branches:
 - Unit – That organization element having functional responsibility for incident, logistics, or finance/administration activity.
 - Task Force – A group of unlike single resources assigned to complete certain tactical assignments.
 - Strike Team – Similar to a Task Force but comprised of the same kind and type of resources to complete tactical assignments.

When responders are mobilized, they may be dispatched and/or report to any of the following **incident facilities**:

Incident Command Post (ICP)	The facility location where the command functions are carried out and the Incident Management Team resides. Typically located in close proximity to the incident. There should only be one ICP per incident response.
PMC Emergency Operations Centre (EOC)	The facility location established for the Corporate Crisis Management Team to carry out their functional responsibilities and check-in. It is located in the Calgary PMC Plaza.
Staging Area	A temporary location established by the Operations Section Chief for incident personnel and equipment to check-in and be immediately available for deployment on a tactical assignment. There may be multiple staging areas based on incident needs and are managed by a Staging Area Manager.
Heli-base	The main location from which helicopter-centred air operations are

	conducted.
Heli-spot	Temporary location for helicopters to safely load and unload personnel and cargo.
Reception Centre	A facility established for evacuated residents to check-in and for responders to assess their needs. There may be multiple reception centres based on incident needs.

The process of moving the responsibility from one Incident Commander to another is called **transfer of command** and generally occurs for expanding incidents and/or incidents spanning over multiple operational periods. There are 4 key steps to consider during transfer of command:

1. The outgoing Incident Commander should conduct an assessment with the incoming Incident Commander.
2. The Incoming Incident Commander must be adequately briefed on the *ICS 201 or current IAP*.
3. After the incident briefing, the incoming Incident Commander should determine an appropriate time for transfer of command.
4. At the appropriate time, notice of a change in incident command should be made to all responders.

Similarly, transfer of personnel follows the same principles and occurs when responsibility is moved from one responder to another. Transfer of command and/or personnel should be planned to ensure there are no impacts during the transition period.

NOTE: Section 2: Roles and Responsibilities include checklists for 2.5 Transfer of Personnel (all responders) and 2.6 Transfer of Command (Incident Commanders).

Unified Command may be needed for an incident response involving multiple jurisdictions or agencies. Unified Command is an authority structure in which the role of incident commander is shared by two or more individuals. Unified command is one way to carry out command in which responding agencies and/or jurisdictions with responsibility for the incident response share incident management.

If a Unified Command is needed, Incident Commanders representing agencies, jurisdictions, or organizations that share responsibility for the incident manage the response from a single Incident Command Post. A Unified Command allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively without affecting individual agency authority, responsibility, or accountability. Under a Unified Command, a single, coordinated Incident Action Plan will direct all activities. The Incident Commanders will supervise a single Command and General Staff organization and speak with one voice.

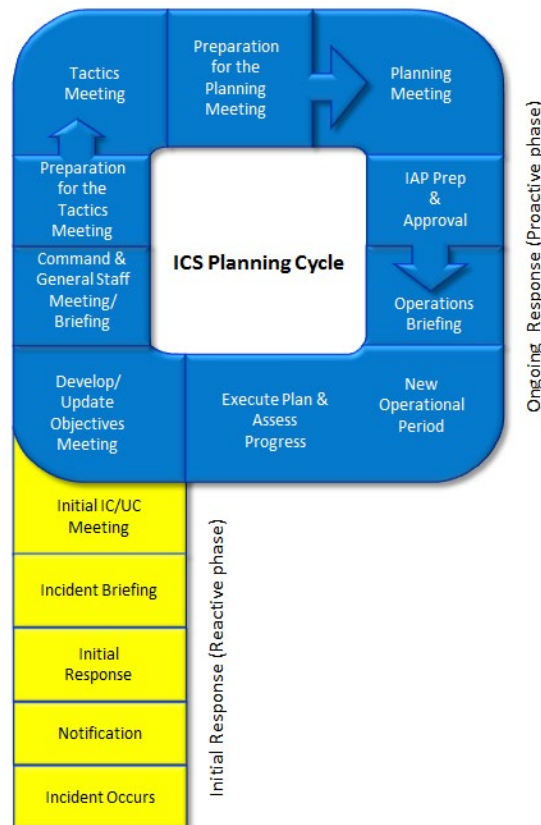
0.4.8 ICS Planning Cycle

Sound, timely planning provides the foundation for effective incident management. The Planning “P” acts as a guide to the ICS planning cycle and outlines steps involved in the strategic, operational, and tactical planning for an incident.

The ICS Planning Cycle (Planning “P”) is used by the IMT Command Staff and General Staff in the Incident Command Post (ICP) to manage and execute Incident Action Plans (IAP) during each operational period.

The stem of the “P” outlines the Initial Response (Reactive phase) that takes place at the onset of the incident (first operational period) and focuses on the completion of the **ICS 201**. These steps include: Notifications, Initial Response, Incident Briefing, and Initial Incident Command (IC)/Unified Command (UC) Meeting. The actions associated with these steps are outlined in *Section 1: Initial Response* and the *Initial Response Checklist*.

The top of the “P” outlines the planning cycle known as the Ongoing Response (Proactive phase). The planning cycle steps work towards the completion of an IAP for the next operational period. These steps include: *Develop/Update Objectives Meeting, Command and General Staff Meeting, Preparing for the Tactics Meeting, Tactics Meeting, Preparing for the Planning Meeting, Planning Meeting, IAP Prep & Approval, and Operations Briefing*. The completed IAP should outline the objectives, strategies and tactics for the last step of the cycle (*Execute Plan & Assess Progress*). At this point, the planning cycle begins again for the following operational period. Full details of the ICS Planning Cycle steps and meetings are outlined in *Section 2: Roles and Responsibilities – ICS Planning Cycle*.





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SECTION 1: Initial Response

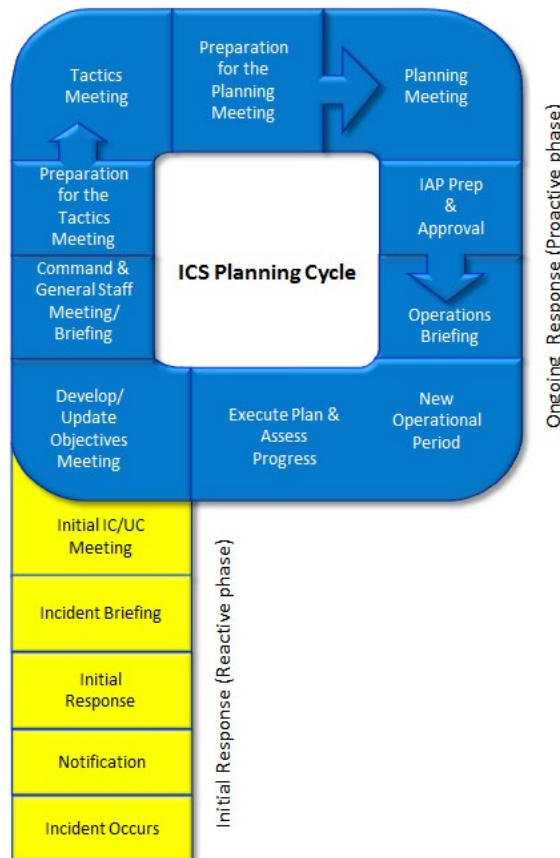
1.1 Introduction

The Initial Response section provides guidance for all responders, with a heavy focus on the Incident Management Team (IMT) to respond to an emergency during the first operational period. Initial Response (reactive phase) is comprised of: *Notification, Initial Response, Incident Briefing, and Initial IC / UC Meeting*; the yellow boxes indicated below within the stem of the Planning “P”.

An Initial Response Checklist has been created to assist with the majority of these actions and it revolves around the completion of the *ICS 201 Incident Briefing Form*. The *ICS 201* acts as the Incident Action Plan and captures all information for the first operational period.

The Initial Response Checklist and *ICS 201* are documents which need to be used to guide the initial response and document all actions. These documents are then used to help conduct the Incident Briefing and the Initial Incident Commander / Unified Command Meeting. The details (purpose of the meeting, agenda items and attendees) for these two steps are outlined at the end of this section.

NOTE: The Initial Response process and actions for the CCMT and Corporate responders are outlined in Section 2: Roles & Responsibilities – CCMT.



1.2 First on the Scene Actions

The highest priority is personal safety. First responders should consistently approach every incident and hazard by taking the following actions.

1. **Evacuate** - Remove yourself from the hazard area and direct others to a designated safe area. Take a head count as applicable.
2. **Alarm** - Alert other area personnel, immediately contact the Olds Operational or Local Authorized Control Centre and notify emergency services, if required.
3. **Assess** - Do an initial assessment of the situation. Identify and control hazards and risks.
4. **Protect** - Control entry into the immediate hazard area and put on the appropriate personal protective equipment.
5. **Rescue** – Safely enter the hazard area to recover any injured /missing personnel as applicable.
6. **First Aid** - Once the casualty has been removed to a safe area, assess the casualty's conditions and apply the appropriate first aid. Ensure local emergency services have been contacted and arrange for transport.

1.3 Initial Response Checklist

PMC has developed a quick reference Initial Response Checklist to assist response personnel with the actions required at the onset of an emergency. This checklist provides a general guideline for the Incident Commander. The Incident Commander is responsible to ensure that all steps are addressed and may delegate responsibilities to other responders as required. Note that some actions may not be applicable given the nature of the incident. The checklist is organized into six steps. Each outlined step has additional supporting information regarding the actions and considerations required to fully complete the Initial Response (reactive phase) process.

PMC has adopted the ICS incident priorities for all emergencies and use them as the initial objectives for all initial response actions. These priorities are:





INITIAL RESPONSE CHECKLIST

Notifications

- Complete the *Initial Response Guidebook (IRG) Initial Notifications Form*
 - District Manager
 - HSE Representative(s)
 - Regulator
 - Division Director
 - Oil spill response contractors
 - Mutual aid organizations
 - Control Center
 - Support services
 - Local companies
- Begin to establish an Incident Management Team (IMT)

Initial Actions and Assessment

- Secure the site, incident area and/or emergency planning zone (EPZ)
- Consider evacuating the area (or facility) and/or non-critical personnel, as required
- Ensure completion of the *IRG Critical Information Report*
 - Location & Asset type
 - Workers involved & Injuries
 - Security impacts
 - Current situation
 - Public impacts
 - Assistance/equipment requirements
 - Product type & volume released
 - Environmental impacts
 - Incident Picture & ERG App Screenshot

Note: For security incidents refer to the Security Response Checklist.

Document Initial Actions

- Begin updating the *ICS 201 Incident Briefing Form*
 - Map
 - Safety considerations
 - Current actions
 - Incident details
 - Priorities
 - Organizational chart
 - Current situation
 - Objectives
 - Resources
- Ensure completion of the *IRG Initial Incident Site Safety and Health Plan*
- Provide an update to all responders and leadership
- Determine with leadership if the EOC needs to be activated
- Identify the applicable ERP and site specific information

Level of Emergency*

For operational incidents, refer to *Incident Classification Matrix* for guidance

- | | | | |
|---------------------------------------|---|---|---|
| <input type="checkbox"/> Alert | <input type="checkbox"/> Level 1 | <input type="checkbox"/> Level 2 | <input type="checkbox"/> Level 3 |
|---------------------------------------|---|---|---|

- Communicate the level of emergency to the Control Center, EOC, all responders, and regulators

Incident Details

- Continue to gather incident details
- Determine and/or confirm the public safety and responder zones - EPZ, Hot/Warm/Cold Zones, etc.
- Determine public protection measures to ensure public safety - evacuation, shelter-in-place, ignition
- Identify all potential impacts/hazards and define sensitive areas - weather, public, environment, etc.

Activate Emergency Response Protocols

- 'Get Big Quick' - Mobilize personnel, services and equipment required
- Activate and establish incident facilities - ICP, EOC, staging area, reception centre, etc. (as required)
- Establish communications between incident locations, facilities, and responders
- Activate and populate an incident specific *VEOC/VICP site**
- Develop a Safety Plan, including applicable SOPs, FLHAs, etc. (*ICS 208*)
- Document response actions and plans (*ICS 201, ICS 207, ICS 211 p/e & ICS 234*, as required)

Incident Briefing and Next Steps

- Conduct Initial Incident Briefing (Review current *ICS 201* from the IMT)
- Establish SMART objectives, strategies and tactics (*ICS 234*)
- Assign roles & responsibilities to accomplish strategies and tactics (*ICS 207-IMT*)
- Populate the *Situation Status Display Board* with current information

*For Canadian operations only

Security Response Checklist

Threat Assessment Tool

Complete the Threat Assessment Tool: **Likelihood – Medium or High (Realistic) – Initiate Security Notifications**

Likelihood – Low (Non Realistic)

Likelihood – Medium (Realistic)

Likelihood – High (Realistic)

Security Notifications

- Notify Plains Supervisor, District Manager, Director Operations, Sr. Vice President
- Contact local law enforcement via Non-Emergency number, use 911 if required
- Notify the Operational Control Centre (OCC) and issue a PINS/Maximo Incident and/or Service Desk (for Cyber Incident)
- Notify Information Services Corporate Crisis Management Team distribution list (Dist-GRP-IncidentSupport) (for Cyber Incident)
- Notify the Security Management Department and/or Information Services (for Cyber Security)
- Activate EOC and/or ICP

Document Initial Actions

- Begin documenting all actions on **ICS201** Incident Briefing Form
 - Record initial incident details (type of incident, location, personnel, communications, response details)
 - To achieve incident priorities - *Life Safety, Incident Stabilization and Minimize Impacts*
- Consider site evacuation to Muster Points
- Begin completing the **Security Threat Assessment Form** (for Security and/or Cyber Security Incidents)

Security Threat Response Plan (STRP) Standard

- Complete Security Threat Assessment Form
- Determine **Plains Security Threat Level:** **Low Threat** **Medium Threat** **High Threat**
- Conduct Security Threat Briefing and review Security Threat Level with Plains Management and ICP/EOC
- Liaise with Plains Officer for final approval to raise Security Threat Level
- Implement Countermeasures for Medium/High Security Threat Level as required
- Notify – Internal Notifications and External Notifications
- Activate Site Specific STRP and/or Cyber Security Functional Support Plan (if required)

Activate - ERP

- Determine the **Level of Emergency:** **Alert** **Level 1** **Level 2** **Level 3**
- Communicate the Security Threat Level And Emergency Level
- Notify the lead Regulatory Body (AER, NEB, MECON, EMO, Transport Canada, USCG, TSA, DHS, ETC) as required
- Incident Response Classification (*Refer to 1.3.4.2. Incident Classification Matrix*) for response activities
- Evacuate facility and/or non-critical personnel, as required
- Activate and establish incident facilities - ICP, EOC, staging area, reception centre, etc.
- Complete an *ICS 211p* &/or *ICS 211e* at all incident facilities and response locations
- 'Get Big Quick' - Mobilize personnel, services, and equipment required
- Develop a Safety Plan (including applicable *SOPs, FLHAs, etc.*)
- Update the **ICS 201, Security Threat Assessment Form, ICS 207 and/or ICS 234.**
- Consider utilizing Security Intelligence Officer

Site Evacuation

Evacuation as per local procedures and ensure 100% of personnel are accounted for; this includes all Plains employees, contractors, and visitors on site. The following points should be observed:

- Personnel should leave office doors open as they leave (**suspect package only**)
- Personnel should take their personal belongings with them (e.g. purse, lunch bag, and briefcase).
- Instruct personnel to be observant during evacuation and report any suspicious packages or activities immediately.
- Personnel must be instructed NOT to post information on social media or contact people outside of the Plains organization

1.3.1 Notifications

In the case of an emergency, internal and external notifications must be made. This step outlines the required notifications along with processes for doing them. Specifically, the Notification Flowchart outlines who needs to be contacted, the order that notifications occur and the related decisions and actions.

PMC Field Leadership will be notified of a potential incident or emergency through one of three avenues.

1. Member of the public contacts the local emergency number.
2. PMC employee/contractor identifies an emergency and contacts the Area Supervisor and/or the Olds Operational or Local Authorized Control Centre.
3. Olds Operational or Local Authorized Control Centre detects an issue or receives a system alert and contacts the Area Supervisor and on-call H & S Advisor.

1.3.1.1 Internal Notification

The first responder must immediately notify the Area Supervisor and Olds Operational or Local Authorized Control Centre. Regardless of the notification method, the Control Centre will contact the applicable Area Supervisor and the on-call EH & S Advisor, as well as issue a PMC Incident Notification System (PINS) email. The Area Supervisor will contact the District Manager and they will contact the Director, Operations, who will assume the role of the Incident Director. The Incident Director will assist with evaluating the resources available in the field and fill any gaps with Corporate Head Office responders or complete responsibilities from the EOC. The notification process is outlined in the *1.3.1.3 Notification Flowchart*. All incident and response details must be documented in the *ICS 201* and all personal activities, communications and decisions must be documented in an *ICS 214a*.

Note: Refer to the 'Incident Reporting and Investigation Program' for additional requirements.

1.3.1.2 External Notification

External notifications must happen simultaneously with internal notifications. The following notifications must occur immediately once the incident has been verified.

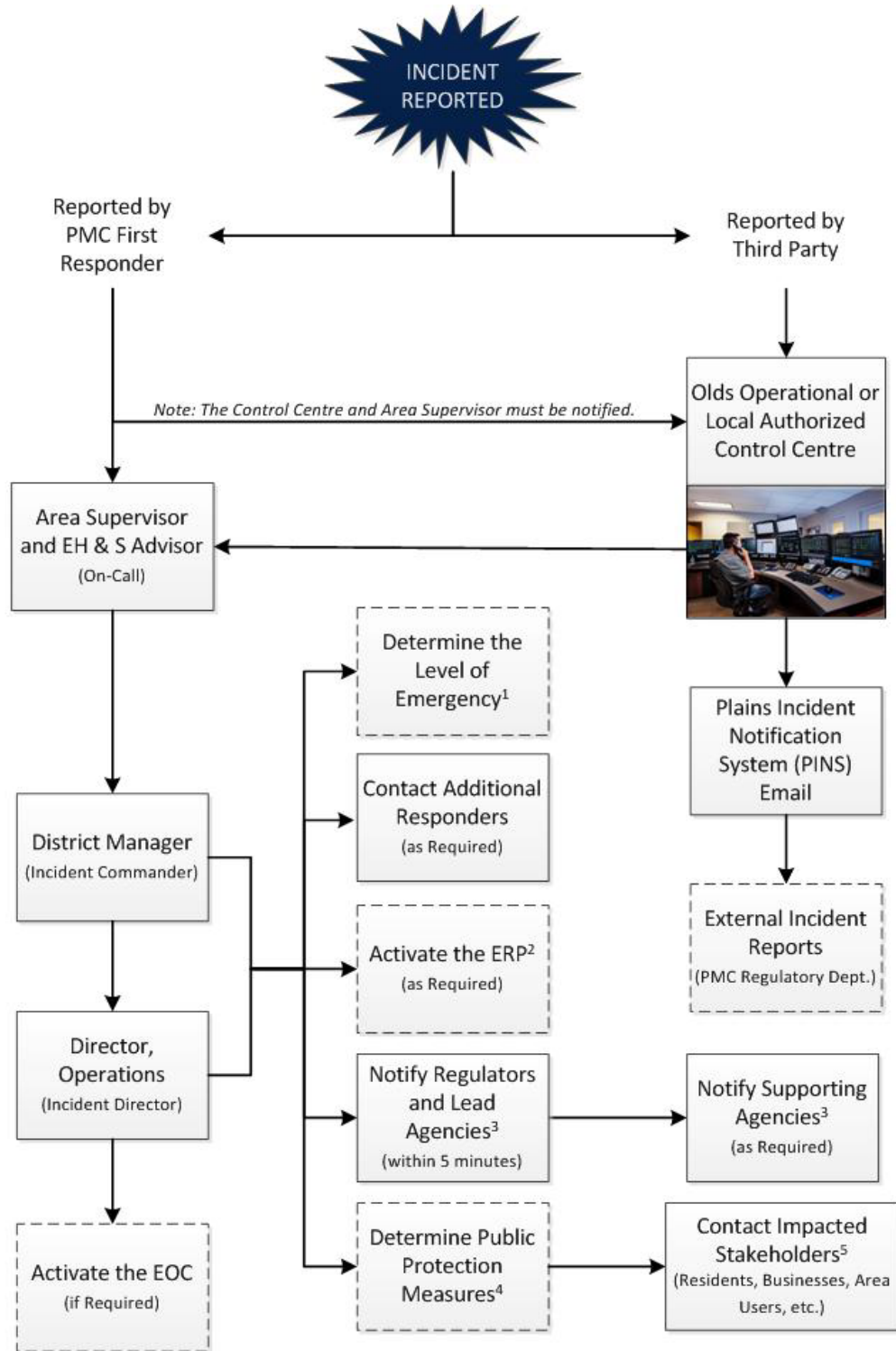
- PMC First Responder notifies 911, if required.
- Incident Commander must ensure the lead regulatory body, local authorities, indigenous communities, mutual aid organizations, and other local companies.
 - This may be delegated to the Liaison Officer, Liaison Manager or Deputy Incident Commander, if established.

Additional notifications to government and supporting agencies must be made once emergency response protocols are activated. These notifications can be made by the Liaison Manager (CCMT) and/or Liaison Officer (IMT). Refer to *8.3 Government Notification Matrix*. When contacting external agencies, ensure that the following information is recorded:

- Agency contacted, point of contact, date/time of call, and information provided/requested.

Once external agencies (government agencies, first responders, local authorities, indigenous communities, etc.) are notified and engaged, PMC will work with the appropriate lead agencies to determine if Unified Command should and/or will be established.

1.3.1.3 Notification Flowchart



¹Refer to 1.3.4.1 Incident Classification Matrix to determine the level of emergency

²Refer to 1.3.5 Activate the ERP for procedures and considerations.

³Refer to the 8.4 Notification Requirements to determine all agencies and services that need to be contacted.

⁴Refer to 4.8.3 Public Protection Measures Flowchart.

⁵Refer to Respond emergency response mapping and/or Section 9: Site Specific Information to determine the EPZ on an area map and identify pertinent contact information in the sealed confidential envelope.

1.3.2 Initial Actions and Assessment

Initial actions to prevent and/or limit the impact to life safety must immediately be identified and resources deployed. This includes:

- PMC first responders investigate and confirm the incident (if required)
- Initial Incident Commander and Operations Section personnel perform initial response actions
- Evacuate non-critical personnel from the incident area and/or facility (if required)
- Secure the incident area
- Determine, secure, and isolate the EPZ
- Record and begin to establish an Incident Management Team (IMT)

Note: Initial actions and incident details/information can be recorded after immediate impacts to life safety have been addressed.

The incident and associated impacts must initially be assessed. The Incident Commander is responsible for gathering all incident details, but the collection of this information may need to be assigned to additional personnel, such as a Safety Officer, Operations Section Chief, and/or Operations Section personnel.

At the onset of an incident all details and impacts may not be available. Begin collecting and recording incident details. Continually record information as it becomes available and the response progresses.

- Location
- Asset type
- Product type and SDS (if available)
- Estimated volume released
- Impacts to watercourses
- Geographical impacts
- Workers involved and injuries
- Public impacts
- Media attention
- Any other potential consequences

For guidance, refer to *Initial Assessment Checklist* found in the Emergency Response Forms Binder and at the Incident Command Post (ICP) in the Emergency Response Forms Box.

1.3.3 Document Initial Actions

Ensure that all initial response actions and incident details are recorded in the *ICS 201 Incident Briefing Form (ICS 201)*. The *ICS 201* is the key tool to the initial response process that provides guidance for documenting all incident details, actions and response plans. There will be only one *ICS 201* and it will continually be updated throughout the initial response until an Incident Action Plan (IAP) has been prepared for the second operational period and the first operational period is coming to a close. The *ICS 201* outlines:

- Incident details
- Current actions
- Strategies and Tactics to achieve the incident priorities and initial objectives
 - Life safety, incident stabilization and minimize impacts
- Response Organizational Structures (*ICS 207*)
- Resource statuses and assignments

The Incident Commander utilizes the most up to date *ICS 201* to provide any new responders with incident briefings as required.

1.3.4 Level of Emergency

PMC utilizes a standard assessment matrix to classify all emergencies and outline the required notifications and actions. If an incident is classified as an emergency at any level higher than Alert, the ERP must be activated.

The level of emergency should be discussed with the lead regulatory agency and must be determined in conjunction with the AER (if the incident falls within their jurisdiction). Utilize *1.3.4.1 Incident Classification Matrix* to identify the consequences of the incident and the likelihood of incident escalation to calculate the level of emergency. The level of emergency defines the appropriate incident response actions outlined in *1.3.4.2 Incident Response Classification*. Ensure that all information is recorded in the *ICS 201*.

Once confirmed, the level of emergency must be communicated to the Operational Control Centre (OCC), the Emergency Operations Centre (EOC), the Incident Director and all responders.



1.3.4.1 Incident Classification Matrix

Table 1		
Consequence of Incident		
Rank	Category	Example of consequence in Category
4	Catastrophic	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Worker(s) require 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	<ul style="list-style-type: none"> First aid treatment required for on-lease 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	<ul style="list-style-type: none"> No worker injuries. Little 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	<ul style="list-style-type: none"> The incident is uncontrolled and there is little chance that the licensee will be able to bring the hazard under control in the near term. The licensee will require assistance from outside parties to remedy the situation.
3	Likely	<ul style="list-style-type: none"> Imminent and/or intermittent control of the incident is possible. The licensee has the capability of using internal and/or external resources to manage and bring the hazard under control in the near term.
2	Moderate	<ul style="list-style-type: none"> Control of the incident may have deteriorated but imminent control of the hazard by the licensee is probable. It is unlikely that the incident will further escalate.
1	Unlikely	<ul style="list-style-type: none"> The incident is contained or controlled and it is unlikely that the incident will escalate. There is no chance of additional hazards. Ongoing monitoring required

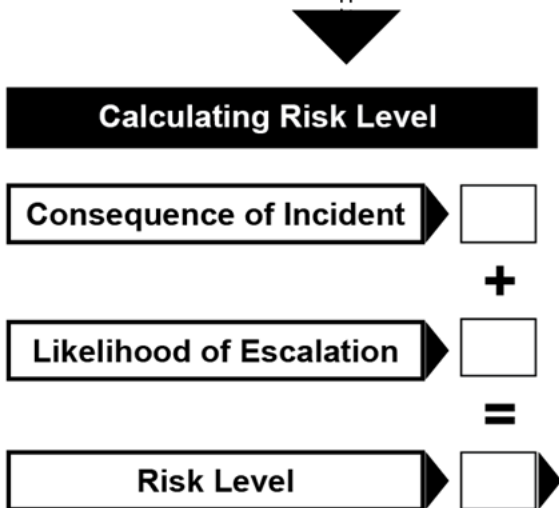


Table 3 - Incident Classification	
Risk Level	Assessment Result
Very Low 2-3	Alert
Low 4-5	Level - 1 Emergency
Medium 6	Level - 2 Emergency
High 7-8	Level - 3 Emergency

1.3.4.2 Incident Response Classification

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

1.3.5 Incident Details

As the response continues, incident details must continually be collected. This will assist with the following:

- Determine appropriate response actions
- Define Emergency Planning Zone (EPZ) or Environmental Emergency (E2) Zone
- Define responder safety zones (I.e. Hot/Warm/Cold Zones and Decontamination Corridor)z
- Identify potential impacts, hazards and sensitive areas
 - Weather, public, environment, etc.
- Conduct and document field level hazard assessments
- Release reporting requirements
 - Refer to *PMC Release Reporting Standard Procedure*

Consider the following aspects when collecting incident details. For assistance with documentation, refer to the *Initial Assessment Checklist* found in the Emergency Response Forms Binder and at the Incident Command Post in the Emergency Response Forms Box.

- Collect key information regarding initial incident details
 - Location (E.g. access to services, available personnel, traffic, etc.)
 - EPZ identified in the ERP and impact to the public
 - Area considerations (E.g. forests, highways, hydrology, topography, urban centres, etc.)
 - Weather conditions (E.g. speed/direction of wind, temperature, condensation, etc.)
 - Egress in and out of the incident location and road conditions
- Assess the hazards, and corresponding controls
 - Identify the product, quantity and state that the product(s) are in (Ex. liquid or gas)
 - Refer to the associated Safety Data Sheets (SDS) for additional health and safety hazard information.
<http://www.plainsmidstream.com/page/safety-data-sheets>
 - Determine the fire footprint (Ex. extent of impact, air quality, etc.)
 - Determine the spill foot print (Ex. extent of impact, nearby water bodies, product considerations, etc.)
 - Identify any other hazards that may potentially escalate impacts or impact PMC's ability to control or contain the incident (Ex. electrical, power lines, mechanical, overhead equipment, confined space, ambient temperature, wind direction and speed, etc.)
 - Order/Deploy mobile air monitoring equipment (Ex. LEL, H₂S, SO₂, O₂, benzene, etc.)
 - Responding personnel must utilize their personal monitors for initial readings of LEL, H₂S, CO and O₂
 - Other chemical contaminants (Ex. SO₂, Benzene, etc.) must be measured with specific direct reading instruments
 - Strongly consider deploying mobile air monitoring for any reportable incident
 - Conduct air monitoring and consider the following life safety limits.
 - Combustible gas levels of 10% LEL or greater
 - H₂S levels of 10 ppm or greater over an 8 hour time weighted average
 - H₂S levels of 15 ppm for a 15 minute exposure time limit

- SO₂ levels of 2 ppm or greater over an 8 hour time weighted average
- SO₂ levels of 5 ppm for a 15 minute exposure time limit
- Benzene levels of 0.5 ppm or greater over an 8 hour time weighted average
- Benzene levels of 2.5 ppm for a 15 minute exposure time limit
- O₂ content of less than 19.5% or greater than 23.5%

Note: The above life safety limits are worker exposure limits and not to be used for public protection considerations.

- Assess the current, anticipated, and potential impacts
 - Workers impacted and in the area
 - Worker injuries and/or fatalities
 - Nearby communities and members of the public (Ex. urban centres, indigenous communities, business, infrastructure, private property, etc.)
 - Environment and surrounding area (Ex. hydrology, forests, soil, wildlife, etc.)
 - Other assets (Ex. pipeline systems, facilities storage bullets, etc.)
 - Business continuity (Ex. transportation, 3rd parties, storage, supply of product, etc.)

Note: Refer to the 'Job Hazard Assessment Program' for additional guidance.

All incident details will be collected and organized by the Incident Commander. The collected information will be captured in the *ICS 201* and utilized to:

1. Outline the appropriate strategies and tactics to achieve the incident priorities and initial objectives (life safety, incident stabilization and minimize impacts).
2. Determine the level of emergency.
3. Determine if the ERP will be activated.
4. Identify additional resources and response personnel.

1.3.6 Activate Emergency Response Protocols

The ERP will be activated for any level of emergency (1, 2, or 3) and the response will vary based on the complexity of the incident, as outlined in Step 3 (*1.3.5 Incident Details*) of the Incident Response Checklist.

Once it is determined that the ERP will be activated, PMC utilizes the 'Get Big Quick' approach to emergency response. The following actions need to be considered:

- Identify and order resources required (Ordering needs to go through the Logistics Section as soon as it is established)
 - How many responders are required?
 - Are any technical specialists required?
 - What support service companies to need to be contacted?
 - Consider company locations for response times.
 - Ensure a staging area has been identified before deploying equipment.
- 'Get Big Quick' and mobilize personnel, engage support services, order required equipment
- Identify and activate required incident facilities (Ex. ICP, staging area, reception centre, etc.)
- Setup the ICP and/or EOC
 - When activating the EOC specific processes must be followed (*1.3.6.2 EOC Activation and Setup*).
- Establish communications between incident locations, facilities, and responders

- Create and activate an incident specific VEOC/VICP site
 - Create and/or document initial incident documentation (I.e. ICS 201, incident pictures, etc.)
 - Record initial incident details
 - Incident name, level of emergency, and initial situation report
 - Create an incident specific Respond (emergency response mapping system) session
- Identify the applicable ERP and site specific information
- Track response resources (personnel, equipment and services) at each incident facility using *ICS 211p's* and *ICS 211e's*
- Develop a Safety Plan
 - Including applicable Standard Operating Procedures (SOPs), Field Level Hazard Assessments (FLHAs), etc.
- Update applicable ICS documentation (I.e. ICS 201, ICS 207-IMT, ICS 234)
- Prepare to conduct an Incident Briefing
 - Separate incident briefings must be conducted for IMT responders and CCMT responders.
- Provide a copy of the *ICS 201* to the Incident Director

Note: Some of the above actions may have already been accomplished.

1.3.6.1 ICP Activation and Setup

The Incident Command Post (ICP) must be strategically identified and outside of the EPZ. Consider the pre-identified ICP locations (*Refer to Section 9: Area Specific Information*) before identifying an alternate location. When establishing an ICP the following considerations must be made:

- Large enough to host all potential responders
- Communications and connections readily available (E.g. Internet, power outlets, phone lines, etc.)
- In close proximity to the incident but outside of the hazard area and EPZ, if possible
- Easily accessed by responders and agencies
- Security is able to control access

Refer to *1.3.6.3 ICP Layout* and utilize the following checklist when setting up the ICP:

- Configure the room and organize tables
- Establish a separate breakout room, if available, as the Unified Command / General Staff Meeting Room
- Post wall maps, charts, situation board and Emergency Response Forms Box
 - Publish incident and response details
- Setup network/internet connection
 - Create a PMC Wi-Fi spot, if required
- Access ICS vests, table cones and additional signage
- Prepare (and/or print) the appropriate forms for responders
- Prepare workstations with ICS 214a's and stationary
- Establish a check-in procedure and utilize an ICS 211p to track all personnel
- Lockdown the location and establish security protocol for the ICP and all facilities

1.3.6.2 EOC Activation and Setup

The Emergency Operations Centre (EOC) is pre-established at the Calgary PMC Plaza and will always be available 24/7 in the event of an emergency. Use the following steps to activate the EOC and Corporate Crisis Management Team (CCMT) personnel:

1. Contact PMC Emergency Management to provide support for the duration of the response
2. Send an email to *Dist-Grp-Emergency-Calgary EOC* to advise CCMT responders to be on stand-by and provide a brief incident summary.
 - After hours, have personnel identify if they are available to respond.
3. Determine required CCMT Roles. Engage and assign available personnel.
4. CCMT Managers to identify required support roles and advise personnel to be on stand-by
 - Establish Scribe and Documentation Unit roles
 - Contact Communications Unit (Information Services) to support all technology in the EOC and Overflow EOC, if required
5. Coordinate and facilitate an EOC Incident Briefing.
 - In person at the EOC or virtually in the VEOC.

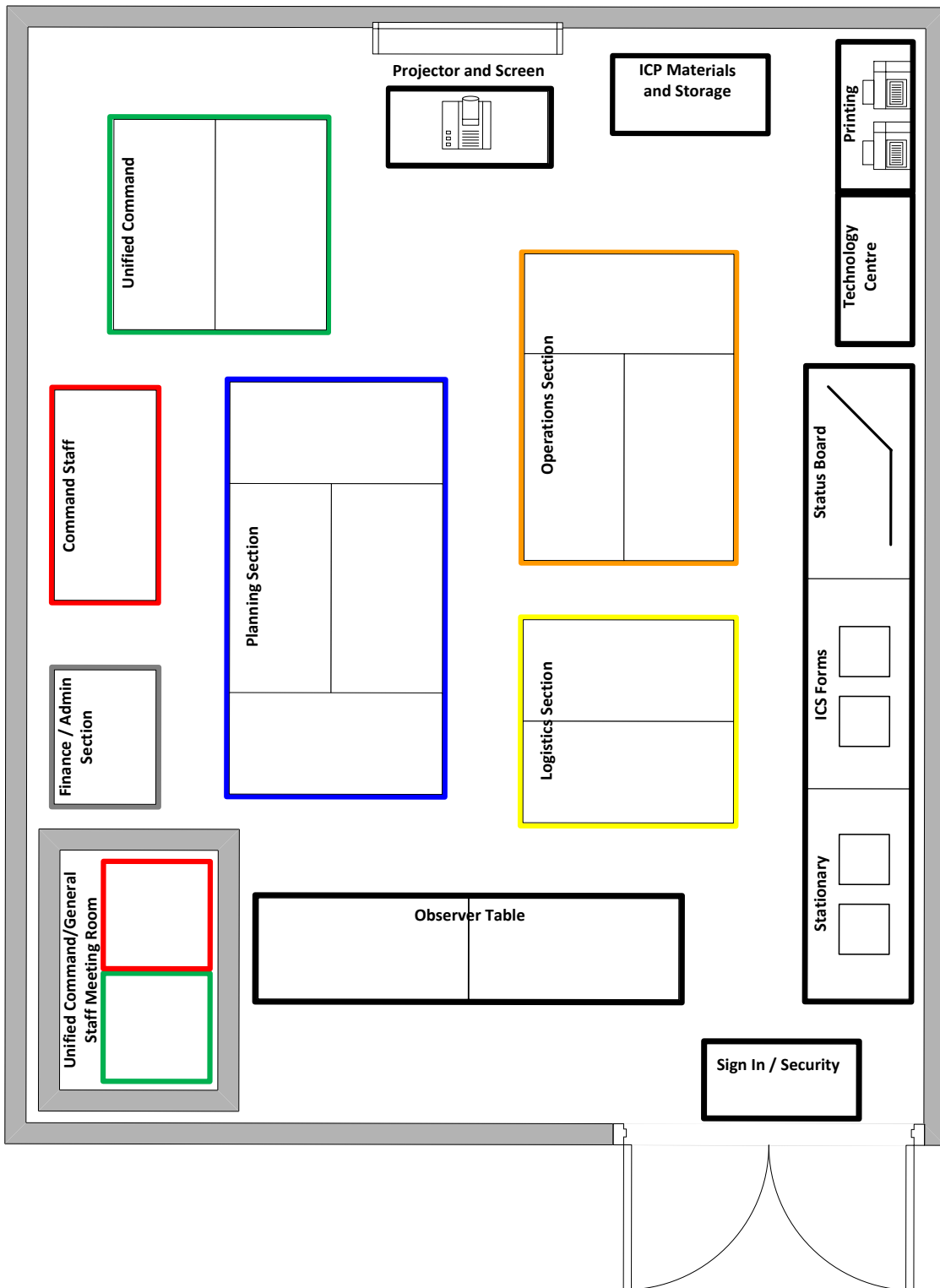
Refer to *CCMT Organizational Chart/Call Down List* for pre-identified CCMT personnel and the *EOC/CCMT Holiday Coverage Schedule* available on EM SharePoint site, if applicable.

Utilize the following checklist when setting up the EOC:

- Post wall maps, charts and situation board
 - Publish incident and response details
- Prepare (and/or print) the appropriate forms for responders
- Prepare workstations with *ICS 214a's* and stationary
- Setup and test EOC technology (E.g. main computer, projector, laptops, Wi-Fi connection, etc.)
- Establish a check-in procedure and utilize an *ICS 211p* to track all personnel
- Establish security protocol for all Corporate CCMT responders

For additional guidance, refer to PMC Emergency Management and the *EOC Activation Checklist* and *EOC Incident Briefing Agenda* available in the EOC.

1.3.6.3 Incident Command Post (ICP) Layout



NOTE: This layout is an example only. ICPs will be set up according to specific IMT needs and available resources.

1.3.7 Incident Briefing and Next Steps

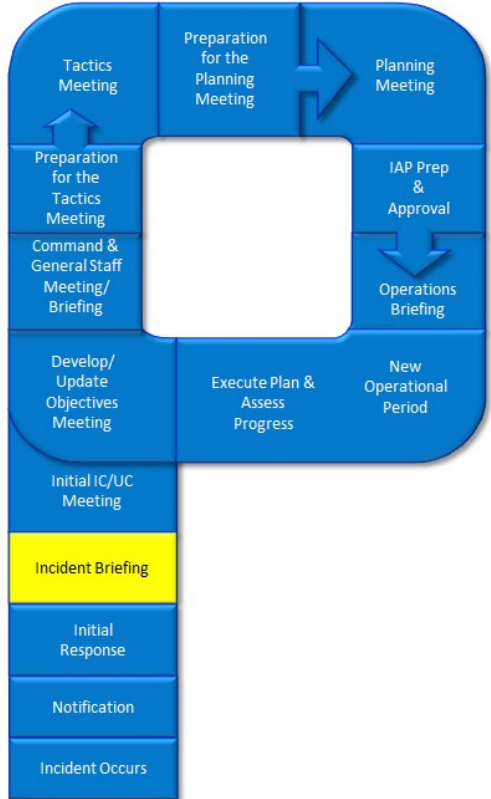
All responders (not exclusive to PMC personnel) must receive an incident and safety briefing. This is accomplished by reviewing the active *ICS 201* and any safety plans including JHA's during the Incident Briefing. During the briefing, responding personnel will receive their roles and responsibilities which include: current actions, task/expectations, reporting requirements and communications. Common responsibilities that will be assigned to personnel are outlined in *1.3.6.2 Response Actions – Next Steps*.

NOTE: Responders that are not present at the Incident Briefing must be briefed independently.

The Incident Briefing also provides the Incident Commander, and Incident Director in the EOC, the opportunity to:

- Identify safety issues and concerns
- Outline initial response actions
- Assign resources to specific strategies/tactics
- Review assigned roles and responsibilities
- Dispatch field personnel

1.3.7.1 Incident Briefing

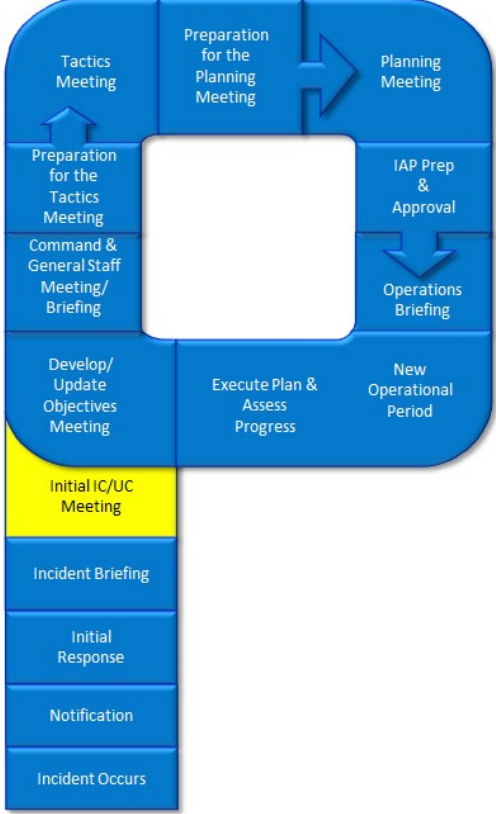
Who is Involved	
The responsible party Incident Commander (or PSC if available) facilitates the meeting, with Command and General Staff attending, as available.	
Tasks	
The Incident Briefing using the <i>ICS 201</i> enables a Transfer of Command, if required, and updates the Unified Command, Command and General staff and incoming responders to current objectives and priorities as well as the current situation. Decisions should be captured on the <i>ICS 201</i> .	
Agenda	
With the aid of <i>ICS 201</i> , the incident Briefing agenda should include: <ul style="list-style-type: none"> • Initial objectives and priorities • Current situation (confirmed and contingent) • Current and planned actions • Communications • Current on-scene organization • Resource assignments • Resources en-route and/or ordered • Facilities established • Incident potential 	

1.3.7.2 Response Actions – Next Steps

Additional response actions need to be considered to mitigate all hazards, that are generated from the objectives and strategies outlined within the Incident Briefing. Ensure that the following actions have been addressed, if not already completed.

- Isolate the hazard area and EPZ
 - Establish roadblock locations, search areas and dispatch rovers
 - Identify/dispatch air monitors
- Establish SMART objectives, strategies, and tactics on the *ICS 234*
- Assign roles and responsibilities to accomplish identified strategies and tactics and record all responders on the *ICS 207-IMT*.
- Determine the appropriate public protection measures to ensure public safety (shelter in place, evacuation, ignition, etc.)
- Enact public protection roles and actions (E.g. Roadblocks, Rovers, Notification Group, Air Monitoring, Reception Centre, etc.)
- Contact and advise all impacted residences, businesses and surface developments within the EPZ
 - If the EPZ impacts a city/town boundary or Aboriginal community contact the applicable representative (Ex. Director of Emergency Management) to coordinate public protection measures.
- Notify all other impacted members of the public
 - Industrial operators, trappers, guides and outfitters, grazing leases, public recreation areas, farm use areas, etc.
- Liaison Manager and/or Liaison Officer must address the following:
 - Provide an update to all previously contacted regulators, local authorities, indigenous communities, government agencies, supporting agencies, mutual aid organizations, and other local companies
 - Refer to *Section 8: Government Agencies and Local Authorities*
- Identify any other actions to achieve the incident priorities (life safety, incident stabilization and minimize impacts)
 - A Notification to Airmen (NOTAM), also known as a 'no fly zone', may be issued by the lead regulatory body for Level 2 and 3 emergencies
- Identify and record additional incident objectives and strategies on the *ICS 201*
- Populate the *Situation Status Display Board* with current information.

1.4 Initial Incident Command / Unified Command Meeting

<p>Who is Involved</p>	
<p>When a new Incident Commander is incoming or if additional lead agencies are going to form Unified Command (UC), then an Initial IC/UC Meeting must occur. This meeting is conducted by the Responsible Party Incident Commander or the Planning Section Chief.</p>	
<p>Tasks</p>	
<p>New Unified Command and General staff will review current objectives and priorities within the current situational scope of the incident and the newly created command structure and agree or revise them. The participants must identify jurisdictional boundaries and focus, and establish and agree on response priorities.</p>	
<p>Agenda</p>	
<ul style="list-style-type: none"> • Review the completed <i>ICS 201</i> <ul style="list-style-type: none"> ○ Incident details ○ Current response actions, objectives and strategies ○ Resources engaged and current statuses • Outline PMC organizational chart (IMT and CCMT) • Identify incident facilities • Confirm the expectations from each UC agency – including roles and responsibilities • Outline areas of responsibility and jurisdiction 	

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SECTION 2: Roles and Responsibilities

2.1 Introduction

The PMC emergency response framework is comprised of response organizations that work in conjunction with one another and are in regular communication.

There are three key teams responsible for either directing or supporting emergency response efforts.

For additional information on PMC response framework and organizations, refer to the PMC IMH.

For additional copies, request through [REDACTED]

Incident Management Team (IMT) is responsible for managing the emergency response and all field level (tactical) emergency response actions. The roles and responsibilities for IMT is located within the PMC IMH.

Corporate Strike Team (CST) The CST is responsible for performing roles as required in the IMT and for communicating and coordinating activities through the Responsible Party Incident Commander (RPIC).

Corporate Crisis Management Team (CCMT) is responsible for supporting the IMT, by managing long term impacts and business continuity.

2.1.1 Transfer of Personnel

As detailed in *0.4.7 Incident Command System*, there are 4 key steps to consider when transferring personnel in any key response role:

1. The outgoing responder should conduct an assessment with the incoming responder.
2. The Incoming responder must be adequately briefed (refer to *ICS 201 Form*)
3. After the incident briefing, the incoming responder should determine an appropriate time for transfer of responsibilities (under direction from the Incident Commander)
4. At the appropriate time, notice of a change should be made to all applicable responders.

2.1.2 Demobilization / Post-Incident Procedures

There are five major activities involved with demobilization. These are primarily coordinated by the Incident Commander and IMT. The CCMT will be responsible for any corporate, government, and media, as well as the overall evaluation of the emergency response.

Demobilization activities include:

1. Emergency stand down notifications
2. Assist the public
3. Site cleanup and/or repairs
4. Debriefs, Investigation and reports
5. Incident records management

Emergency Stand Down Notification

- The Incident Commander, in consultation with the Incident Director, the lead regulatory agencies, the appropriate Local and Provincial Disaster Service Authorities, and Health Authority, will be responsible for the downgrading of a Level 2 or 3 emergency and/or ordering a “Return to Normal” status.
- All IMT and CCMT members, including contract personnel and emergency services must be notified.
- All previous contacts including public, government and industrial operators must also be notified.
- Ensure a media statement is prepared and engaged media are contacted, as applicable.
- Debriefings with other engaged and/or supporting personnel (Ex. insurance, legal, human resources, etc.) should be conducted.
- Document all “Return to Normal” activities.

Assist the Public

- Prior to the “Return to Normal” signal, ensure that all evacuated areas are safe to re-enter.
- Ensure evacuees are promptly notified and assistance in returning to their homes is provided.
- Maintain security until all residents have returned to their homes.
- Ensure resident expense/damage claims are promptly collected and processed.
- Arrange to communicate with the resident further to answer questions and address concerns.
- Document assistance activities.

Site Cleanup and/or Repairs

- If serious injury or death has occurred, the scene must be left undisturbed.
- Secure the incident site for any ongoing investigation.
- Once the investigation has been completed and authorization by RCMP (or applicable authority) has been given to re-enter the area, begin clean-up activities.
- If an investigation is NOT imminent, prioritize cleanup activities and restore the site to normal operating condition utilizing all available staff and resources.
- Conduct any safety or environmental inspections.
- Document all cleanup activities.

Debriefing, Investigation and Reports

- Analyze and review all documentation and physical evidence to establish probable cause of incident. Depending on the complexity of the incident, an investigation team
- Review effectiveness of response procedures including, safety standards utilized, media and public relations actions and environmental control measures. Identify the strengths and areas that require improvement.
- Evaluate effectiveness of internal and external communications systems and notification call-down efforts.
- Identify the legal and environmental consequences resulting from the incident or response.
- Estimate current and future expenses.
- As applicable, prepare a corporate report recommending incident prevention measures, improvements to emergency response procedures and required company policy changes.
- Ensure all employees, contractors, and members of government and community agencies are recognized for their efforts.

Incident Records Management

- Collect all documentation from all field, contract services and responders.
- Photograph, video as much information as possible.
- Ensure all statements, time and event logs, forms etc. are indexed and stored for five years (or applicable retention period).

Incident Management Team (IMT)

2.2 IMT Organization

The PMC emergency response framework is comprised of response organizations that work in conjunction with one another and are in regular communication. The Incident Management Team (IMT) is based in the field at the Incident Command Post (ICP).

- Responsible for managing the emergency response and all field level (tactical) emergency response actions.
- Managed by the Incident Commander and at least initially comprised of local and nearby area personnel. Other company personnel who are trained to respond may take IMT roles as well as external agencies/company personnel as required.
- Deputy Incident Commander must be established communicates and report to the Incident Director (CCMT) at the EOC.

The IMT is built as best fits the demands of the incident. It is the responsibility of the Command and General Staff to build an IMT that is needed to effectively address the objectives and priorities established for responding to the incident. IMT leadership is comprised of:

- **Command Staff:** Incident Commander, Deputy Incident Commander, Safety Officer, Liaison Officer, Public Information Officer and Legal Officer.
- **General Staff:** Operations, Planning, Logistics and Finance/Administration Section Chiefs.

All field response roles, or tactical resources, are assigned to the **Operations Section** and the most hazardous activities are carried out there. Because of this, it is necessary to carefully monitor the functions and resources within this section to manage span of control.

The following supervisory levels can be added to help manage span of control and the Operations Section:

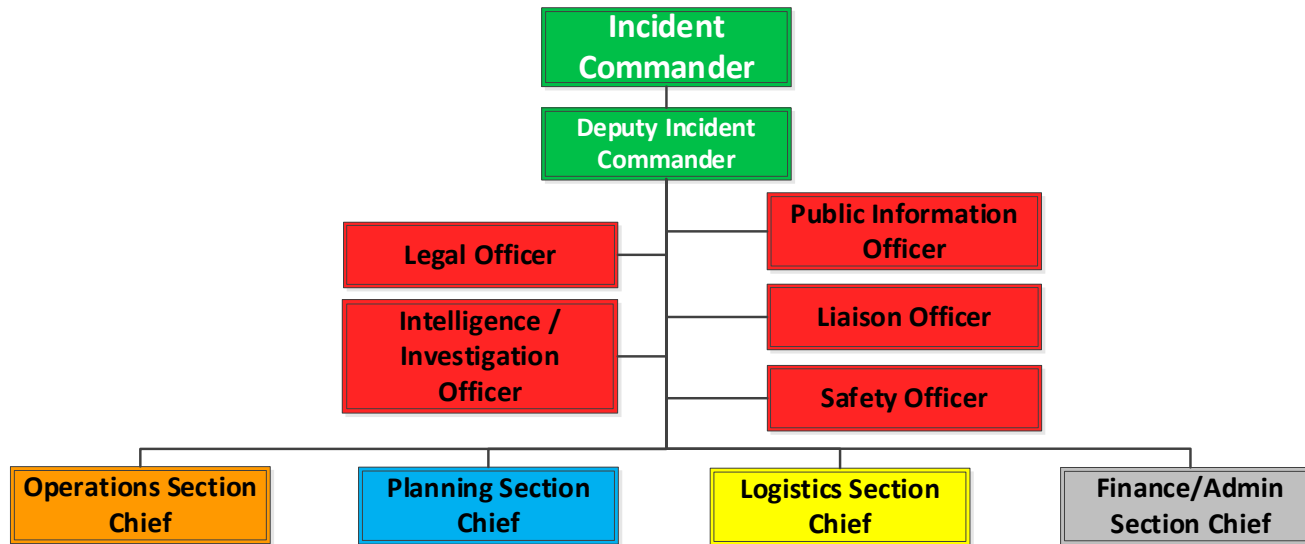
- Divisions are used to divide an incident geographically.
- Groups are used to divide functional areas of operation.
- Branches are used when the number of Divisions or Groups extends the span of control and can be either geographical or functional. Within Branches:
 - Unit – That organization element having functional responsibility for incident, logistics, or finance/administration activity.
 - Task Force – A group of unlike single resources assigned to complete certain tactical assignments.
 - Strike Team – Similar to a Task Force but comprised of the same kind and type of resources to complete tactical assignments.

Within the Operations Section, roles are titled and determined based on function. Suggestions for additional roles can be found in the Field Operator's Guide, Emergency Operations Centre and/or in the following Organizational Charts. These roles include, but are not limited to:

- Recovery and Protection, Repair, Air Operations, and Wildlife.

For more information on specific IMT roles, refer to the PMC IMH.

2.2.1 IMT Organizational Structure



*NOTE: All of the roles **do not** need to be filled. The organization should be customized for each incident, based on the complexities of the incident and the objectives established for the operational period.*

Corporate Strike Team (CST)

2.3 CST Organization

The Corporate Strike Team (CST) is comprised of enterprise-wide personnel that respond to the local incident scene and directly support the on-site Incident Management Team through the Incident Command Structure (ICS).

The CST is responsible for communicating and coordinating activities through the Responsible Party Incident Commander (RPIC).

2.3.1 CST Organizational Structure

Corporate Crisis Management Team (CCMT)

- Functional Roles
- Subject Experts

Incident Management Team (IMT)

- Command Staff
- General Staff
- Subject Matter Experts

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Corporate Crisis Management Team (CCMT)

2.4 CCMT Organization

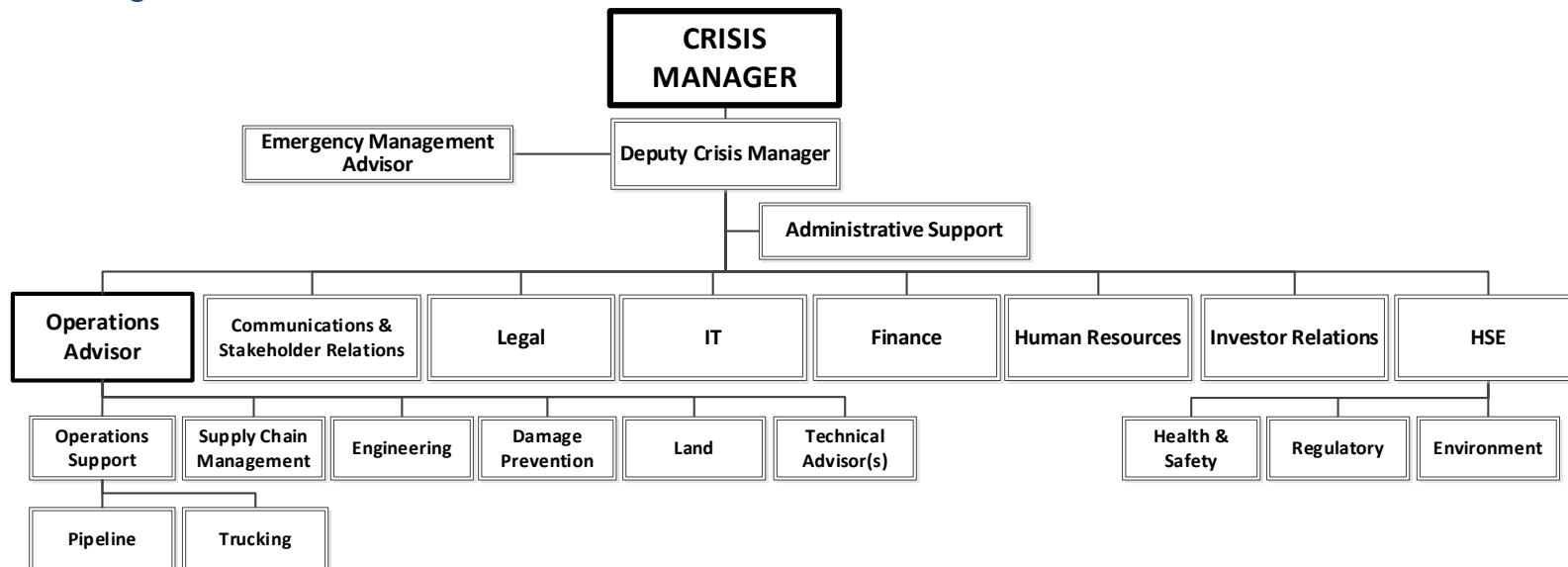
The PMC emergency response framework is comprised of response organizations that work in conjunction with one another and are in regular communication. The Corporate Crisis Management Team (CCMT) is based in Calgary and Houston Emergency Operations Centres (EOC). The CCMT is managed by the Operations Advisor and comprised of Calgary Corporate personnel. Key Responsibilities include:

- Supporting the IMT, by managing long term impacts and business continuity.
- Executive Advisor communicates and reports to the Crisis Management Team at the PMC Head Office.

CCMT leadership is comprised of:

- **CCMT Command Staff:** Crisis Management, Deputy Crisis Manager, Emergency Management Advisor and Administrative Support
- **CCMT General Staff:** Operations Advisor Communications & Stakeholder Relations, Legal, IT, Finance, Human Resources, Investor Relations and HSE.

2.4.1 CCMT Organizational Chart



NOTE: This is a sample only and an Organizational Chart will be customized for each incident.

2.5 Corporate Crisis Manager

Role Description
<p>The Corporate Crisis Manager (CCM) is the overall leader and decision maker for the CCMT, tasked with overseeing all operational and communications response actions to ensure cross- functional coordination. The CCM interacts and provides input from the CCMT to make key decisions that support the crisis response and how that response will be communicated to stakeholders. The CCM will determine the CCMT roles that need to be activated to respond to a particular crisis; not all roles will be activated for every crisis. The CCM is authorized to take urgent measures on behalf of the corporation as circumstances warrant.</p>

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Determine the Crisis Management level (i.e. Alert, Virtual CMT and Crises) and who should be alerted and/or assembled.	
<input type="checkbox"/>	Activate Corporate Emergency Operations Center (CEOC) (if required) on the 19th floor or Alternate location (Appendix B).	
<input type="checkbox"/>	Notify CCMT Advisors. Relay the nature of the crisis and all known facts (i.e. where, when, what, etc.) to all parties.	
<input type="checkbox"/>	With insight from members of the CCMT develop overall crisis response objectives and strategies.	
<input type="checkbox"/>	Review and approve all public materials and news releases. Liaise with Communications and Stakeholder Relations Advisor for counsel and insight on public affairs and communications matters.	
<input type="checkbox"/>	Call to order and chair all CCMT Meetings.	
<input type="checkbox"/>	Ensure that the CCMT is properly staffed.	
<input type="checkbox"/>	Assign critical tasks and receive updates on progress or completion.	
<input type="checkbox"/>	Work with Deputy Crisis Manager and Operations Advisor to ensure 24-hour operations capability.	
<input type="checkbox"/>	Ensure HSE - Environmental Advisor and HSE - Regulatory Advisor has identified and prepared any additional personnel that will need to interface with federal, state or local officials.	
<input type="checkbox"/>	Review the need for additional resources beyond the capabilities of the CCMT.	
<input type="checkbox"/>	Provide situation updates to the Board of Directors and key stakeholders as necessary.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Support business continuity and continuity of operations as necessary.	
<input type="checkbox"/>	Conduct post-crisis evaluation of the performance of the CCMT from both an operational and communications perspective.	
<input type="checkbox"/>	Ensure plans and procedures are updated and revised with lessons learned.	

2.6 Deputy Crisis Manager

Role Description
The Deputy Crisis Manager assists the Corporate Crisis Manager (CCM) in leadership of the CCMT. The Deputy Crisis Manager is responsible for coordinating and executing the decisions of the CCM and the actions of the other CCMT members.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	With the Corporate Crisis Manager (CCM), determine which CCMT members should be notified and whether they should be (a) only alerted or (b) alerted and assembled.	
<input type="checkbox"/>	Liaise with HSE Advisors to ensure the CCMT is informed of all developments.	
<input type="checkbox"/>	Call to order and chair all CCMT meetings with the Crisis Manager	
<input type="checkbox"/>	Take notes at CCMT meetings and prepare status updates.	
<input type="checkbox"/>	Note assignments to the CCMT members and check to see that deliverables are met.	
<input type="checkbox"/>	Request appropriate research of support services from the various CCMT members.	
<input type="checkbox"/>	Communicate with the HSE – Environmental Advisor and HSE - Regulatory Advisor to remain informed on all regulatory interaction and evaluate all communications with regulatory agencies.	
<input type="checkbox"/>	Review and approve all public materials and news releases for technical accuracy. Liaise with Investor Relations and Communications Group for counsel and insight on public affairs and communications matters.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	With the Corporate Crisis Manager (CCM), determine which CCMT members should be notified and whether they should be (a) only alerted or (b) alerted and assembled.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Ensure that Corporate Emergency Operations Center (CEOC) is restored to “ready” status as soon as possible following team demobilization.	
<input type="checkbox"/>	Work with employees, vendors and consultants to restore normal business operations.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

Role Description	
<p>The Corporate Crisis Manager (CCM) is the overall leader and decision maker for the CCMT, tasked with overseeing all operational and communications response actions to ensure cross- functional coordination. The CCM interacts and provides input from the CCMT to make key decisions that support the crisis response and how that response will be communicated to stakeholders. The CCM will determine the CCMT roles that need to be activated to respond to a particular crisis; not all roles will be activated for every crisis. The CCM is authorized to take urgent measures on behalf of the corporation as circumstances warrant.</p>	

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>		
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<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

2.7 Operations Advisor

Role Description
The Operations Advisor acts as the communications link between the CCMT and field on-scene personnel. The Operations advisor is also responsible for ensuring site and relief resources needs are met (housing, food, water, etc.). Additionally, the Operations Advisor provides operational advice and expertise to the CCMT.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	In coordination with the Corporate Crisis Manager (CCM) and Administrative Support, ensure that the Corporate Emergency Operations Center (CEOC) is operational.	
<input type="checkbox"/>	Establish and maintain communications with affected facility, District directors, and/or affected business units.	
<input type="checkbox"/>	Obtain status of incident situation, responding agencies and contractors, current response actions (planned or in-progress), and proposed or implemented strategies from the local response team. Immediately update CCMT with any developments.	
<input type="checkbox"/>	Respond to requests for technical or logistical support for the incident response and coordinate with CCMT and Administrative Support.	
<input type="checkbox"/>	Provide information to the CCM, Legal Advisor and Communications and Stakeholder Relations Advisor to draft media communications.	
<input type="checkbox"/>	Coordinate preparation of the Situation Log (SECTION 4.3) with Administrative Support, which provides running documentation of crisis developments, as well as, actions taken by CCMT members. Ensure the Situation Log is updated regularly and shared with the CCMT.	
<input type="checkbox"/>	Define a schedule for regular status updates with CCM and on-scene RPIC. Provide status updates to CCMT per defined schedule (SECTION 4.3 Meeting Schedule).	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident. (SECTION 4.3 Individual Log)	
<input type="checkbox"/>	Ensure the following plans are completed and communicated to the appropriate agencies and internal personnel: a) Repair Plan b) Pre-start Up Test Plan c) Start Up Plan	
<input type="checkbox"/>	Coordinate with HSE - Environmental Advisor and HSE - Regulatory Advisor to respond to agency request and reporting requirements (ex. request for volumes lost and recovered) and update accordingly.	
<input type="checkbox"/>	Refer to Business Continuity Plan's Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assume responsibility for collection and archiving of all CCMT documentation. Enlist the assistance of Administrative Support staff as necessary.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.8 Communications and Stakeholder Relations Advisor

Role Description
The Communications and Stakeholder Relations Advisor assists the Corporate Crisis Manager and Deputy Crisis Manager with media, public, unit holders, Board of Directors and employee’s communications. Utilize the Crisis Communications Manual for detailed media strategy, templates, and additional resources.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Report to Corporate Emergency Operations Center (CEOC) and work with Corporate Crisis Manager (CCM) and Deputy Crisis Manager to begin gathering pertinent data regarding the incident.	
<input type="checkbox"/>	Based upon the severity of the incident, develop a strategy for communicating the incident and for media response or refer to the Cyber Incident Response Plan (CIRP).	
<input type="checkbox"/>	Draft key messages that will be shared externally based on the information gathered.	
<input type="checkbox"/>	Once the initial messaging is developed, work with CCM, Operations Advisor, Legal Advisor, Executive team and any others to seek appropriate approvals.	
<input type="checkbox"/>	Use approved key messages to deliver appropriate communication tactics to reach affected external stakeholders.	
<input type="checkbox"/>	Determine the appropriate tactics for disseminating additional messages externally based on the severity of the incident.	
<input type="checkbox"/>	If the severity of the incident warrants, activate the Plains emergency dark website.	
<input type="checkbox"/>	Based on the severity of the incident, enlist and manage outside public relations/communications vendors for assistance.	
<input type="checkbox"/>	Work with CCM, Deputy Crisis Manager, and on-scene Communications Public Affairs Group personnel to determine the need and frequency of subsequent external messaging.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	Refer to Business Continuity Plan’s Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Complete internal review of Communications and Stakeholder Relations Advisor activities including Crisis Communications Manual.	
<input type="checkbox"/>	Assess public and media reaction to crisis and the efficacy of communications response.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.9 Emergency Management and Security Advisor

Role Description
The Emergency Management and Security Advisor acts as the advisor to the Corporate Crisis Manager (CCM) in aspects of the field emergency response and provides Emergency Management and Corporate Strike Teams (CST) to support the ongoing field response. Emergency Management is to support the Incident Command Structure (ICS) and ensure communications between the field response and the Corporate Emergency Operations Center (CEOC) is established. Additionally, the Emergency Management and Security Advisor provides communications support during media press conferences.

☑	Response Actions	Comments
☐	In coordination with the Corporate Crisis Manager (CCM) and Administrative Support, ensure that the CEOC is operational and institute security measures by coordinating with the building security/management as necessary.	
☐	Activate the Emergency Response and Security Management team and CST as required.	
☐	Obtain status of incident situation, responding agencies and contractors, current response actions (planned or in-progress), and proposed or implemented strategies from the local response team in order to facilitate CST transition to ICS positions. Immediately update CCMT with any developments.	
☐	Ensure communications between field response software (PrepareRespondTM) and the CCMT.	
☐	Respond to requests for technical or logistical support for the incident response and coordinate with CCMT and Administrative Support.	
☐	Provide information to the CCM, Legal Advisor, and Communications and Stakeholder Relations Advisor to draft media communications.	
☐	Maintain appropriate documentation of actions and decisions throughout the incident. (SECTION 4.3 Individual Log)	
☐	Ensure only CCMT Members and other authorized personnel are admitted in the CEOC during an event.	
☐	Heightened building security procedures may be established, especially if the incident involves security concerns, acts of terrorism or significant media interest. Building security should be instructed to report all suspicious activity directly to the CCMT Security Advisor.	
☐	Provide security escorts for CCMT Members within the facility, if deemed necessary by the CCMT Security Advisor.	
☐	Monitor any suspicious activities in or around Crisis Management Center facilities and report to appropriate company personnel or to the proper authorities.	
☐	Assign additional personnel to provide security at the Media Center and CEOC during press conference.	
☐	Badge Systems – if necessary the CCMT – Security Advisor may consider implementing an entry badge process, using existing employee badges or other forms of identification, to positively identify all personnel who enter the CEOC. This will typically require the presence of one or more security guards in the CEOC to manage this process.	
☐	Liaise with local law enforcement if applicable.	

2.10 Legal Advisor

Role Description
<p>The Legal Advisor will evaluate all incoming information and advise the Corporate Crisis Management Team (CCMT) with respect to legal implications of the emergency. The Legal Advisor is responsible for legal review of all communications materials. In addition, the Legal Advisor will work closely with those responsible for monitoring the activities of and interactions with any regulators, elected officials or law enforcement personnel, whether they are local, state or federal. This person must be readily available in all crisis situations and have the ability to evaluate the legal ramifications of any decisions made by the CCMT.</p>

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Evaluate legal implications of emergency and advise Corporate Crisis Manager (CCM) of steps necessary to ensure that the company fully complies with applicable laws, rules, and regulations while appropriately mitigating potential legal issues and company exposure/risk.	
<input type="checkbox"/>	Review and approve all public materials and news releases. Liaise with Communications and Stakeholder Relations Advisor for counsel and insight on public affairs and communications matters.	
<input type="checkbox"/>	Work with insurance group to ensure that notifications to carriers are made and that appropriate steps are taken to facilitate timely submission of claims to insurers.	
<input type="checkbox"/>	Review appropriate documentation to determine whether claims can be made against other parties to recover costs.	
<input type="checkbox"/>	Determine if any SEC or NYSE filings are required, and if required, prepare and make such filings. Also determine whether any ongoing capital market activity should be suspended and/or deferred.	
<input type="checkbox"/>	Determine whether any contract counterparty notices or other communications are required (i.e., triggered by the incident) or desirable.	
<input type="checkbox"/>	Ensure that proper "litigation hold" notices are sent to all involved personnel providing them with appropriate instructions regarding the	
<input type="checkbox"/>	Establish appropriate process to receive/administer claims against the company arising from the incident.	
<input type="checkbox"/>	<p>Review documentation and incident records. Establish necessary protocols to maintain attorney-client privilege.</p> <p>a) Work with HSE – Environmental and HSE - Regulatory Advisors to ensure that any NRC or other required notifications have been made on a timely basis</p> <p>b) ensure that the company complies with all environmental, safety and other rules and regulations applicable to the incident and</p> <p>c) coordinate communications with appropriate elected/appointed officials, industry groups, commissions and agencies.</p>	
	Engage, and share documents with, external counsel, as needed.	

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Gather and preserve appropriate documentation of actions taken and decisions made during the period of time leading up to and including the incident.	
<input type="checkbox"/>	Document the event and any responsive actions taken as needed for liability and risk management purposes.	
<input type="checkbox"/>	Work with CEO and others as necessary to facilitate any required or necessary communications with the Board of Directors or any of its committees.	
<input type="checkbox"/>	For Cyber Incidents – Make all necessary notifications and follow applicable procedures set forth in the Cyber Incident Response Plan.	
<input type="checkbox"/>	Refer to Business Continuity Plan’s Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assist with post-crisis evaluation of performance of the CCMT.	
<input type="checkbox"/>	Support efforts to restore normal business.	

2.11 HSE – Health and Safety Advisor

Role Description
The HSE – Health and Safety Advisor will provide safety and security support for the field response, the Corporate Emergency Operations Center (CEOC) and Corporate Crisis Management Team (CCMT).

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Set up and manage safety and security needs for the CEOC.	
<input type="checkbox"/>	Advise the CCMT regarding safety and security liability and compliance issues.	
<input type="checkbox"/>	Determine which safety and security resources are needed to support the event.	
<input type="checkbox"/>	Identify the need for and coordinate any corporate or outside safety and security assistance.	
<input type="checkbox"/>	Advise the CCMT regarding safety and security equipment operations.	
<input type="checkbox"/>	Counsel the CCMT regarding site locations and any safety and security hazards.	
<input type="checkbox"/>	Support the on-scene Safety Officer as required.	
<input type="checkbox"/>	Provide regular updates to the CCMT of all safety and security developments and activities to ensure all parties are up to speed.	
<input type="checkbox"/>	Review communications materials from the Communications and Stakeholder Relations Advisor to ensure accuracy with regards to safety and security matters.	
<input type="checkbox"/>	Coordinate and if appropriate obtain and manage pictorial documentation of crisis (print, video) recognizing that documentation may be subject to discovery.	
<input type="checkbox"/>	Develop and implement the Incident Investigation Plan.	
<input type="checkbox"/>	Obtain status of on-scene humanitarian/medical support and advise Corporate Crisis Manager.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	Refer to Business Continuity Plan’s Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assist with post-crisis evaluation of performance of the CCMT.	

2.12 HSE - Environmental and Regulatory Advisor

Role Description
The HSE - Environmental and Regulatory Advisor assists the Corporate Crisis Management Team (CCMT) with communications between local, state and federal regulators and serves as chief liaison between Plains' and affected government-related groups. The HSE – Environmental and Regulatory Advisor will advise and support response activities addressing environmental issues.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Assess how the crisis affects government and government-related groups and ensure that appropriate outside organizations are involved in communicating the crisis as necessary.	
<input type="checkbox"/>	Coordinate interaction with federal and state environmental and DOT regulatory agencies.	
<input type="checkbox"/>	Ensure that all crisis response operations are compliant with environmental and DOT regulatory requests.	
<input type="checkbox"/>	Ensure that all messaging in any government or regulatory communications is consistent with the overall communications strategy.	
<input type="checkbox"/>	Maintain lists of all key government and regulatory contacts that include the name, agency affiliation, return telephone numbers, email address and a brief description of previous interactions.	
<input type="checkbox"/>	Schedule any briefings between government or regulatory agencies and the CCMT or senior management and provide feedback to CCMT on trends and message efficacy.	
<input type="checkbox"/>	Coordinate all activities with Legal Advisor as necessary.	
<input type="checkbox"/>	Inform the Communications and Stakeholder Relations Advisor, Regulatory Advisor and Legal Advisor about status of cleanup operations and environmental impacts.	
<input type="checkbox"/>	Provide guidance and support to the onsite Environmental Unit Leader regarding any environmental issues such as wildlife recovery, remediation, waste disposal, and environmental resources at risk.	
<input type="checkbox"/>	Ensure that emergency sampling and environmental survey procedures are being properly implemented, and that the resultant information is available to the appropriate regulators and emergency response personnel.	
	Assess the impact of various response techniques on the environment.	
	Maintain appropriate documentation of actions and decisions throughout the incident	
	Refer to Business Continuity Plan's Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assess government and regulatory reaction to crisis and the efficacy of communications response with these audiences.	
	Assist in post-crisis evaluation.	

2.13 Information Services Advisor

Role Description
The Information Services Advisor is responsible for providing the technical resource needs of the Corporate Emergency Operations Center (CEOC) and on-scene response.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Assess the technology needs of the CEOC. Ensure that all phone and computer resources are set-up accordingly.	
<input type="checkbox"/>	Assess needs for electronic documentation control and data requirements.	
<input type="checkbox"/>	Assist the Communications and Stakeholder Relations Advisor lead in the development of the response website and related items (creation of email addresses, distribution lists, etc.)	
<input type="checkbox"/>	Work with the On-Scene Response Personnel to ensure that IT needs are met.	
<input type="checkbox"/>	Provide IT support services throughout the duration of the incident.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	Refer to Business Continuity Plan’s Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assess the crisis response from an IT perspective. Identify areas where the CCMT could improve in terms of preparedness or response.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.14 Finance Advisor

Role Description
The Finance Advisor is responsible for ensuring capital resources are available to the Corporate Crisis Management Team (CCMT) and the site level response teams. The Finance Advisor keeps the Corporate Crisis Manager (CCM) informed of the expected and projected costs of the crisis.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Coordinate capital resources to support the crisis management response.	
<input type="checkbox"/>	Communicate to the CCMT current and projected financial commitments.	
<input type="checkbox"/>	Define financial cost tracking needs with CCM.	
<input type="checkbox"/>	Receive continuous updates from the on-scene financial group.	
<input type="checkbox"/>	Ensure claims reporting system is functioning and update the CCMT with all claims activity.	
<input type="checkbox"/>	Provide procurement resources to expedite field resource needs.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident.	
<input type="checkbox"/>	Refer to Business Continuity Plan's Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assess the financial impact of the crisis response.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.15 Investor Relations Advisor

Role Description
The Investor Relations Advisor assists the Corporate Crisis Management Team (CCMT) and Investor Relations and Communications Group with all investor and analyst communications and serves as chief liaison between Plains and the investment community.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Assess how unit holders, the financial community and industry analysts will perceive the crisis.	
<input type="checkbox"/>	Coordinate with the Communications and Stakeholder Relations Advisor to ensure that needed investor messaging is included in the Communications team talking points that are approved through mgmt.	
<input type="checkbox"/>	Maintain a call log to document all incoming inquiries from the financial community (investors, analysts, etc.) related to the incident. Call log to include name, affiliation, contact info, and a "Comment" section to briefly summarize interactions on the issue.	
<input type="checkbox"/>	Schedule any necessary briefings between investors or analysts and senior management.	
<input type="checkbox"/>	Provide feedback to CCMT on any FAQs, topics of focus in the investor community as it pertains to the incident, the ongoing crisis response or communications strategy.	
<input type="checkbox"/>	Coordinate investor disclosure with Legal group as necessary to maintain compliance with Reg FD.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions specific to the incident	
<input type="checkbox"/>	Refer to Business Continuity Plan's Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assess investor and analyst reaction to crisis and the efficacy of the communications response with these audiences.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.16 Supply Chain Advisor

Role Description
<p>The Supply Chain Advisor will evaluate all incoming information and advise the Corporate Crisis Management Team (CCMT) with respect to resources committed to the field response and ensure that any contractual or master service agreement documentation is in place. Additionally, assist the field response team in the acquisition of additional resources necessary to efficiently and effectively mitigate the incident.</p>

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Support the field response Logistics Section Chief with the acquisition of resources necessary to manage the incident.	
<input type="checkbox"/>	Review and approve service contracts and master service agreements for responding contractor service providers working on the incident scene.	

2.17 Administrative Support

Role Description
The Administrative Support staff works in close synchronization with the Corporate Crisis Manager (CCM) and the Operations Advisor to assist in the overall crisis response execution.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Initiate the Check-in / Out Log.	
<input type="checkbox"/>	Document current actions on the Situation Log.	
<input type="checkbox"/>	Manage routine requests and provide documentation to CCMT.	
<input type="checkbox"/>	Assist Operations Advisor with ensuring that the Corporate Emergency Operations Center (CEOC) has all necessary supplies.	
<input type="checkbox"/>	Tracking assigned tasks to CCMT on Open Action Tracker form.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Evaluate administrative function performance as a member of the CCMT.	
<input type="checkbox"/>	Provide support to CCMT members to help restore normal business as required.	
<input type="checkbox"/>	Process CCMT documentation as directed by Corporate Crisis Manager (CCM). Provide copies of documentation to CCMT members as requested.	

2.18 Engineering Advisor

Role Description
Coordinates and provides documentation to the Corporate Crisis Management Team (CCMT) and on-scene response regarding equipment integrity, asset integrity testing, analyzing data sets, spill calculations, development of repair, pre-startup testing, and startup plans.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Work with HSE- Environmental and HSE - Regulatory Advisors to complete regulatory documentation.	
<input type="checkbox"/>	Review In-Line-Inspection (ILI)/Hydrotest data and document technology changes from one data set to another, as requested.	
<input type="checkbox"/>	Liaise with Legal Advisor regarding documentation provided to regulatory agencies.	
<input type="checkbox"/>	Liaise with on-scene Operations and the CCMT Operations Advisor in the development of the repair plan.	
<input type="checkbox"/>	Liaise with on-scene Operations and the CCMT Operations Advisor with development of the pressure test plan.	
<input type="checkbox"/>	Liaise with on-scene Operations and the CCMT Operations Advisor with development of the restart plan	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	Liaise with Communications and Stakeholder Relations Advisor to provide statistical data to assist with completion of media communications.	
<input type="checkbox"/>	Work with the Control Center to review historical data to recreate incident as requested.	
<input type="checkbox"/>	Assist the Engineering – Technical Services group to collect and analyze data to determine product volume lost.	
<input type="checkbox"/>	Support development of pre-startup testing and startup plans.	
<input type="checkbox"/>	Coordinate the selection of a third party failure analysis firm, if necessary.	
<input type="checkbox"/>	Oversee and coordinate third party failure analysis field work, if necessary.	
<input type="checkbox"/>	Liaise with third party investigator, PHMSA and Environmental.	
<input type="checkbox"/>	Refer to Business Continuity Plan’s Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Review operational processes for areas of improvement.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.19 Human Resources Advisor

Role Description
<p>The Human Resources Advisor will be responsible for monitoring needs of employees affected by the incident and closely connected audiences, such as employee families. Human Resources Advisor should be involved in the development and review of communications intended for employees during the incident. The Human Resources Advisor should be fully knowledgeable of all means of internal communication within Plains.</p>

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Liaise with Communications and Stakeholder Relations Advisor to determine the most effective means to communicate information to employees.	
<input type="checkbox"/>	Liaise with HSE Advisors to follow-up with information regarding the disposition of injured employees and contractors.	
<input type="checkbox"/>	Appoint support team members to monitor internal sources for rumors that require an immediate response and report to the Corporate Crisis Management Team (CCMT).	
<input type="checkbox"/>	Assist with monitoring employee questions and developing appropriate responses.	
<input type="checkbox"/>	Determine employee support requirements for Plains personnel and non-company on-site personnel affected	
<input type="checkbox"/>	Evaluate the need and provide appropriate counseling services to assist affected employees.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	In case of cyber incident, refer to the HR Cyber Incident Response Plan (CIRP).	
<input type="checkbox"/>	Refer to Business Continuity Plan's Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Assist in post-crisis evaluation as it pertains to the services provided to impacted employees.	

2.20 GIS Support

Role Description
GIS Support Advisor is responsible for providing mapping and geographical information system resources to the Corporate Crisis Management Team (CCMT) and the on-scene response.

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Produce incident response maps to provide a picture of the area to be displayed in the Corporate Emergency Operations Center (CEOC).	
<input type="checkbox"/>	Update data sets with current regulatory agency information.	
<input type="checkbox"/>	Liaise with Communications and Stakeholder Relations Advisor to provide mapping services for media communications.	
<input type="checkbox"/>	Liaise with On-Scene Response Personnel to provide mapping, predefined tactics and strategies.	
<input type="checkbox"/>	Liaise with Engineering – Asset Integrity to provide risk ranking and In Line Inspection (ILI) dataset information.	
<input type="checkbox"/>	Liaise with field response personnel and contractors to acquire data to update current situation map.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input type="checkbox"/>	Coordinate mobile data collection.	
<input type="checkbox"/>	Refer to Business Continuity Plan’s Temporary Operating Procedures for further guidance.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Review and update internal datasets.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	
<input type="checkbox"/>	Provide post incident data documentation and delivery as requested.	

2.21 Gathering / Marketing (Trucking) Advisor

Role Description
The Gathering / Marketing Trucking Advisor

<input checked="" type="checkbox"/>	Response Actions	Comments
<input type="checkbox"/>	Evaluate implications of emergency and advise CCM on steps necessary to mitigate business impact.	
<input type="checkbox"/>	Determine potential impact to our customers.	
<input type="checkbox"/>	Establish and maintain appropriate level of communication to customer and employees.	
<input type="checkbox"/>	Respond to request for operational or trucking support for incident response and coordinate with CCM.	
<input type="checkbox"/>	Evaluate contractor support as needed and coordinate with Tier contractors.	
<input type="checkbox"/>	Continually provide updates to CCMT.	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Review operational processes for areas of improvement.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

2.22 Cyber Security Advisor

Role Description
Cyber Security Advisor will provide appropriate support, monitoring and investigation based on business or SCADA systems affected by or associated with an incident.

<input checked="" type="checkbox"/>	Cyber Incident Response Actions	Comments
<input type="checkbox"/>	Report initial incident findings to Legal Advisor, Corporate Crisis Manager (CCM) and Executive team.	
<input type="checkbox"/>	Activate support staff and/or subject matter experts (SME's) as necessary or as directed by CCM.	
<input type="checkbox"/>	If the severity of the incident warrants, contact Information Services Advisor activate forensic environment.	
<input type="checkbox"/>	Gather and preserve appropriate documentation of actions taken and decisions made during the period of time leading up to and including the incident.	
<input type="checkbox"/>	Work with CCM and Deputy Crisis Manager to provide regularly scheduled updates regarding the incident.	
<input type="checkbox"/>	If the severity of incident warrants, Liaise with Operations Advisor to ensure site and relief resources are met (housing, food, water, etc.).	
<input type="checkbox"/>	Maintain appropriate documentation of actions and decisions throughout the incident.	
<input checked="" type="checkbox"/>	Non-Cyber Incident Response Actions	Comments
<input type="checkbox"/>	Provide assistance to Corporate Crisis Manager (CCM) and/or Deputy Corporate Crisis Manager as directed.	
<input type="checkbox"/>	Liaise with Security Advisor to provide assistance with physical access to Corporate Emergency Operations Center (CEOC) and reporting during an incident.	
<input type="checkbox"/>	Liaise with IT Advisor to provide cyber security support as needed.	
<input type="checkbox"/>	Increase monitoring of systems and alerts.	
<input checked="" type="checkbox"/>	Post-Crisis	Comments
<input type="checkbox"/>	Complete internal review of IT Department Cyber Security plan.	
<input type="checkbox"/>	Assist in post-crisis evaluation.	

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SECTION 3: Responder Safety and Public Protection

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SECTION 3: Responder Safety and Public Protection

3.1 Introduction

Beyond meeting regulatory requirements, the primary purpose of an Emergency Response Plan (ERP) is to clearly define the framework, tools and procedures that facilitate the ability of PMC personnel to respond safely, quickly, consistently and effectively to operational and non-operational incidents.

PMC's incident priorities in order of importance are:



The key goals of the ERP are to:

- Protect the safety of the public, personnel (all responders including contractors), the environment and property.
- Provide personnel with established procedures to respond to an emergency.
- Provide personnel with access to critical information required to respond to an emergency.
- Eliminate or minimize the effects that incidents have on PMC operations.

3.2 Responder Safety

An essential element to effectively and safely responding to any incident is the establishment of responder safety/ site control zones. These zones are established by the Incident Commander or Safety Officer to:

- Ensure responder safety by limiting access to authorized personnel based on the risk(s) posed within the zone.
- Reduce the accidental spread of hazardous substances by workers and responders.
- Reduce exposure to hazards through restricted access and appropriate mitigative measures including but not limited to personal protective equipment (PPE).

Responder safety zones specify:

- The type of operations that can occur in each zone;
- The degree of hazard(s) at different locations within the incident site/impacted area; and
- The areas at the incident site that should be avoided by unauthorized or unprotected employees.

It is impossible to determine the responder safety zones before an incident occurs as they are specific to the incident and its location and must be identified based on site specific hazards. The incident will most likely include the definition of the Support and Exclusion zones and possibly the Contamination Reduction zone, as required. An additional Decontamination Corridor may also be defined for personnel and equipment to safely enter and exit the incident site, as well as remove any harmful chemicals or infectious organisms that may have adhered to them. The responder safety zones are defined specifically for each incident based on the nature and severity, as approved by the Incident Commander.

The three most frequently identified zones include:

1. The **Exclusion (Hot) Zone** is the area with actual or potential contamination and the highest potential for exposure to hazards. This is where the incident is taking place and where people, the environment, and/or property are at risk. The Incident Commander must clearly define the Hot Zone through analysis of available information. The Hot Zone must be clearly defined and marked to prevent unauthorized entry.

This Zone has the highest life safety hazard and therefore extreme caution, planning and protection needs to be taken prior to entry. Typically, the Hot Zone will be extended on the downwind side.

When determining the size of the Hot Zone, consider the following:

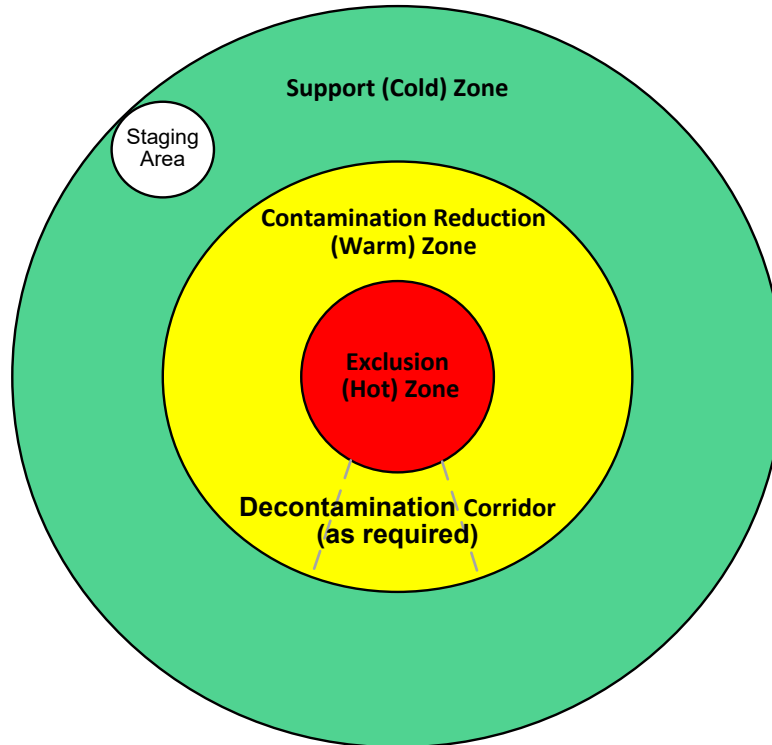
- Results of vapour monitoring;
- Location of vapour plume and potential direction of drift as well as the footprint of spilled product and it's possible trajectory;
- Location of access routes, power lines, other buried infrastructure such as pipelines
- Areas where vapours are likely to accumulate (downwind, low-lying areas, confined spaces, etc.)
- Site stability (steep slopes, overhanging banks, unstable soil, thin ice, flooding, etc.)
- Weather conditions
- Toxicity and/or evacuation data for product involved (refer to the MSDS and ERG 2016)

When addressing public safety, this zone must be evacuated of non-authorized personnel.

2. The **Contamination Reduction (Warm) Zone** is the transition area between the Exclusion (Hot) and Support (Cold) Zones. This area is where responders and equipment enter and exit the Hot Zone and where decontamination activities take place, as applicable. The Warm Zone must be clearly defined and marked to prevent unauthorized entry and typically be located uphill and upwind from the emergency site. If the emergency escalates, the Hot Zone could expand to include the Warm Zone.
3. The **Support (Cold) Zone** is the area near the site that is free from contamination and may be safely used for support services and facilities, including staging areas. The Cold Zone is where tactical responders will assemble prior to responding to the incident. No PPE is required to operate in the cold zone. The Cold Zone where responders are working must have clearly defined boundaries to prevent unauthorized access during the incident response.

When addressing public safety, members of the public outside of the working area are not at risk but awareness of changing conditions require planning in the event the risk to public safety escalates.

The following diagram illustrates the three Responder Safety Zones.



3.3 Emergency Planning Zone Determination

3.3.1 Emergency Planning Zone

The Emergency Planning Zone (EPZ) is a geographical area surrounding a well, pipeline, or facility containing hazardous product that requires specific emergency response planning. Responses for public protection in this area can include shelter-in-place, evacuation, and release ignition. All personnel must ensure they are familiar with the size of the EPZ.

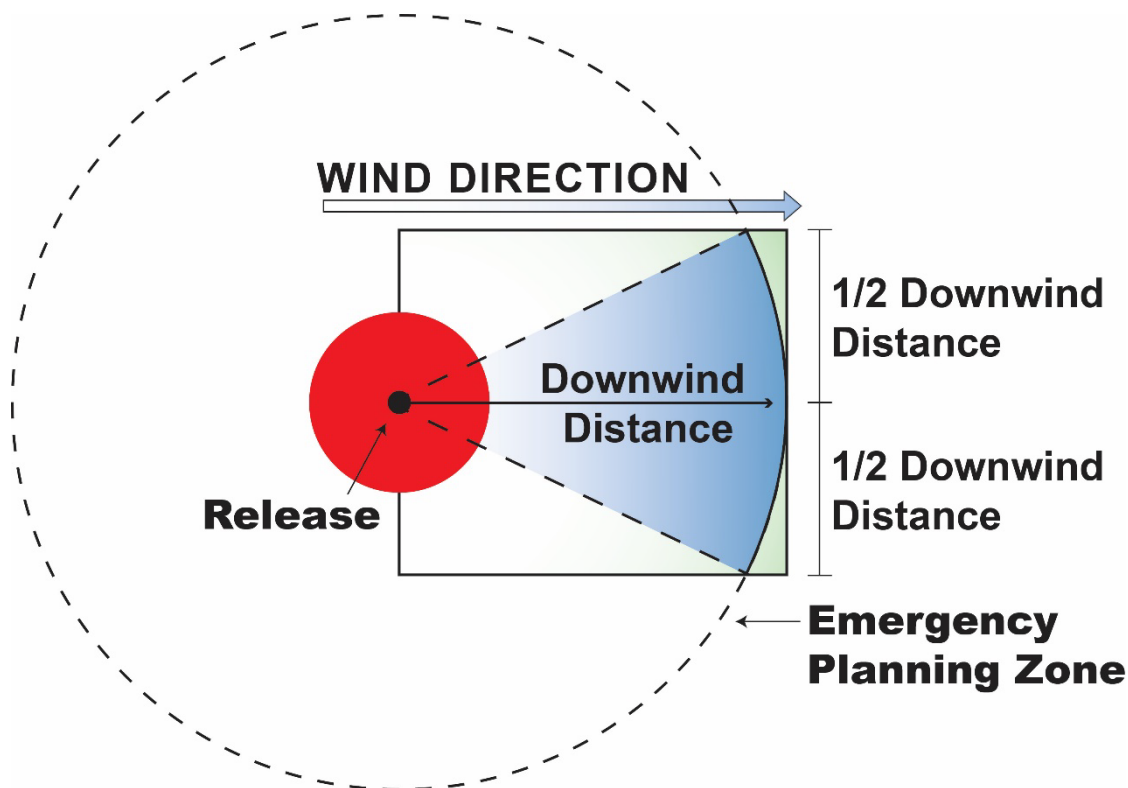
Whereas the EPZ is used for planning purposes and reflect an area where significant exposure could result without prompt action, actual conditions during an incident need to be assessed to ensure an appropriate initial response. The response zones are where resources are focused during an incident to protect public safety.

Calculating EPZs for Hydrogen Sulphide (H₂S or Sour Gas)

PMC determines EPZs using the applicable methodology as per provincial requirements industry and program standards. For example, in Alberta wells, facilities and pipelines that either produce or transport hydrogen sulphide (H₂S) have EPZs calculated by the ERCBH2S software program.

Calculating EPZs for HVP Product

The primary hazard associated with high vapour pressure (HVP) products is direct exposure to flame. The largest hazard area for emergency response planning is based on a flash fire. HVP pipeline EPZs are calculated using a standard industry table such as the *CAPP Companion Planning Guide to ERCB (now called the Alberta Energy Regulator) Directive 071* or by conducting plume dispersion modelling specific to the asset.



NOTE: Initial isolation and protective action zones are outlined for illustration purposes only.

3.3.2 Initial Isolation Zone

The Initial Isolation Zone (IIZ) defines an area in proximity to a continuous hazardous release where the public may be exposed to toxic concentrations of release, and sheltering may provide limited protection. All evacuation efforts must be initially focused in this zone.

3.3.3 Protective Action Zone

The estimated size of the Protective Action Zone (PAZ) is calculated using ERCBH2S modelling. Immediately following a release of the H₂S or HVP product, the approximate size and direction of the PAZ can be determined using actual conditions at the time.

The PAZ is based on current wind conditions, the product released and other factors. The PAZ is 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. The PAZ is the area within the EPZ in which parties may be at most risk of exposure during an incident, and it is intended to assist responders to focus and prioritize their emergency response efforts there.

To determine the size of the response zones, response personnel should approach the perimeter of the response zone cautiously so as not to exceed personal exposure limits and begin monitoring with handheld equipment at the nearest residence to the outer perimeter.

From this location the response personnel should continue to approach any additional downwind residences that may be closer to the release until the outer boundary of the response zone is validated.

3.4 Isolation of the Emergency Planning Zone

PMC may be required to establish and manage manned roadblocks in order to prohibit unauthorized entry into the response zones. It may also become necessary to obtain a fire hazard order, NOTAM, or to declare a state of local emergency to restrict access to a designated area.

Roads Roadblock personnel can set-up roadblocks on lease roads. The local authority must authorize the roadblocks on public roads within the municipality. Provincial Transportation Authority must authorize road closures on Provincial highways. Municipal personnel may assist with maintaining roadblocks during an emergency response.

Trails Access to trails may be restricted with roadblock personnel and/or municipal or provincial personnel.

Railroads CN, CP or private railroad companies will need to be notified of the situation and will stop or relocate rail traffic.

Rivers Rivers may need to be monitored to ensure that recreational users do not travel into the EPZ. This may be accomplished by working with municipal, provincial or private companies.

Air Notification to NAV Canada may be required to issue a Notice to Airmen (NOTAM) to advise pilots of airspace restrictions above the EPZ.

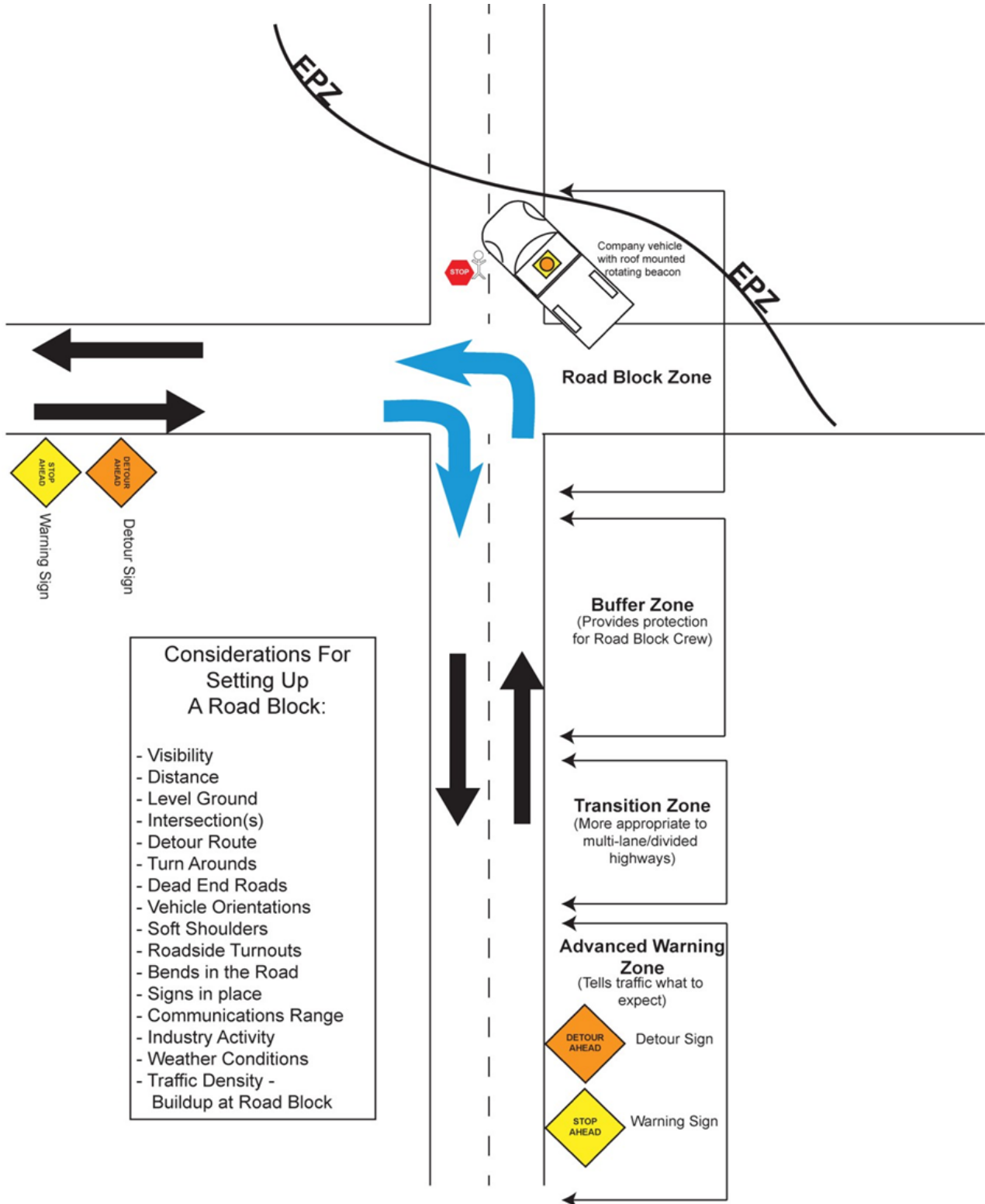
Roadblocks can be staffed by:

- PMC personnel
- Contracted personnel
- RCMP/Police
- Fire Department
- Municipal representatives

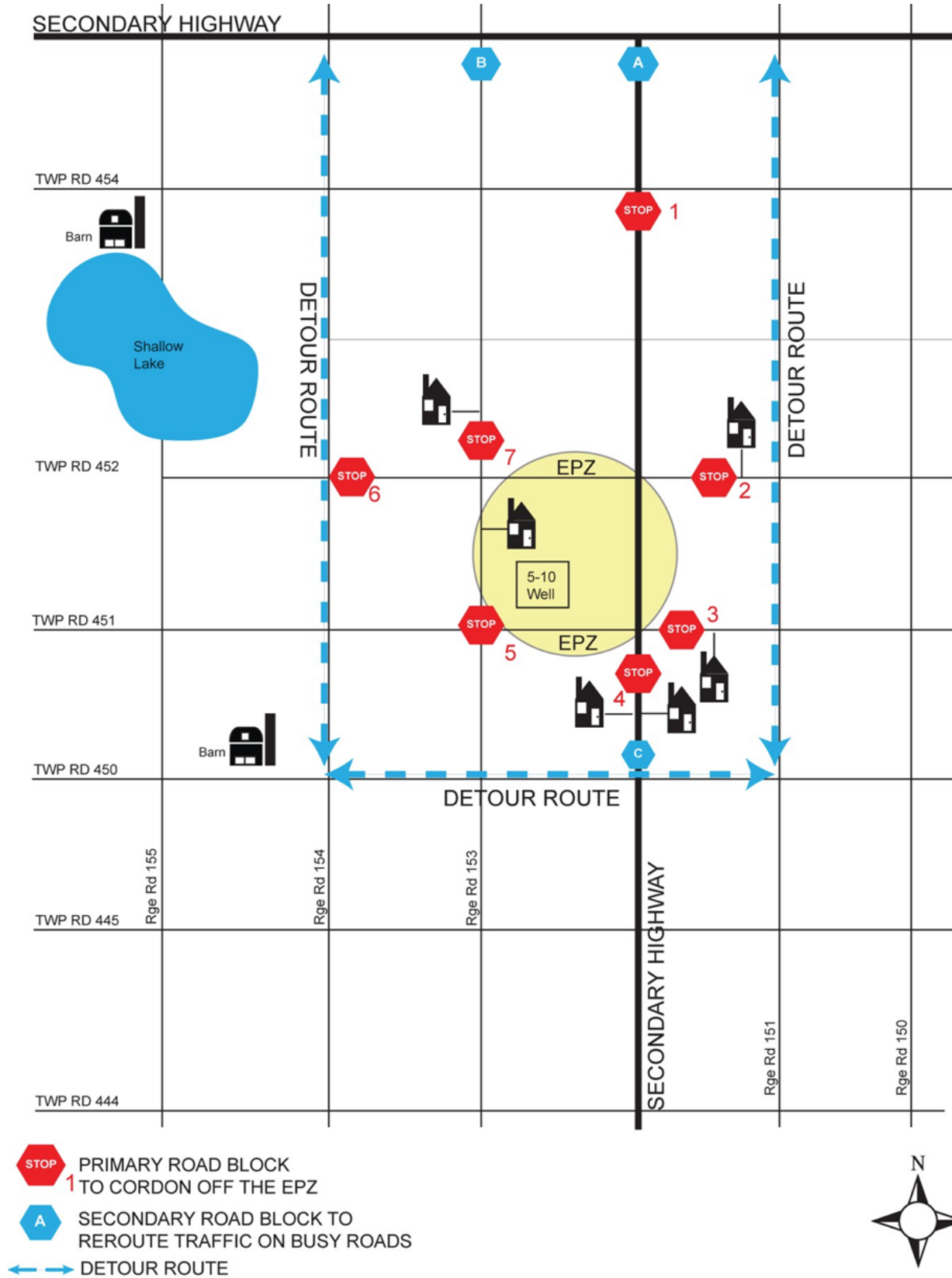
Roadblock personnel stationed at the roadblock locations will be equipped with the appropriate PPE. Roadblock Units shall restrict access into the area to authorized personnel only and maintain a record of persons entering or exiting the EPZ.

Persons allowed entry into the area will be checked in, briefed on the existing conditions and equipped with the appropriate PPE.

3.4.1 Primary Roadblock Example (for Single Lane Roads)



3.4.2 Roadblock Placement Example



3.5 Air Quality Monitoring

Air quality monitoring is used to track and record the presence, concentrations and lower explosive limit levels (LEL) of hazardous products such as hydrogen sulfide, sulphur dioxide and HVP product following a release.

Air quality monitoring occurs downwind, with priority being directed to the nearest un- evacuated residence or area where people may be present. Detailed records of monitored H₂S and SO₂ information will be kept and provided upon the request.

Air monitoring is used for:

- Tracking an H₂S / SO₂ plume
- Determine if ignition criteria is met
- Determine if evacuation or sheltering is required based on criteria
- Determine response zones and roadblock locations
- Determine H₂S / SO₂ concentrations in areas being evacuated to ensure safe evacuation
- Determine if the emergency can be downgraded based on readings
- Determine if response actions need to be taken beyond the EPZ

The type of air monitoring units and the number of monitors required are based on site specific information, including:

- Access and egress points
- Population density and proximity to urban density developments
- Local conditions
- Incident severity

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

See Section 7 for characteristics of H₂S and SO₂ vapours.

3.6 Evacuation

Within the EPZ, notification and evacuation is based on the risks associated with the release. Evacuation is the primary public protection measure when the public may be exposed to a hazardous situation and can be safely removed from the area. Evacuation begins in the IIZ and expands outward into the PAZ (downwind of the release).

If safe to do so, evacuation should take place before a hazardous situation has the potential to affect people in proximity. Careful consideration will be given to designate the safest evacuation route(s) for personnel and members of the public to evacuate the area

PMC will monitor air quality within the EPZ and surrounding area. Monitoring results will identify areas where evacuation is required. In the absence of monitored readings, responders should advise residents to shelter in place. Typically, residents within the EPZ, but outside of the PAZ, will be contacted and advised to initially shelter in place pending further instructions. PMC will evacuate the public based on air quality results and information gathered from incident assessment. This assessment will include incident

location, wind direction and wind speed, temperature, and geographical features such as rivers and mountains.

A shift in wind direction may require immediate re-evaluation of the PAZ and may prompt the need for additional evacuation and/or sheltering. Ignition will occur if criteria are met. If the release has been ignited, PMC will continue to monitor response zones for hazardous situations.

At an **Alert** or **Level 1** emergency, evacuation is not required; however, all those who requested early notification must be notified of the incident by telephone, personnel or rovers. Evacuation is not mandatory at this level; however, residents may wish to vacate if they so choose. A Reception Centre should be considered at the declaration of a Level 1 in the event that residents wish to vacate the area.

If the potential exists due to deteriorating conditions, or the emergency level has been designated at a **Level 2** or **3**, evacuation will commence of all residents closest and downwind from the release. This will occur through telephone calls, rover visits and pre-determined roadblock locations.

NOTE: PMC can recommend evacuation, but cannot force evacuation of the public. Mandatory evacuations can only be issued by the RCMP/Local RCMP and/or local jurisdiction.

Evacuation beyond the EPZ

In the unlikely event that public protection measures are required beyond the EPZ, they will be conducted in conjunction with the local authority.

Notification procedures are outlined in the Municipal Emergency Plan (MEP) may be used by the local authority to notify residents outside the EPZ. PMC supports Unified Command. PMC will work with the local authority to determine and execute appropriate public protection measures beyond the EPZ.

H ₂ S Concentrations in Un-Evacuated Areas	Requirements
1 to 10 ppm (3-minute average)	Individuals who requested notification so 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. PMC will use proper judgment in determining if evacuation is required.	

SO ₂ concentrations in Un-Evacuated Areas	Requirements
5 ppm (15-minute average)	Immediate evacuation of the area must take place.
1 ppm (3-hour average)	
0.3 ppm (24-hour average)	

Rovers

Rovers are responsible for travelling and monitoring the EPZ during an emergency situation. Rovers ensure all transients, recreational users, residents and other area users are properly notified and/or evacuated if the situation warrants. Rovers should be equipped with vehicles capable of carrying passengers allowing them to assist in the evacuation of the EPZ. Rovers will also be equipped with the appropriate PPE.

Prolonged Evacuation

If the incident is prolonged, PMC may:

- Provide instructions how to claim for incurred expenses.
- Provide assistance in arranging food and temporary accommodation.
- Provide area security.
- Arrange to replace responders.

Reception Centre

PMC may establish a resident Reception Centre when members of the public are evacuated as a result of a PMC incident. During an evacuation PMC will work together with local authorities and emergency social services to provide care for evacuees at the Reception Centre. Refer to the *IMH* for more information.

Return of Evacuees

Once the emergency is over, the decision to permit the return of persons will be made by the Incident Commander in consultation with regulatory agencies and local authorities.

Refer to the *IMH* for more information.

3.7 Shelter-In-Place

Shelter in place is the practice of going or remaining safely indoors during an outdoor release of a hazardous substance.

Shelter in place has been demonstrated to be an effective response during the first few hours of a substance release where public would be at the highest risk outdoors. Sheltering creates an indoor buffer to protect an individual from high concentrations that may exist outside.

The goal of sheltering 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.

If evacuation is not possible, then sheltering in place can be used to protect members of the public, under certain conditions.

Depending on the volume, size, duration, or meteorological conditions, sheltering in place may not be a viable public protection measure within the IIZ during release. In this situation the public safety aspects of sheltering in place will have to be continuously re-evaluated during the incident and assisted evacuation may be necessary to ensure public safety.

Members of the public within the EPZ but outside of the PAZ may be contacted and advised to initially shelter in place pending further instructions from a PMC representative.

Sheltering indoors is a viable public protection measure when:

- There is insufficient time or warning to safely evacuate the public that may be at risk.
- Residents are waiting for evacuation assistance.
- The release will be of limited size and/or duration.
- The location of the release has not been identified.
- The public would be at higher risk if evacuated.

3.7.1 Shelter-in-Place Instructions

- Immediately gather everyone indoors and remain there.
- Close and lock all windows and outside doors. If convenient, tape the gaps around the exterior door frames.
- Extinguish indoor wood burning fires. If possible, close flue dampers.
- Turn off appliances or equipment that either:
 - Blow out inside air, such as bathroom and kitchen exhaust fans, built-in vacuum systems, gas stoves, gas fireplaces, clothes dryers.
 - Suck in outside air, such as heating ventilation and air conditioning systems (HVAC) 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.
- Leave all inside doors open.
- Do not use the telephone, except for emergencies, so that emergency personnel can contact you.
- Contact emergency number provided at time of notification if you are experiencing symptoms or smelling odours or if you have contacted local emergency services, this allows responders to coordinate their response.
- Stay tuned to local radio and television for possible information updates.
- If you see people outside, do not leave until told to do so.
- If you are unable to follow these instructions, please contact the emergency number provided at time of notification.

Once the emergency situation has been corrected you will receive an “all-clear” message from the emergency response personnel and advised to:

- Ventilate the building.
- Open all windows and doors.
- Turn on indoor fans.
- Turn on the furnace.
- Avoid remaining inside during this time as the outdoor air may be fresher.
- Once the building is ventilated, return all heating, ventilating and other equipment to normal.

If sheltering procedures are implemented, continuous telephone contact with sheltered individuals will be maintained until a safe evacuation can be conducted or the emergency is resolved.

3.8 Ignition

PMC will monitor the incident continuously and take immediate measures to ignite a hazardous release if criteria are met. Ignition does not negate the need for continuing with evacuation as there may be residual hazards in the area. When gas is ignited, it is carried higher into the atmosphere by the heat of combustion. This causes any toxic gases to disperse over a larger area which will also be monitored.

Ignition discussions between the Incident Commander and the regulatory agency should occur at pre-set intervals until the situation is brought under control. Refer to *3.8.2. Ignition Checklist* for guidance pertaining to igniting a vapour cloud. Any decision to ignite an H₂S plume must be made in conjunction with the regulatory body and the regulatory body should be notified of the ignition of an HVP plume. The following factors should be considered before the decision to ignite proceeds:

- If evacuation is impractical and the health and safety of people are at risk, and therefore the release should be ignited promptly.
- The decision to ignite would be supported or directed by the regulatory agency.

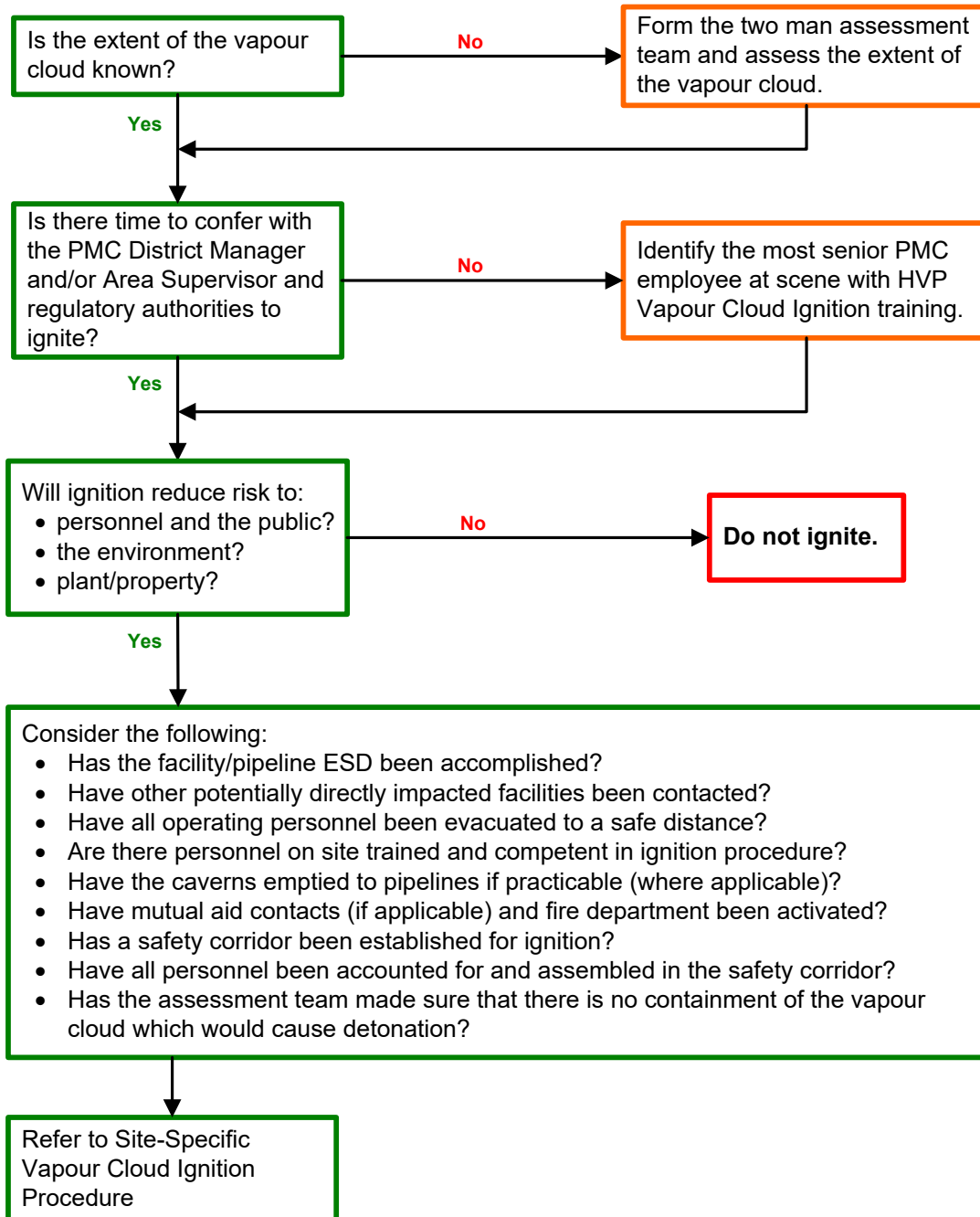
The Incident Commander must utilize the *3.8.1. Ignition Flowchart* and has authority to direct ignition of the release. This may be directed to an external service company or delegated to a qualified and trained company representative.

Ignition does not negate the need for continuing with evacuation, as there may be residual pockets of H₂S or SO₂ in the area.

NOTE: Ignition criteria can be found in 3.8.3. Public Protection Measures Flowchart and, if applicable, site specific vapour cloud ignition procedure may be referred to.

3.8.1 Ignition Flowchart

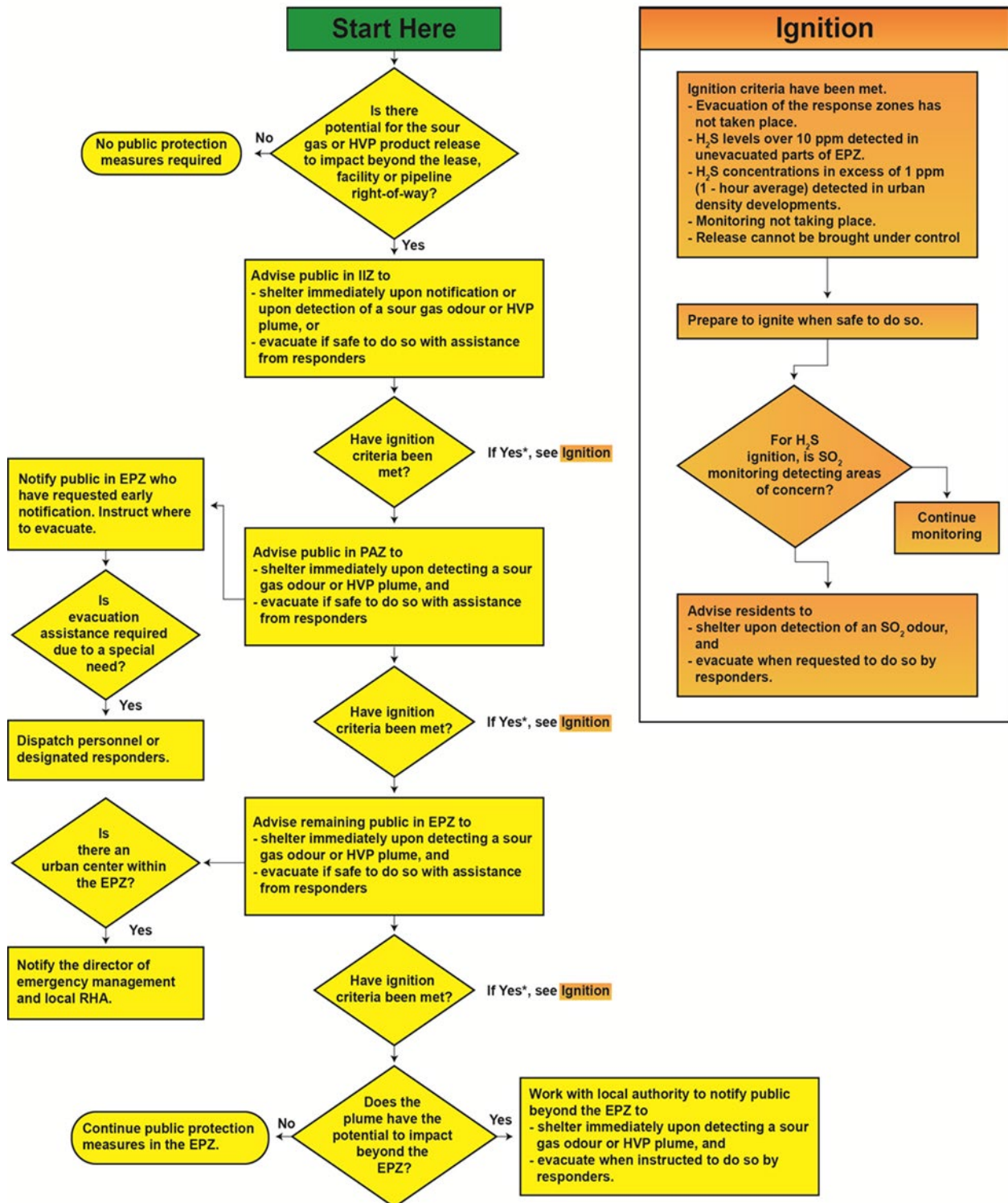
The following vapour ignition flowchart will be used in order to make the decision to ignite a release.



3.8.2 Ignition Checklist

IGNITION DECISION CHECKLIST	Yes / No
Facility / Pipeline Emergency Shut Down (ESD) accomplished	
Possible vapour cloud containment assessed in order to prevent detonation	
Vapour cloud extent assessed	
Potential for property and/or environmental damage due to accidental ignition and/or explosion assessed	
Risk to members of the public and response workers assessed	
Proximity to residences, public facilities, towns and urban centers assessed	
Fire hazard after ignition in relation to buildings, facilities, forested or cropland areas assessed	
Potentially directly impacted facilities contacted	
All personnel have been evacuated to a safe distance	
Personnel on site are trained and competent in ignition procedure	
Caverns emptied to pipelines if practicable (where applicable)	
Mutual aid (if applicable) and fire department have been activated	
Safety of ignition team is assured by clearly identifying the emergency hazard areas	
Safety corridor has been established for ignition	
All personnel have been accounted for and assembled in the safety corridor	

3.8.3 Public Protection Measures Flowchart



NOTE: AER Directive 071 – 14.3 Public Protection Measures (Figure 3).

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SECTION 4: Incident Specific Measures

The Incident Specific Measures section provides procedures and additional information specific to various emergency situations. This section is designed to support the existing procedures outlined within the Core ERP and pertain primarily to on-site tactical actions.

Additionally, PMC has established a response equipment program that includes:

1. Response Equipment Manual - Equipment lists, equipment location, custodian contacts, and maintenance requirements.
2. Spill Control Points - Location, access, local contacts, deployment procedures, and required equipment.
3. Specialized Emergency Response Tactical Training - Exercises and specialty training sessions that involve the deployment of response equipment to train responders for spill response on land, water and ice.

Available equipment includes, but is not limited to:

- Spill response workboats
- Spill response equipment
- Oil spill containment and recovery trailers
- Command trailers

Note: Refer to Section 9: Area Specific Information for more details regarding PMC Response Equipment.

4.1 Functional Support Plans

There are Functional Support Plans (FSP) available at the PMC Corporate Calgary Office, on PMC MyPlains (and associated PMC Department SharePoint sites), and a copy of each is available in the Corporate Emergency Operations Centre (EOC). These have been developed internally and/or provided by industry partners to support specific responses and our responding groups / departments. Each FSP outlines specific emergency situations and in some cases points to documents that reside within other departments for that functions support during an incident.

The FSPs that are available, but not limited to, for reference include:

Developed by PMC

- Crisis Communications Manual
 - Outlines crisis communication resources, procedures and protocols.
 - Some of the primary functions include:
 - Executive media conferences, media releases, preliminary statements, general holding statements, etc.
- Cyber Security Plan
 - Outlines resources and procedures for responding to a cyber-attack at Corporate, facility and field offices.
- Environmental Plan
 - Outlines resources and procedures for creating environmental plans specific to incident types and area surrounding. To be utilized in conjunction with incident specific measures outlined within the Core ERP.

Provided by Industry Partners

- Western Canadian Spill Services Ltd. (WCSS) Oil Spill Contingency Manuals
 - Manuals specific to responding to oil spills in the WCSS defined areas and zones.
- Emergency Response Assistance Canada (ERAC)
 - A generic ERAC manual that outlines their response protocol and expectations from the licensee.
 - PMC has ERAP numbers specific to each mode of transportation (truck, rail and commercial) that are specific to the products that PMC handles, stores and transports.
 - Refer to *8.7.1 Emergency Response Assistance Canada (ERAC)*.
- Industrial Wildfire Control Plans
 - Identifies manned locations that fall within identified Alberta Wildlife Management Areas and includes (not limited to):
 - Number of personnel on-site, length of time on-site (minimum 4 hours per day), response equipment and safety equipment
 - PMC has developed a GIS based alert system for impinging wildfires that is linked to the PINS process.

In addition, the following support groups will assist in minimizing the risk to PMC assets, stakeholders and employees:

Land

The Land FSP provides support by minimizing the risk to PMC’s assets through informing stakeholders, municipalities, communities and Indigenous Communities as required during an incident. This group also maintains the land contract records for all of PMC’s assets and will provide land ownership and contact information for access.

This FSP primarily focuses on supporting the incident response through consulting with those affected members of the public. Land and the Community Relations Advisor’s primary function will be as the Liaison Officers or the Operations Team within the Public Protection Branch.

Damage Prevention

The Damage Prevention (DP) FSP provides support by minimizing the risk to PMC’s underground infrastructure as required during an incident. This FSP primarily focuses on supporting the incident response through aerial and ground patrol. In addition, DP is involved with ROW surveillance and monitoring, line locating through On-Call notification and minimizing unauthorized activities. DP functions as Technical Specialists primarily found under the Planning Section, however they may reside in the Operations Section.

Cavern Integrity

The Cavern FSP provides support by minimizing the risk to PMC’s assets through providing technical advice and recommendations for asset integrity for underground storage caverns and associated wells as required during an incident. The Integrity Management Program (IMP) has been developed to meet or exceed applicable regulatory requirements and relevant standards, and considers industry best practices. The Cavern Integrity Management (CIM) Program provides the processes and procedures required to meet technical requirements for cavern and well integrity management.

This FSP primarily focuses on supporting the incident response through providing technical cavern data and information during a response. The Cavern Integrity group will be serving as Technical Specialist in the Planning Section.

Supply Chain Management (Logistics)

The Supply Chain Management FSP provides support for purchasing, procurement and contracting for goods and services in an incident as required. These services and tasks are supported through the Logistics Section function and occasionally through the Finance & Administration Section. This FSP primarily focuses on supporting the incident response through arranging for necessary equipment, materials, and support services to any incident facility (location), as well as to ensure that responders have the necessary transportation, lodging, medical, security, amenities, etc. to safely and properly respond.

Information Technology/Information Services (IT/IS)

The IT/IS Functional Support Plan (FSP) provides support for all information technology and related services in an incident, and more specifically as it relates to the Incident Command Post (ICP), Emergency Operations Centre (EOC), other incident facilities, and general responder communications. These services and tasks are supported through the Logistics Section via the Communications Unit and Facilities Unit. The FSP primarily focuses on the initial setup of the ICP and other incident facilities requiring technology and connectivity, as well as the ongoing maintenance and troubleshooting to ensure that all responders have the necessary equipment, communications, and capabilities to optimally perform their roles.

4.2 Fire / Explosion

Shutdown the equipment in the affected area, isolate and de-pressure from a remote location if it is safe to do so. For the safety of our workers, it would only be acceptable for workers to fight incipient fires (fires in the beginning stages).

The first person on scene will:

- Assume the role of Incident Commander until relieved by a more qualified individual.
- Assess the situation to ensure personal and others' safety.
- Evacuate personnel from hazard area, consider the following:
 - The availability of safe evacuation routes and ability to attend and transport injured personnel.
 - Determine need for backup or outside resources. Contact emergency services as needed (911, where available).
 - Initiate the evacuation alarm.
 - If dealing with fire, ensure backup is present or en route before attempting to contain or control the fire.
 - Assess the need to shut down the plant to minimize risk to personnel and equipment, execute if necessary.
 - Assess risk of controlling an incident with available personnel and equipment, execute if risk is deemed low.
 - Contact Control Room/Supervisor giving an initial assessment including location, area potentially affected and other hazards.

In addition, the Incident Commander will:

- Call the PMC 24-Hour Emergency Number.
- Ensure evidence is documented and secured for investigation.
- Review Incident Commander Checklist.

Boiling Liquid Expanding Vapour Explosion (BLEVE)

BLEVE is a process whereby the flammable liquid in a vessel is heated through an outside source (flame impingement). The added heat causes the liquid to vaporize and the pressure to rise in the vessel. When the pressure reaches the release pressure of the vessel's pressure safety valve (PSV) the valve will lift and return the pressure in the tank to a safe level and then close. If the external heated source cannot be eliminated, this process will continue. When the liquid level in the tank drops below the level of the flame impingement, the vessel will begin to weaken and will eventually result in a catastrophic failure or BLEVE. BLEVE's are not predictable. The vessel failure may occur within the first few minutes of the impingement or may take several hours.

Note: Fires that have potential for becoming a BLEVE would not be considered incipient fires and as such there is to be no approach attempts made for the purpose of attempting to fight the fire.

4.3 Hazardous Product Releases

4.3.1 Gas Release

The first person on scene will:

- Maintain a safe distance from gas release in the upwind or other safe direction.
- Assume the role of Incident Commander until relieved by a more qualified individual.
- Notify the Olds or Local Authorized Control Centre. Provide the following information:
 - Your name, location and contact number.
 - Location of the emergency.
 - Nature of the emergency.
 - Estimated size and/or seriousness of the emergency.
 - Initial indication of the equipment and manpower needed to respond the emergency.
- Don appropriate PPE. Isolate leak if it can be done safely, otherwise evacuate the area.
- Evacuate all personnel from hazard area to upwind or other safe location.
- Evaluate situation and provide information to the Control Centre as it becomes available.
 - Other hazards.
 - Wind direction and speed.
 - Ambient air temperature.
 - Location of release.
 - Product has been released.
 - Size of release. On or off site.
 - Vapour cloud location. Rate of travel.
 - Security and roadblocks.
 - Maintain the area secure until assigned a different duty.

In addition, the Incident Commander will:

- Use all available means of gathering information.
- Dispatch an Investigative Team, if safe to do so.
- Call the PMC 24-Hour Emergency Number.
- Communicate with Operations Section Chief.
- Sound any available alarm. Do not hesitate to muster when situation is unclear.
- Account for all personnel on site.
- Alert other personnel in area about nature and location of incident and, if necessary, isolate the area and evacuate non-essential personnel to a safe area.
- Determine the Level of Emergency. (Refer to the *Section 1*)
- Assign a Documentation Unit Scribe/Aide.
- Notify the Regulator and other appropriate agencies as required.
- Ensure own safety and that of fellow responders; work closely with the Site Safety Officer, if assigned.
- Initiate defensive (e.g., vacate area) and/or, if qualified, initiate offensive response actions (e.g. isolate, depressurize) consistent with the level of expertise and training, knowledge of problem(s) and understanding of hazards.

- Make decision on what processes to shut down, which valves to close, etc.
- Communicate with On Site Personnel to evaluate situation on ongoing basis.
- “Size up” situation to identify problem(s) to be addressed by incident site personnel.
 - Is gas going offsite?
 - Are there ignition sources in area?
 - Will gas supply diminish?
 - Can gas supply be eliminated?
 - Is ignition a safe or better option (Refer to the *Public Protection* Section)?
 - Determine if local residents and businesses are potentially at risk. (Refer to the *Public Protection* Section).
- Refer to Incident Commander Checklist.

4.3.2 Vapour Cloud

The first person on scene will:

- Assume the role of Incident Commander until relieved by a more qualified individual.
 - Evacuate all personnel from hazard area.
 - Move to a safe area immediately.
 - Move upwind if release is downwind of your location.
 - Move crosswind if release is upwind of your location.
 - Move to higher ground if possible.
 - Sound the alarm.
 - Assess the situation to ensure personal and others’ safety.
 - Account for all personnel.
 - Consider other hazards.
 - Protect yourself by donning appropriate Personal Protective Equipment (PPE) as required before attempting a rescue.
 - Move victim(s) to a safe area and administer first aid as necessary.
 - Request emergency medical services, as required.
 - Arrange transport of victim to medical aid.
 - Provide information to Emergency Medical Services (EMS).
 - Determine need for backup or outside resources.
 - Notify the Olds or Local Authorized Control Centre and direct Supervisor.
 - Document all information by completing the required forms in the Forms Section.
 - Isolate the source of the leak, provided there is no danger to life in doing so.
 - Establish roadblocks to prevent any unauthorized personnel from entering the incident site and monitor air quality at roadblocks.

In addition, the Incident Commander will:

- Call the PMC 24-Hour Emergency Number.
- Account for personnel on site.
- Ensure all potential sources and concentrations of product are identified on site.
- Ensure required communication occurs between internal and external people.

- Ensure appropriate air quality monitoring is taking place.
- Request additional resources, as required.
- Ensure evidence is documented and secured for investigation.

Vapour clouds are formed when a hydrocarbon or other material is released to the atmosphere. The release can occur as a vapour jet, a liquid jet, or a liquid spill. The type of release affects the characteristics of the vapour cloud.

The vapour jet is formed when a leak occurs on a service that is operating at a pressure that is lower than the vapour pressure of the fluid at the given operating temperature. When a leak occurs, the vapour is expelled at a velocity that is dependent upon the pressure of the system. The higher the operating pressure, the higher the velocity. At relatively high pressure, this velocity approaches the speed of sound.

Liquid jets occur when a leak occurs on a system that is operating at a pressure above the vapour pressure of the fluid at the given operating temperature. Liquid is released and a portion will vaporize if the normal boiling point of the material is below ambient temperature. In addition, as the liquid droplets mix with air and contact the ground, additional liquid will vaporize due to heating from these media. The pool that forms on the ground will continue to vaporize as it absorbs heat from the ground.

The liquid pool is formed when a leak occurs on a service that has a vapour pressure that is lower than the atmospheric pressure at the ambient temperature. The fluid spills to the ground and will begin to evaporate. The rate of evaporation is dependent upon the vapour pressure of the fluid at the ambient temperature – the higher the vapour pressure, the higher the rate of evaporation – and characteristics of the surface on which it spills. The vapour that is formed will produce an explosive mixture in the vicinity of the spill.

Vapour Plume Management

A vapour plume is the visible cloud or fog of hydrocarbon vapours emanating from an HVP piping leak site. It is a result of the hydrocarbon vapours condensing moisture out of the surrounding air. The visible vapours do not necessarily determine or indicate the extent of the hydrocarbon vapours. On a windy dry day, the visible portion may only exist for a short distance while on a calm day it will be visible for a much greater distance.

The size of the leak and normal operating pressure on the line may also be a large factor in the size of the plume. A large break on a small line will produce a large cloud for a short time period after which it will reduce to the steady “boil off period”. If the line is large this “boil off period” may last several days.

It should be noted that the actual size and safe limits of a plume’s boundary would only be determined by using a combustible gas detector.

PMC's Practice for a Controlled Vapour Cloud Ignition

Scope and Applicability

This practice applies to all plants, pipelines, storage cavern and terminals, rail and truck loading and offloading facilities.

The purpose of the practice is to provide guidelines for controlled ignition as a method for controlling vapour clouds formed as a result of high vapour pressure (HVP) product releases. The purpose of the ignition is to reduce risk to personnel, the public, environment, plant and property. The practice defines circumstances, evaluation methods, minimum training requirements and the decision process for personnel who will ignite HVP vapour clouds.

Due to a vast number of variables involved during a HVP product release it is not possible to capture all scenarios and possible response methods for each scenario in this practice. This practice should be used and a guideline for ideal course of action for controlled HVP vapour cloud ignition. Never replace common sense with instructions listed in this manual.

Scope of Responsibility

The PMC District Manager or his/her delegate must ensure that:

- Emergency response plans are in place to address specific HVP product release scenarios
- The workers are trained and competent to operate gas monitors and ignition equipment
- All gas monitors are periodically calibrated and ignition equipment is properly inspected prior to ignition
- A hazard assessment is completed prior to starting work that includes identification of the extent and the composition of the plume, travel path, meteorological conditions, and topography of the area. From this assessment, it can be determined whether ignition is the most favourable control option

Scope of Training, Certification and Competencies

Only trained and competent authorized personnel will be permitted to ignite HVP plumes in order to prevent vapour clouds from migrating out of controlled areas or reaching process areas. Acceptable form of training is Enform's Vapour Plume Ignition Training course, or a comparable course approved by Liquids Operations HSSE Manager

Scope of Application

Ignition of any HVP product vapour cloud will be considered as an alternative control measure when public and personnel health or safety is at risk as the vapour could show potential to migrate.

- The Area Manager or his/her delegate with HVP ignition training has the authority to ignite the leak. If hazard would be increased by waiting to attempt communication with the Area Manager or the delegate for permission to ignite the plume, the most senior PMC employee at the scene with HVP ignition training can make the decision
- Depending on availability of time, decision to ignite the release will be made in conjunction with the Incident Commander (if accessible), Calgary EOC (if convened) and Regulatory Authorities (e.g. AER)
- First step in evaluation is to determine the extent of the flammable vapour cloud. This will be achieved by two workers (the Assessment Team) walking around the plume with gas monitors. This practice will also allow personnel to establish any low lying terrain features where the cloud may extend further. At no point will the assessment team get into an area where gas concentration is greater than 10% LFL. It is recommended that decision to ignite is not taken unless a full circle around

the vapour cloud has been completed. However, where it is not possible to complete a full cycle, Ignition Team will make an assessment whether it is possible to determine the extent of the flammable vapour cloud by alternative methods e.g. By line of sight

- The Assessment Team will identify how vegetation, road access, power lines, etc. will affect the behaviour of the vapour cloud and control operations. The team will also make sure that the vapour cloud is not trapped/contained in any kind of structure which would cause detonation if ignited
- Wind direction will be constantly monitored in case it changes

The following will be considered prior to ignition:

- Is there a greater potential for property and/or environmental damage due to accidental ignition and/or explosion?
- Are any members of the public or response workers at risk?
- Is the proximity to residences, public facilities, towns and urban centres known?
- Is the status of evacuations known?
- Is there a fire hazard after ignition in relation to buildings, facilities, forested or cropland areas? (flame front may affect all structures)
- Is the safety of ignition team assured by clearly identifying the emergency hazard areas?

The following actions should be taken prior to ignition:

- Isolate the product with automatic or manual valves as quickly as possible
- Put all affected site plants and pipelines into emergency shut down and evacuate all operating personnel to a safe distance
- Initiate the notification process
- If the leak is at a cavern, empty the caverns to pipelines if it is deemed safe and practical to do so by the management of pipelines
- Activate mutual aid (if applicable) and fire department
- Contact neighbouring residences and facilities, begin public evacuation if necessary
- Notify all other potentially impacted facilities
- Ensure that a safety corridor has been established prior to proceeding with ignition.
- Ensure that all personnel are accounted for and assembled in the safety corridor

Equipment Required:

- Flare Pistol and Flares (minimum 10). Parachute type flare shells are not permitted as these shells are highly inaccurate and their use in HVP ignition is limited
- Wind Direction Device. Where windsocks are not available use a piece of light tape attached to a rod or hand held radio antenna
- Flammable gas monitors, charged and calibrated
- Two way communication devices
- Binoculars
- Inherently Fire Retardant (IFR) Clothing

Note: A two man team trained in controlled vapour ignition and gas monitoring is required for ignition (Ignition Unit).

Ignition Actions

- Ignition must be attempted from a safe distance and in a gas free area; preferably with the shooter protected by a structure
- Approach the vapour cloud from upwind and to the side. This is to provide a wider vapour cloud cross section to aim at
- Fire shells toward the plume from a maximum upwind range
- Initially attempt to hit the perimeter of the vapour cloud where air to fuel mixtures are correct for ignition
- If the flare lands short and no ignition takes place, it can be assumed that the flare is not in the flammable vapour cloud. Move closer provided that you do not get into an area where the gas concentration is greater than 10% LFL
- Repeat until ignition is successful and sustained

Post Ignition Procedures

- Advise Incident Commander of ignition status
- Continually monitoring for Flammable Vapours in downwind and low-lying areas, Emergency Hazard Area and EPZ
- Continue monitoring wind direction and speed
- Maintain security around immediate area of the burning gas
- Monitor all personnel for injuries
- Evaluate the potential of fire spread
- Follow established fire control procedures at site.

Refer to *Section 3: Responder Safety and Public Protection, 3.8 Ignition* for additional information

4.3.3 Pipeline Release

The first person on scene will:

- Assume duties of Incident Commander until relieved by a more qualified individual.
- Contact Control Centre to provide information, giving an initial assessment including location, area potentially affected and other hazards. Provide the following information:
 - Your name, location and contact number.
 - Location of the emergency.
 - Nature of the emergency.
 - Estimated size and/or seriousness of the emergency.
 - Initial indication of the equipment and manpower needed to respond to the emergency.
- Don appropriate PPE.
- Determine leak location, maintaining safe distance from the release in the upwind direction. Use gas detection to ensure safe distances.
- Eliminate all sources of ignition.
- If safe to do so, isolate leak (e.g. close manual valves).
- Alert personnel in area and control access to area.
- Evacuate all non-essential personnel from hazard area.
- Evaluate situation and convey information to the Control Centre on an ongoing basis.

- Other hazards
- Wind direction and speed.
- Ambient air temperature.
- Location of release.
- Product released.
- Size of release. On or off site.
- Vapour cloud location. Rate of travel.
- Security and roadblocks.

An investigative team may:

- Ensure team members are properly equipped, including:
 - Vehicle
 - Radio or telephone
 - Monitors and/or explosion meters
 - Flare gun and flares
 - Danger/ warning markers
- Travel to incident scene; observe safe approach guidelines.
- Ensure own safety and safety of all responders.
- Obtain the status of the incident from the Control Centre before approaching the leak.
- Advise the Control Centre of safe routes to leak area.
- Confirm that the Control Centre has shut down the pipeline section or system, if appropriate, and/or has remotely closed valves in the suspect location.
- Approach the leak from an upwind direction, if possible, using explosion meters and/or LEL monitors
- Check any buildings within the vicinity of the leak and evacuate any persons potentially in danger.
- Determine the extent of the danger area and if the hazard can be reduced by ignition.
- Maintain communications with the Control Centre.
- Maintain watch over leak area and warn person(s) away from danger.
- Locate suitable locations along pipeline for stopple installations on each side of leak. Locations must have regard for safe working condition, access and location of existing valves.
- Give direction to emergency crew to excavate for stopple installations.
- Request additional support or resources as needed.

In addition, the Incident Commander will:

- Travel to incident scene; observe safe approach guidelines.
- Call PMC 24-Hour Emergency Number.
- Notify the Regulator and other appropriate agencies as required.
- Account for all personnel on site.
- Ensure own safety and safety of all responders; work closely with Safety Officer.
- Determine the Level of Emergency. (Refer to Section 1).
- Assign a Documentation Scribe/Aide.

- Alert other personnel in area about nature and location of incident and, if necessary, establish an Isolation Perimeter and evacuate non-essential personnel to a safe area outside the perimeter.
- “Size up” situation to identify problem(s):
 - Is product going offsite?
 - Are there ignition sources in area?
 - Will energy supply diminish?
 - Can source be eliminated?
- Determine if local residents and businesses are potentially at risk.
- Determine type and level of security needed to maintain Isolation Perimeter.
- Develop solutions to problems and delegate work that needs to be done into manageable tasks.
- Place additional personnel and resources on standby, if required.
- Compile and maintain appropriate documentation.

Third Party Identification of a Potential Pipeline Release/Leak

- Establish/record details of incident from caller or SCADA/Leak detection system.
- Record the following information:
 - Caller’s name, phone number, incident location (including LSD, if available), date and time.
 - Pipeline damage, vapour cloud, fire explosion, natural disaster or terrorist activity.
 - Conditions (burning, blowing, cloud), wind direction and speed.
 - Parties notified: Police, Fire Department, and Municipalities.
 - People on site, injuries.
 - Immediate danger to; town, farm, residence, industry, traffic.
- In the case of a vapour cloud, inform the caller of dangers, advise to evacuate the area.
- Only if safe to do so, and if possible, request caller to remain in contact until pipeline personnel arrive.

Shutdown and Isolation Procedures

Refer to the **Pipeline Control Centre Event Checklist** for additional guidance on shutdown actions.

- Immediately shutdown injections into pipeline and all pumps upstream of incident.
- Continue with deliveries upstream and downstream and run downstream pumps until pressures are as low as possible at incident location.

4.4 Spill or Leak

4.4.1 Spills

The first person on scene will:

- Assume the role of Incident Commander until relieved by a more qualified individual.
- Assess the situation to ensure personal and others' safety. Consider other hazards.
- Sound alarm and evacuate all personnel from hazard area, consider the following:
 - Move to a safe area immediately.
 - Move upwind if release is downwind of your location.
 - Move crosswind if release is upwind of your location.
 - Move to higher ground if possible.
- Protect yourself by donning appropriate Personal Protective Equipment (PPE) as required before attempting a rescue.
- Move victim(s) to a safe area and administer first aid as necessary.
- Determine need for backup or outside resources. Contact emergency services as needed (911, where available).
- Notify the Olds or Local Authorized Control Centre to provide information, giving an initial assessment including location, area potentially affected and other hazards. Provide the following information, if available:
 - The location of the leak.
 - The nature of the substance being released.
 - An estimate of the size and seriousness of the leak.
 - Indication of the equipment and manpower needed to control the release, and the action planned prior to additional staff arrival.
- Establish roadblocks to prevent any unauthorized personnel from entering the incident site and monitor air quality at roadblocks.
- Use barricades and/or flagging to secure the area, if necessary.
- Implement control procedures to minimize the impacts. For a spill utilize the appropriate absorbents and/or berms downstream of the impacted area and only once safe to do so.
- Document actions on an ICS 201.

In addition, the Incident Commander will:

- Call the PMC 24-Hour Emergency Number.
- Account for personnel on site.
- Ensure all potential sources and types of products are identified.
- Ensure appropriate air quality monitoring is taking place.
- Ensure required communication occurs between internal and external people.
- Ensure evidence is documented and secured for investigation.

Initial Response to a Spill

A hazard assessment must be completed prior to conducting tactical operations and appropriate safety measures put into place. The Incident Commander directs the immediate isolation of the source and

containment of the spill as long as there is no immediate danger to health or safety. The containment may include closing or blocking culverts, temporary ditching or berms and using absorbents. The IC will also ensure an Emergency one-call is placed before any possible ground disturbance.

Possible spill impacts must be assessed, including areal extents. Aerial overflights should be established as soon as possible. Specific tactical measures to respond to spills can be found in the WCSS Spill Response Manual.

The emergency phase of a spill response will continue until all parties in Unified Command agree there is no further risk to people, property and the environment. At this time, remediation and restoration activities may still be underway, but will become a project rather than an emergency response.

Spills - Waterway

Always approach a spill with caution, from upwind and uphill, testing with a gas detector. A specific plan of action must be implemented when a leak is reported to be near or into a body of water. The immediate priority when tactically responding to spilled product in or near water is to prevent migration. Containment, recovery and storage tactics must be established as quickly as safely possible. The fate and behavior of the product will have an impact on response measures and thus should be assessed as early as possible.

Immediate actions will include:

- Public and official authorities downstream from the leak shall be contacted and informed of the situation. They may also be invited as a Stakeholder or member of Unified Command if they are providing response resources.

Containment of Natural Gas Liquids (NGL) mix when spilled in a waterway is not safe, nor feasible. These products are typically flammable and explosive and should not be contained to a pooled area. Feasibility wise, the nature of the liquid, rapid evaporation and low film strength will not permit absorption or the use of a floating dam to contain it.

Spill - Land

Always approach a spill with caution, from upwind and uphill, testing with a gas detector. Keep sources of ignition away from the area covered by the vapour. Special caution must be used downwind and downhill from the spill as liquid spills will spread and pool in low lying areas.

The appropriate tactical response measures to contain, recover and store spilled product should be developed at the time and are dependent on the situation. Recovery should not begin until storage and/or transport is arranged.

Depending on the specific product, the fate of the spill will vary and must be assessed in order to maximize response efforts.

NGL Mix Spilled In Waterway

Leaking natural gas liquid mix will boil into the atmosphere creating a vapour cloud that will, if trapped in a valley, move downwind. The cloud of vapour is extremely volatile and the outer fringes may be at, or near, the lower explosive limit (LEL).

- All sources of ignition in the path of the vapour cloud shall be eliminated.
- The cloud of vapour shall be monitored from upwind until it is obvious that it has dispersed into the atmosphere. The refrigerating effect of the rapid boiling and gas expansion can freeze the soil surrounding the pipe. The amount of freezing is directly related to the size and movement of the body of water and the severity of the rupture.
- Plume ignition must be considered as a tactical response and only carried out once approved by the Incident Commander and by trained personnel.

4.4.2 Leaks

- Immediately and safely shut down the source.
- All shut-down procedures to be recorded and confirmed before work commences at the accident site.
- Implement emergency action plan for the isolated section.
- Dispatch fully equipped contract crews.
- Dispatch resources including bulldozers, backhoes, air compressors, as the need requires. Ensure One-Call has been completed and responded to prior to any ground disturbance and crossings.

Small Leak

A small Leak of NGL will not usually present a significant hazard in an open area where the liquid is vaporizing as it leaks and the vapours are dispersing in the air as they form. A small leak of this substance may cause a hazardous condition if the vapours collect in a confined space in quantities sufficient to form a flammable mixture.

Response Actions

- PMC personnel dispatched to leak area.
- Outline a safe perimeter around the leak and set up necessary road blocks.
- Determine if evacuation is necessary.
- Determine and carry out repair.
- Arrange for surveillance of any temporary repair until permanent repairs are completed
- Arrange for permanent repairs and area clean up.

Medium Leak

A leak of a size such that the vapour does not disperse within a small area creates a very hazardous condition. The cold vapour, heavier than air, will tend to flow downwind and into depressions and form a flammable mixture with air.

The area downwind of a leak of adjacent lower areas should be approached only with an explosion meter to avoid flammable concentrations of vapour mixtures.

If a quantity of liquid has escaped and vapourizes, all sources of ignition, such as car and truck engines, must be kept well away from the probable hazardous area.

Response Actions

- Contact Control Centre to shut down pipeline.
- Investigate leak, report the conditions.
- Outline a safe perimeter around the leak and set up necessary road blocks.
- Call the PMC 24-Hour Emergency Number.
- Advise local police, request assistance to control people in the area. Direct police to site with a safe approach route.
- Approach leak site from upwind.
- Determine if evacuation is necessary.
- Determine if the hazard can be reduced by igniting the vapour. Plume ignition may only be carried out by trained personnel.
- Advise the Emergency Operations Center (EOC) of proposed actions including ignition decision and repair plans.
- Maintain communications with all affected parties.
- Carry out all possible safety measures. Arrange for surveillance of any temporary repair until permanent repairs are completed.

Large Leak

A large leak of NGL may be caused by damage to the pipe by external sources. This can quickly be detected at the Control Centre due to volume balance upset and changes in operation pressures. The Leak Detection Model should detect a large leak within minutes of its occurrence. Such a leak will also probably be reported from the site.

There will be an immediate outflow of liquid at the failure followed by intermittent slugs of liquid and vapour. About one-third of the liquid will flash into vapour. The remainder will form a pool of super cooled liquid and vapourize as rapidly as the heat flow from the surrounding air and ground will permit.

If the flammable vapour-air plume formed at the leak has not ignited, it will have reached its greatest size within the first half hour from the time the leak occurred. Every effort should be made to prevent ignition of the vapour-air plume until the line fill available to the leak is depleted and the plume becomes diluted below the lower flammability limit.

Response Actions

- Shut down equipment with leak and close remotely operated valves upstream from leak.
- Investigate leak, report the conditions.
- Outline a safe perimeter around the leak and set up necessary road blocks.
- Notify PMC 24-Hour Emergency Number
- Advise local police, request assistance to control people in the area. Direct police to site with a safe approach route.
- Approach leak site from the windward direction.
- Determine if evacuation is necessary.

- Determine if the hazard can be reduced by igniting the vapour from the leak following evacuation of the area. Plume ignition may only be carried out by trained personnel.
- Advise Emergency Operations Center (EOC) of proposed actions including ignition decision and repair plans.
- Maintain communications with all affected parties.
- Carry out all possible safety measures. Arrange for surveillance of any temporary repair until permanent repairs are completed.

4.5 Transportation of Dangerous Goods

Transport Canada develops safety standards and regulations, provides oversight, and gives expert advice (through the Canadian Transport Emergency Centre — CANUTEC) on dangerous goods accidents to promote public safety in the transportation of dangerous goods by all modes of transport in Canada.

In the event of an emergency involving dangerous goods, call CANUTEC at 1-888-CANUTEC (226-8832); 613-996-6666 or *666 on a cellular phone. CANUTEC is the Canadian Transport Emergency Centre operated by the Transportation of Dangerous Goods (TDG) Directorate of Transport Canada.

4.5.1 Trucking / Rail

The first priority following any must be the health and safety of all persons involved. The response will depend on the incident and resources readily available, and include the administration of:

- Securing the scene (prevent access, further injury or damage and to assist with investigation).
This OHS regulation
- Provide first aid or CPR.
- Use of small-scale fire suppression.
- Execute evacuation.
- Shut-down equipment.
- Notify responders-police, fire, ambulance.
- Notify company representatives.
- Notify additional responders ERAC, CANUTEC, or Chemtrec, as required.

Drivers are responsible to have responder contact information for transportation jurisdictions.

Packing Group information (refer to the product SDS) may be required for emergency response planning.

Incidents involving rail transportation will be jointly managed by both the product consignor and transporter (rail operator) as applicable.

Once the situation is secured, additional assistance may be sought as required. The ERP notification procedures may be initiated based on the corporate assessment.

Vehicle Incident

The first person on scene will:

- Assume the role of Incident Commander until relieved by a more qualified individual.
- Assess the situation to ensure personal and others' safety.
- Determine the necessary Personal Protective Equipment (PPE) needed to safely carry out response actions.
- Shut off all ignition sources if safe to do so.
- Evacuate non-essential personnel from hazard area.
- Administer first aid as necessary.
- Determine need for backup or outside resources. Contact emergency services as needed (911, where available).

- Contact immediate supervisor giving an initial assessment including location, area potentially affected, injuries and other hazards.
- Gather names/addresses/phone numbers of any witnesses.
- Establish roadblocks, if necessary.

In addition, the Incident Commander will:

- Call the PMC 24-Hour Emergency Number.
- Account for personnel on site.
- Ensure required communication occurs between internal and external people.
- Establish and maintain a secure incident scene.
- Request additional resources, as required.
- Complete the appropriate documentation.
- Ensure evidence is documented and secured for investigation
- Review Incident Commander Checklist.

4.5.2 Emergency Response Guidebook (ERG)

The Emergency Response Guidebook (ERG) was developed jointly by Transport Canada (TC), the U.S. Department of Transportation (DOT), the Secretariat of Transport and Communications of Mexico (SCT) and with the collaboration of CIQUIME (Centro de Información Química para Emergencias) of Argentina, for use by fire fighters, police, and other emergency services personnel who may be the first to arrive at the scene of a transportation incident involving dangerous goods.

The ERG was last updated in 2020 and is primarily a guide to aid first responders in quickly identifying the specific or generic hazards of the material(s) involved in the incident, and protecting themselves and the general public during the initial response phase of the incident.

This guidebook will assist responders in making initial decisions upon arriving at the scene of a dangerous goods incident. It should not be considered as a substitute for emergency response training. The ERG does not address all possible circumstances that may be associated with a dangerous goods incident. It is primarily designed for use at a dangerous goods incident occurring on a highway or railroad.

To view the ERG - 2020: <https://www.tc.gc.ca/eng/canutec/emergency-response-guidebook.html>

4.6 Natural Disasters or Severe Weather

(Including a grass fire, forest fire, flooding, tornado or thunderstorm)

The first person on scene will:

- Assume the role of Incident Commander until relieved by a more qualified individual.
- Assess the situation to ensure personal and others' safety.
- Evacuate personnel from hazard area.
- Administer first aid as necessary.
- Determine need for backup or outside resources. Contact emergency services as needed (911, where available).
- Notify the Olds or Local Authorized Control Centre to provide information, giving an initial assessment including location, area potentially affected and other hazards.
- If dealing with fire, ensure backup is present or en route before attempting to contain or control the fire.
- Assess risk of controlling an incident with available personnel and equipment, execute if risk is deemed low.
- If alerted of severe weather patterns seek shelter and remain indoors, if possible.

In addition, the Incident Commander will:

- Call the PMC 24-Hour Emergency Number.
- Account for personnel on site.
- Ensure required communication occurs between internal and external people.
- Implement control procedures to minimize impact including deciding what gets shut in or isolated or when the facility should be evacuated.
- Request additional resources as required.
- Ensure evidence is documented and secured for investigation.
- Review Incident Commander Checklist.

4.7 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.

Responsibility for Notification

Employee	Notification of an employee’s next of kin is the responsibility of the RCMP or local police. The Incident Commander will designate a PMC representative to participate in the notification.
Contractors	Notification about contractors should be made by the RCMP or local police together with the employer. The Incident Commander will ensure that the contractor’s management is notified. Some independent contractors may not have a head office. In such cases, the Incident Commander will designate a PMC representative to participate in the notification.
Public	If a member of the public is injured or killed as a result of PMC operations, notifications will be coordinated through the RCMP or local police.

Consider involving the PMC Human Resource department for additional and ongoing support.

Before Notifying the Next of Kin

- Never release names before the next of kin are notified.
- Whenever possible, a senior company representative will participate with the RCMP, or local Police.
- Be prepared to support the next of kin. Consider assistance such as transportation, child care, alternative accommodation, reimbursements for daily expenses and the temporary care of the family home if required.
- Make the notification in person, not by telephone or through an intermediary.
- Provide the relatives with as much information as possible. Present only the facts; do not speculate.
- Do not discuss personal views of liability or fault.
- Be prepared to listen to what people are saying. Allow the next of kin to vent their emotions.
- Attempt to support and reunite families as quickly as possible.
- Offer assistance; document key issues and concerns.
- Document the details of anyone who appears to be having trouble coping with the incident so that he / she can be given prompt support.
- Do not leave the next of kin alone.
- Offer to contact a neighbour, friend, relative, minister, doctor or counsellor.
- Leave your name and telephone number with family members

4.8 Security Incidents

4.8.1 General Security Response Actions

To activate a response to a security incident refer to the Security Threat Response Plan (STRP) Standard or Security Procedures & Security Plans.

Security Procedures and Plans listed below provide detailed response measures. Standards, Procedures & Plans are available on the Emergency Response and Security MyPlains page: [Security Management \(sharepoint.com\)](#).

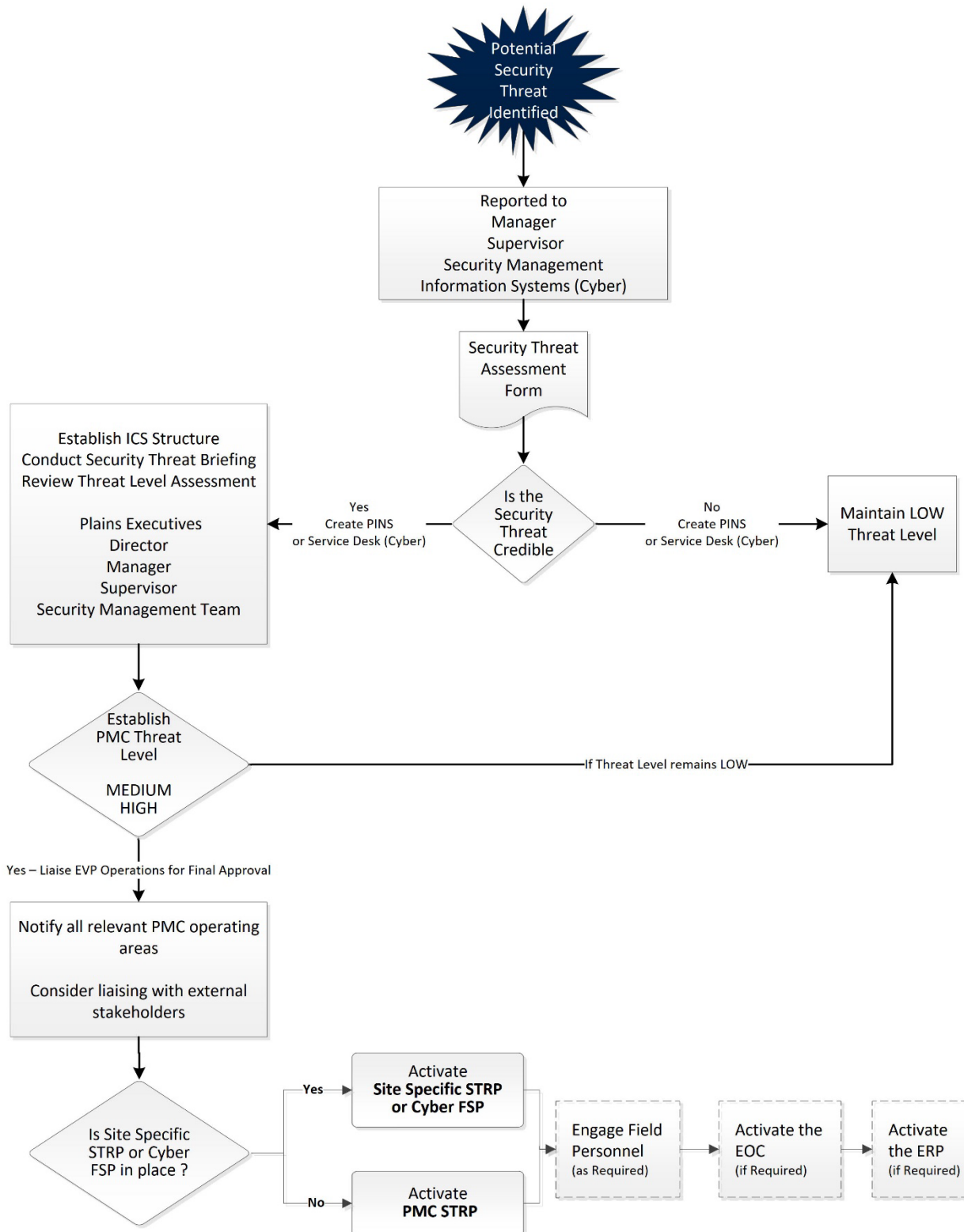
Security Procedures & Security Plans

- Bomb Threat Procedure
- Suspicious Activities Procedure
- Suspicious Package Procedure
- Civil Disturbance Procedure
- Terrorism Procedure
- Theft Procedure
- Unauthorized Entry Procedure
- Vandalism Procedure
- Workplace Violence Procedure
- Security Incident Procedure
- Control System – IT Attack Procedure
- Cyber Security Incident – Functional Support Plan
- Site Specific Security Threat Response Plans

Initial Actions

- Review Figure 1: STRP Activation process map below or in the STRP Standard
- Begin documenting on the Security Threat Assessment Form (Refer to 8.1 in Security Threat Response Plan Standard) and on the **ICS 201** Incident Briefing Form (*Refer to Section 6: Forms in ERP*)
 - Record initial incident details (Type of Incident, location, personnel, communications, response details, etc.)
 - Record initial response objectives and strategies to achieve incident priorities

STRP Standard – Figure 1: STRP Activation



Note: Activate countermeasures as per threat levels

4.9 Dams (Brine Ponds)

4.9.1 Potential and Imminent Emergencies

Potential Flood Emergency

When an abnormal condition is observed at the brine ponds or the brine ponds performs abnormally and, without swift and effective intervention, the condition could deteriorate and lead to brine ponds breach.

Imminent Flood Emergency

When the brine ponds have failed, or there is a severe abnormal condition that has a significant probability of leading to a brine ponds breach.

Drawdown procedures:

As required, in a potential or imminent flooding situation, begin drawdown operations of the pond level in a controlled manner by:

Activating the appropriate discharge pumps for the control structure affected, as required:

- If water is being transferred to an injection well or back to the cavern, notify the applicable personnel of the transfer.
- If transfer is initiated to another pond, monitor the level of that pond.
- Operate pump and discharge line
- Monitor pump and discharge lines for proper operation
- Continue frequent monitoring of structures, embankments and water levels for unusual or changed conditions.
- Restrict access along roads threatened by a potential flood emergency.

A Brine Pond Breach or potential Brine Pond Breach at a site may present the following hazards:

4.9.2 Potential Abnormal Conditions

Water Levels Above Normal High Operating Level

In case of high inflows due to a condition that could cause brine pond levels to rise higher than the normal maximum operating level, the following procedures shall be followed:

- Initiate drawdown procedures
- Inspect the brine pond toe and abutments of the brine pond for any new seeps, an abnormal increase in quantities of seepage, or any indication of muddy/silty/cloudy flow.
- Inspect the dykes for signs of slope instability, such as slumps, cracking, settlement and any new deformity or misalignment, however unlikely
- Continue frequent monitoring of structures, embankments and water levels for unusual or changed conditions.
- Restrict access along roads threatened by a potential flood emergency.
- Put resources (personnel and heavy equipment) on standby or mobilize resources or and equipment to the site, to repair damages

Slumping or Cracking of Brine Ponds

In case of slumping or cracking, the following shall be determined and/or conducted:

- Location of the slumping or cracking.
- Size and severity of affected area(s) in height, width and depth.
- Estimated leakage discharge (clear or muddy/silty/cloudy) and reservoir and elevations.
- Report findings, or threats of imminent flood
- Whether the brine pond needs to be drawn down with injection pumps.
- Whether to undertake shelter-in-place, a site or an EPZ evacuation.
- Put support services (personnel and heavy equipment) on standby or mobilize resources to repair damages in the pond embankment, as required.
- Continue frequent monitoring of structures, embankments and water levels for unusual or changed conditions. Implement appropriate additional response actions as necessary.
- Restrict access along roads threatened by a potential flood emergency.

Failure of Operating Equipment

In case of failure of operating equipment at the water control structure, the following shall be determined and/or conducted:

- Probable cause of failure, durations and effects on water control structure operation.
- Whether immediate assistance is required to remedy the problem.
- Whether temporary replacement or temporary alternatives are available.
- Report findings, including imminent deteriorating conditions, and assess the potential impacts of the situation on site operations and all stakeholders (public and private).
- Determine whether the brine pond needs to be drawn down with injection pumps.
- Decide whether to undertake shelter-in-place, a site or an EPZ evacuation.
- Activate brine pond pumping equipment, or if that has failed, alternate pumping equipment.
- Continue frequent monitoring of structures, embankments and water levels for unusual or changed conditions. Implement appropriate additional response actions as necessary.
- Restrict access along roads threatened by a potential flood emergency.

Springs, Seeps or Soft Areas

In the event of the development of new springs, seeps or soft areas, or any changes in the condition of existing areas, the following shall be determined and/or conducted:

- Location of the spring, seep or soft spot.
- Size of affected area.
- Estimated leakage discharge rate.
- Nature of the discharge (whether clear or muddy/silty/cloudy water).
- Brine pond elevation.
- Report findings and assess the potential impacts of the situation on site operations and all stakeholders.

In the event of rapid increase or muddy/silty/cloudy appearance in seepage, the following shall be done immediately to stabilize the berm:

- Notify area leadership especially in the event of imminent deteriorating conditions.
- Cover the areas with filter fabric.
- Ballast filter fabric with a thick layer of gravel or free draining material.
- Consult with additional technical experts, as required, to evaluate and stabilize the berm.
- Decide whether to begin drawing down the pond level in a controlled manner, as required.
- Put support services and/or resources (personnel and heavy equipment) on standby or mobilize resources or and equipment to the site, to repair damages in the pond embankment, as required.
- Continue frequent monitoring of structures, embankments and water levels for unusual or changed conditions. Implement appropriate additional response actions as necessary, based on changing conditions.
- Consult with civil/dam consulting/engineering firm to develop next steps

Abnormal Instrumentation Readings

In the event of abnormal instrumentation readings, the following shall be determined and/or conducted:

- Interstitial space (between the pond liner and secondary containment) to get no levels, unless it's rained.
- Whether the pond level (pond level stick readings) has changed significantly.
- Ensure a visual inspection the brine pond levels has occurred.
- Put support services and/or resources (personnel and heavy equipment) on standby or mobilize resources or and equipment to the site, to repair damages in the pond embankment, as required.
- Consult with civil/dam consulting/engineering firm to develop next steps

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SECTION 5: Communications, Media & Public Engagement

The development and implementation of timely, strategic and effective communications during an incident is critical to protect employees, responders, the public and Plains' reputation.

The Incident Commander (IC) is responsible for establishing communication among the Incident Management Team (IMT) in the Incident Commanded Post (ICP), and ensuring that communication is clear, effective and timely. The Incident Director (ID) is responsible for establishing communication amongst the Corporate Crisis Management Team (CCMT) in the Emergency Operations Centre (EOC), and ensuring that communication is clear, effective and timely. The IC connects with the ID to establish a line of communication between the two teams.

The Liaison Officer is responsible for communicating with government, regulatory and local agencies involved in the response, and obtains support from the Liaison Manager in the CCMT, as required.

The Operations Section Chief supervises tactical planning and Emergency Planning Zone (EPZ) activities to maximize public protection (including communication of EPZ information to the directly affected members of the public) and, as required, obtains support from the Operations Manager in the CCMT.

Plains supplies the communications systems and equipment required to allow for communication between the ICP and the following response personnel and operation centres:

- Evacuation, roadblock and air monitoring personnel
- Staging Area
- Reception Centre
- Plains EOC

Communications equipment will be dependent on the logistics associated with the incident, local cellular coverage and availability of land lines.

Public Information Officer (PIO) and Crisis Communications

The Public Information Officer (PIO) gathers incident information and implements Plains' communication strategy (internally and externally) to interface with media and vital stakeholders. The PIO also supports the communications efforts within the ICP, including the development of messages for positions such as the Liaison Officer and Public Protection Branch.

The IC assigns the PIO at the onset of the emergency. Ideally, the PIO position is filled by a member of the Crisis Communications Team or designated company spokesperson.

The PIO is assisted by the Public Information Manager (PIM) in the CCMT. The PIO and the PIM coordinate their activities to ensure that all stakeholders and Plains employees are informed about the incident using various tools and channels.

5.1 Crisis Communications Team Support

The PIO determines requirements for crisis communications support. This may include introducing additional crisis communications team members to assist with:

- Development and execution of communications activities and materials
- Public Protection measures, such as supporting roadblocks and reception centres
- Site tours for regulatory, government or media representatives
- Working with local agencies in the dissemination of public notifications
- Press conferences and media availabilities
- Community meetings and open houses
- Development and activation of various communication tools
- Activation of media monitoring and public sentiment

5.2 Information Collection Requirements

The goal of communications during a crisis is to protect those involved, which can be accomplished by governing the messages received by the public through various channels, including the media.

To gain and maintain control of the message, critical and factual information must be collected and provided to the PIO or PIM to be shared during an incident. The information in the charts in section 5.2.2 will be used to inform the appropriate individuals/agencies and to produce materials, including media holding statements, public protection branch scripts, evacuation or shelter-in-place notifications and reception centre fact sheets.

5.2.1 Information Collection Sources

Necessary information can be collected via documentation, tools and intelligence from the Planning Section and/or other responders in the ICP (or Virtual Incident Command Post). Relevant forms include:

- ICS 201 – Incident Briefing Form
- ICS 202 – Incident Objectives
- ICS 204 – Assignments List
- ICS 207 – Organizational Chart
- ICS 234 – Work Analysis Matrix
- ICS 232 – Resources at Risk
- Initial Response Checklist
- Incident Action Plan (IAP)
- Incident and emergency response maps

5.2.2 Information Collection Checklists

<input checked="" type="checkbox"/>	INCIDENT SPECIFICS		
<input type="checkbox"/>	Time of incident	<input type="checkbox"/>	Injuries
<input type="checkbox"/>	Location	<input type="checkbox"/>	Illnesses
<input type="checkbox"/>	Product type(s)	<input type="checkbox"/>	Fatalities
<input type="checkbox"/>	Asset/facility	<input type="checkbox"/>	Control/Stabilization
<input type="checkbox"/>	Cause	<input type="checkbox"/>	Product recovery
<input type="checkbox"/>	Quantities	<input type="checkbox"/>	Responders on scene
<input type="checkbox"/>	Affected area/EPZ	<input type="checkbox"/>	Dangerous hazards
<input checked="" type="checkbox"/>	PUBLIC PROTECTION ACTIONS COMPLETED		
<input type="checkbox"/>	Shelter-in-place	<input type="checkbox"/>	Notifications (RESPOND)
<input type="checkbox"/>	Evacuations	<input type="checkbox"/>	Reception Center
<input type="checkbox"/>	Rovers	<input type="checkbox"/>	Evacuation Center
<input type="checkbox"/>	Roadblocks	<input type="checkbox"/>	Air monitoring
<input type="checkbox"/>	Closures/restrictions	<input type="checkbox"/>	Water monitoring
<input type="checkbox"/>	Ignition sources	<input type="checkbox"/>	Noise abatement
<input checked="" type="checkbox"/>	STAKEHOLDER NOTIFICATIONS COMPLETED		
<input type="checkbox"/>	Indigenous Communities	<input type="checkbox"/>	Mutual Aid Groups
<input type="checkbox"/>	Landowners/residents within and outside EPZ	<input type="checkbox"/>	Hospitals/medical centers
<input type="checkbox"/>	Businesses	<input type="checkbox"/>	Critical service providers
<input type="checkbox"/>	Regulators	<input type="checkbox"/>	Industry
<input type="checkbox"/>	Agencies	<input type="checkbox"/>	Schools/childcare
<input type="checkbox"/>	Government (county, provincial, federal)	<input type="checkbox"/>	Industry Partners

5.3 Regulatory Requirements

The PIO, in conjunction with the PIM and/or Crisis Communications Team, is required to develop a detailed communications plan which may be shared with regulators to outline how and when we will communicate information with affected stakeholders.

The PIO may also be required to engage with the communications teams of regulators, cooperating agencies and/or in a Unified Command to coordinate activities, messages and approvals.

Additionally, detailed communications protocols and plans for emergencies are outlined throughout the Emergency Response Plan.

- **Section 1: Initial Response** – Internal notifications, external notifications and maintaining communications.
- **Section 3: Responder Safety and Public Protection** – Notifications and maintaining communication with members of the public.
- **Section 8: Government Agencies and Local Authorities** – Identifying applicable government agencies and local authorities.
- **Section 9: Area Specific Information** – Contact information for internal personnel, government agencies, local authorities, support services and members of the public.

5.4 Approval Requirements

The PIO leads the development, approval process and distribution of all communications efforts related to the response. The IC has the authority to approve and request distribution of incident-related communications and can delegate this responsibility to the Deputy Incident Commander (DIC). Before any materials or information can be distributed publicly, approval from the IC/DIC is required, and should be approved by the appropriate/available executive and Plains' Legal Team. If in a Unified Command, approvals should be obtained through these Command Staff members or a related delegate.

Sensitive topics (guidelines provided in parentheses)

- **Cause of incident** (Do not speculate as to a cause, an investigation into root cause is required)
- **Volume of release** (Until a definitive number is known, stick with qualified statements and a volume range if needed)
- **Time to complete clean-up and return to service** (Avoid speculation and use appropriately qualified language)
- **Overall cost** (As with volumes, qualify as appropriate)
- **Market/customer impact** (Avoid speculation of market impact, line or facility outage or any mention of customer volumes, commitments or production)
- **Joint Venture assets and agreements** (Do not forget that some assets are joint ventures and an appropriate communications process will need to be followed)
- **Earnings impact from incident** (Do not speculate. Indicate that the company is focused on responding to the incident and will assess any impact to earnings at a later time)
- **Significant/material regulatory implications or actions** -- either directly from an incident or due to several incidents of a similar nature (Avoid speculation; work with regulators proactively)

5.5 Media Policy

The Media Policy applies to all employees, contractors and third-parties who represent Plains.

The policy is in place to:

- Prevent the improper use or disclosure of material, sensitive or confidential information pertaining to company operations and plans.
- Avoid exposing employees, contractors or third-parties to risk that could result from unapproved or inaccurate disclosure of company information via the media or public.

Outlined in the policy is a limited number of spokespeople who have been provided the proper training and granted permission to address the media with approved messages. All others must adhere to the policy and refer media to the Crisis Communications team.

5.6 Media & Public Interaction Guidelines

During an incident:

- Information moves faster
- Everyone has a voice and a camera
- Conversation is amplified
- Information “right now” trumps “right” information
- Emotion often outweighs fact

During an emergency, media and public access to the incident site is strictly prohibited, unless the PIO or an approved designate has received approval from the IC and it is safe to do so.

Depending on the nature and location of an incident, media representatives, social media bloggers, citizen journalists or activists may attempt to contact or approach Plains representatives, including Public Protection Branch members, local response teams, Calgary office personnel, etc.

If approached, direct all inquiries to the PIO at [REDACTED] or [REDACTED]. Media cards for response personnel with contact information will be distributed by the PIO.

If approached by the media or the public:

- Always act polite and professional. Remember, when you are interacting with external audiences, you are representing Plains.
- State you are not the appropriate person to speak with and not a company spokesperson, and direct them to PIO – refer to the media card.
- Assume that the interaction is being recorded and you’re “on camera.”
- Be careful not to deny or confirm information or facts. Simply state that you are not the Public Information Officer and you will immediately redirect their inquiry.
- Never disclose any information about the names of those deceased or injured, or the extent of injuries.
- Be firm – people will press for information. It’s okay to repeat yourself.

- Never use the phrase "No comment."
- Document the individual's contact information and inform your supervisor and the PIO immediately.
- For media representatives, gather the information on the Media Inquiry Form (Section 6: Forms). Forward the Media Inquiry Form or any call back commitments to your supervisor, PIO and [REDACTED] as soon as possible.
- Do not share photos and information regarding the incident online or share sensitive or incident-related information such as pictures, emails or voicemails with family and friends.
- Remember that conversations can be overheard and/or eavesdropped by others, especially in public settings.

5.7 General Media & Public Statements

STATEMENT FOR MEDIA REPRESENTITIVES

I am not a company spokesperson. If you would like more information or to talk to a company representative, I can take your name and contact information and pass it along to our Media Relations team and they will get in touch with you.

You can also email your inquiry to [REDACTED] or call our media line at [REDACTED].

STATEMENT FOR MEMBERS OF THE PUBLIC

I'm not the best person to answer your questions. Our Community Response team is available to provide you with more information.

They can be reached at [REDACTED] or by calling [REDACTED].

5.8 Initial Holding Statements

An integral part of crisis response is the timely development of appropriate and effective communications which share reliable and accurate information. The initial holding statements below is one of the first communication tactics which may be used in an incident and should be completed by the PIO with support from the PIM. The initial holding statement will be reviewed by required parties listed in section 5.3: Approval Requirements.

5.8.1 Pipeline / Facility Release Initial Holding Statement

Pipeline/Facility Release Initial Holding Statement
<p>At approximately _____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. on _____ (date), PLAINS experienced a _____ (type of) release at our _____ (pipeline / facility)</p> <p><input type="checkbox"/> east <input type="checkbox"/> west <input type="checkbox"/> north <input type="checkbox"/> south of _____ (city/town/municipality).</p> <p>We have initiated our emergency response plan, and the (regulator) has been notified. Our staff is working with local first responders on site. Our current priorities are to ensure the safety of all involved, protection of the environment and stabilization of the incident.</p> <p>The cause of the incident is not yet known. We will provide additional updates as information becomes available.</p> <p>If you have a media inquiry, please contact [REDACTED] or call our media line at [REDACTED].</p> <p style="text-align: right;">Approved by Incident Commander: _____</p> <p style="text-align: right;">Date: _____</p> <p style="text-align: right;">Time: _____</p>

5.8.2 Non-Spill Initial Holding Statement

Non-Spill Initial Holding Statement
<p>At approximately _____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m. on _____ (date), a _____ (type of incident) occurred/was reported at PLAINS _____ (pipeline / facility) <input type="checkbox"/> east <input type="checkbox"/> west <input type="checkbox"/> north <input type="checkbox"/> south of _____ (city/ town/municipality).</p> <p>We have initiated our emergency response plan, and the (regulator) has been notified. Our staff is working with local first responders on site. Our current priorities are to ensure the safety of all involved, protection of the environment and stabilization of the incident.</p> <p>The cause of the incident is not yet known. We will provide additional updates as information becomes available.</p> <p>If you have a media inquiry, please contact [REDACTED] or call our media line at [REDACTED].</p> <p style="text-align: right;">Approved by Incident Commander: _____</p> <p style="text-align: right;">Date: _____</p> <p style="text-align: right;">Time: _____</p>

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SECTION 6: Forms

6.1	Form Index.....	6-1
6.2	Government First Call Communication Form.....	6-3
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	<i>AER Release Reporting Form</i>	
	<i>Security Threat Assessment Form</i>	
	<i>ICS Forms</i>	
	<i>Public Protection Forms</i>	
	<i>WCSS Ice Safety Plan</i>	

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SECTION 6: Forms

6.1 Form Index

Form	Description
Government First Call Communication Form	
Executive Update Form	
AER Release Reporting Form	
Security Threat Assessment Form	
ICS Forms	
Incident Action Plan (IAP) Cover Sheet	
ICS 201	Incident Briefing
ICS 202	Incident Objectives
ICS 203	Organization Assignment List
ICS 204	Assignment List
ICS 204a	Assignment List Attach
ICS 205	Incident Radio Communication Plan
ICS 205a	Communications List
ICS 206	Medical Plan
ICS 207 (IMT)	IMT Organizational Chart
ICS 207 (CCMT)	CCMT Organizational Chart
ICS 209	Incident Status Summary
ICS 210	Status Change
ICS 211e	Check-in List (Equipment)
ICS 211p	Check-in List (Personnel)
ICS 213	General Message
ICS 214	Unit Log
ICS 214a	Individual Log
ICS 215	Operational Planning Worksheet
ICS 215a	IAP Safety Analysis
ICS 220	Air Operations Summary
ICS 221	Demobilization Check Out
ICS 230	Daily Meeting Schedule
ICS 231	Meeting Summary
ICS 232	Resources at Risk Summary
ICS 233	Incident Open Action Tracker
ICS 234	Work Analysis Matrix
ICS 234 Example	Work Analysis Matrix Example
Public Protection Forms	
Air Monitoring Form	
Resident Notification Form	
Resident Registration Form	
Roadblock Form	
Media Inquiry Form	
WCSS	
WCSS Ice Safety Plan	

NOTE: For additional employee guidance and tools for initial response activities, please refer to the Plains Initial Response Guidebook.

(For copies please request through [REDACTED])

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6.2 Government First Call Communication Form

PMC has adapted the Alberta Energy Regulator (AER) First Call Communication Form to create the Government First Call Communication form. This is to be utilized by PMC personnel for the collection of essential incident details in all operating areas.

General Incident Information		
Regulator contact:	Agency:	Field centre:
Licensee:	Caller:	Phone:
E-mail address for release report:		
License #:	Pipeline line #:	Approval #:
Incident location: ___/___/___/___ W ___M		
Emergency level:		
Serious event? <input type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, what kind of serious event? <input type="checkbox"/> Blowout <input type="checkbox"/> Explosion <input type="checkbox"/> Fire <input type="checkbox"/> Other control loss <input type="checkbox"/> Fracking <input type="checkbox"/> Casing failure		
Land type (jurisdiction): <input type="checkbox"/> Freehold <input type="checkbox"/> First Nations <input type="checkbox"/> Métis <input type="checkbox"/> CFB <input type="checkbox"/> Crown – Disposition #:		
Agencies notified:		Date:
FIRST duty office (DO) contacted: <input type="checkbox"/> Yes <input type="checkbox"/> 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?			

<input type="checkbox"/> Reminded licensee to update the Regulator immediately if release volumes or area changes from what was originally reported		
<input type="checkbox"/> Asked for the immediate submission of photos of the entire spill site to the Regulator 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? <input type="checkbox"/> Yes <input type="checkbox"/> No (pipeline right-of-way is off lease)		
If yes, was the landowner notified? <input type="checkbox"/> Yes <input type="checkbox"/> No Name of landowner/agency:		
Release within disposition boundary? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Outside disposition – was leaseholder notified? <input type="checkbox"/> Yes <input type="checkbox"/> No Name of leaseholder:		
If outside disposition, reminded licensee that they will need a TFA.		
Actual incident H ₂ S concentration (if applicable): % / ppm / mol/kmol		
Nearest town:	Distance and direction to town:	
Environment affected: <input type="checkbox"/> Air <input type="checkbox"/> Land <input type="checkbox"/> Water		
Distance of release to the nearest water body, watercourse, or waterway:		
How was this distance determined?		
Wildlife/waterfowl/livestock affected: <input type="checkbox"/> None <input type="checkbox"/> Habitat affected <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, indicate if they were <input type="checkbox"/> Notified <input type="checkbox"/> instructed to shelter-in-place <input type="checkbox"/> advised to evacuate		

Notes/description:	
Media Interest? <input type="checkbox"/> None <input type="checkbox"/> Local <input type="checkbox"/> Regional <input type="checkbox"/> National	
Damage to public property? <input type="checkbox"/> Minor/no damage <input type="checkbox"/> Substantial (home covered in oil) <input type="checkbox"/> Extensive (home destroyed)	
Pipeline Specific	
Hit? <input type="checkbox"/> Yes <input type="checkbox"/> No	Line #: _____
Normal operating pressure: _____ kPa	Maximum operating pressure: _____ kPa
Is the pipeline shut in, depressured, and isolated? <input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, date & time: _____	
What is the total volume of liquid in the pipeline? _____	
Are there isolation valves? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, have they been activated? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Are there any other pipelines that tie into the failed line? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, have they been shut in/isolated? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Reminded the company to contact the Regulator before excavating the pipeline.	
<input type="checkbox"/> Reminded, advised, or directed the company that the pipeline is not to be returned to service without the Regulators permission.	
Right-of-way (ROW)	
<input type="checkbox"/> 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.)? _____ _____	
<input type="checkbox"/> 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.)? _____ _____	

Canada Energy Regulator Event Reporting Form can be found at:

<https://apps.cer-rec.gc.ca/ERS/Contact/Edit>

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6.3 Executive Update Form

1. Incident Name	2. Operational Period (Date/Time) From: _____ To: _____	EXECUTIVE UPDATE
3. Operations:		
4. Environmental		
5. Planning		
6. Other		
7. Prepared by:		Date/Time
EXECUTIVE UPDATE FORM		

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Release Report



Initial verbal notification of the release to the AER is required prior to completing this release report.

General Information	
AER FIS incident no.:	EDGE reference no.:
Date AER notified:	Time: <input type="checkbox"/> p.m. <input type="checkbox"/> a.m. AER contact:
Type of report: Click here for list	Projected date for final report:
Incident date:	Time: <input type="checkbox"/> p.m. <input type="checkbox"/> a.m. Incident location: W
Licensee/Company name :	
Licence no.:	Public lands disposition no.: Click here for list
EPEA approval no.:	Scheme/Permit approval no.: Other AER approval no.:
Form completed by:	Phone number:

Release Volume Details					
If volumes change from what was initially reported, then verbal notification to the AER is required.					
Released Substance*	Volume released	Free Fluids recovered	Shipped to (waste receiver)*	Licence/ approval no.*	Location
	m ³	m ³	Click here for list		W
	m ³	m ³	Click here for list		W
	m ³	m ³	Click here for list		W
Gas	10 ³ m ³				
Release rate:	Duration of release:				
* If the released substance is "Emulsion" the crude oil, produced water, and gas must all be reported separately above.					
* Refer to ST107 for the list of AER-approved oilfield waste management (WM) facilities.					

Waste Recovery Volume Details				
Waste substance	Volume recovered	Shipped to (waste receiver)*	Licence/ approval no.*	Location
Excavated soil/solids removed	m ³	Click here for list		W
	m ³	Click here for list		W
Contaminated surface water and/or snow removed	m ³	Click here for list		W
	m ³	Click here for list		W
Washwater and/or freshwater used	m ³	Click here for list		W
	m ³	Click here for list		W
Vegetation/crop bagged and/or removed	m ³	Click here for list		W
	m ³	Click here for list		W
* Refer to ST107 for the list of AER-approved oilfield waste management (WM) facilities.				
Contaminated soils storage: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> On site <input type="checkbox"/> Off site – If off site, enter location: W				
On-site waste treatment: <input type="checkbox"/> Yes <input type="checkbox"/> No Waste Treatment Description:				

Release Containment Details

Within well/facility lease boundary — Contained to working surface of lease boundary: Yes No

Outside well/facility lease boundary

Release contained by berm: Yes No Release contained by liner: Yes No Liner type (*Directive 055*): [Click here for list](#)

Release onto land/soil: Yes No Surface soil type: [Click here for list](#) Subsurface soil type: [Click here for list](#)

Release Site Details

Land jurisdiction type: [Click here for list](#) Environment affected: [Click here for list](#) Area affected: m²

Within public lands disposition boundary Outside public lands disposition boundary – TFA number:

Distance to closest water body: m Distance to nearest town: km Name of nearest town:

Distance to closest water well: m Distance to nearest permanent dwelling: km

Release Impacts Details

Incident/release H₂S concentration: Unit of measurement: % ppm mol/kmol

Wildlife/livestock affected: [Click here for list](#) Equipment loss: [Click here for list](#)

Emergency response plan (ERP) activated: Yes No

Public affected Public evacuation Number evacuated:

Landowner notified* Leaseholder notified*

WH&S notified* Number of injuries: Number of fatalities:

* [Provide details in Additional Notifications box.](#)

Pipeline Details (fill in for AER-licensed-pipeline incident)

[Pipeline is not to be returned to service without permission from the AER. See \[www.aer.ca\]\(http://www.aer.ca\) for definitions for incident type and cause.](#)

Incident type: [Click here for list](#) Incident cause: [Click here for list](#)

Licence number: Line number: Installation number (if applicable):

Start location: W End location: W ABSA registration number (if applicable):

Associated facility location: W Associated facility licence number:

Test failure Retest segment Pipeline repair pretested Cathodic protection

Type of external coating: Corrosion mitigation/monitoring program:

Normal operating pressure: kPa Maximum operating pressure kPa

Date line shut in: Pipeline returned to service: No Yes Date:

Clean-up/Remediation Details

[All releases must be remediated or managed in a matter satisfactory to the AER.](#)

Clean-up status: [Click here for list](#) **Final cleanup/remediation completion date:**

In-situ remediation implemented

Remediation guidelines used (choose all applicable):

Tier 1 Tier 2 SST SCARG CCME Exposure control

Method of subsurface delineation: Confirmatory samples taken: Number of samples:

Remediation certificate applied for: Yes No

Environmental contractor: Phone number:

Additional Incident Notification Details			
Name of agency/landowner	Person notified / reference no.	Phone number	Date

Incident Details
<p>Submit photos of the incident and cleanup/remediation to the AER. Fill in all text boxes below:</p> <p>Detailed description of circumstances leading up to the release:</p> <p>How release was identified:</p> <p>Steps/procedures taken to minimize, control, or stop release:</p> <p>Steps taken to contain release:</p> <p>If release was on lease steps taken to ensure no migration off lease (including subsurface migration):</p> <p>Description of how release volume(s) was determined and verified (include any calculations used):</p> <p>How the affected area was determined (include any calculations used):</p> <p>Description of environmental impact:</p> <p>Clean-up operation details:</p> <p>Remediation operation details:</p> <p>Release cause: Click here for list</p> <p>Description of root cause:</p> <p>Steps/procedures taken to prevent similar future releases:</p> <p>Additional comments:</p>

Complete all areas (as applicable), with information that is known to be factual. Please do not add any information that has not been verified.

ASSESSMENT FORM COMPLETED BY			
Name: _____	Contact #: _____		
Title: _____	Email: _____		
Date: _____	Time: _____		
OTHERS INCLUDED IN THE ASSESSMENT			
Name: _____	Position & Business Unit: _____		
THREAT REPORTED BY THE FOLLOWING SOURCE			
<input type="checkbox"/> Employee <input type="checkbox"/> Public <input type="checkbox"/> Government Agency <input type="checkbox"/> Police <input type="checkbox"/> Other (describe): _____			
Date: _____	Name: _____		
Contact #: _____	Title: _____		
Time: _____	Email: _____		
Method of Reporting: _____	Business Unit: _____		
TYPE OF THREAT - PHYSICAL			
<input type="checkbox"/> Physical Threat <input type="checkbox"/> ICS/SCADA <input type="checkbox"/> Civil Disturbance <input type="checkbox"/> Mischief <input type="checkbox"/> Cyber <input type="checkbox"/> Verbal Threat <input type="checkbox"/> Suspicious Mail/Packages <input type="checkbox"/> Vandalism <input type="checkbox"/> Interference (blocking access to right-of-way ROW) <input type="checkbox"/> Other (describe): _____			
TYPE OF THREAT - CYBER			
<input type="checkbox"/> Malware <input type="checkbox"/> ICS/SCADA <input type="checkbox"/> Social Engineering <input type="checkbox"/> Ransomware <input type="checkbox"/> DOS <input type="checkbox"/> Breach <input type="checkbox"/> Cloud Related <input type="checkbox"/> Fraud <input type="checkbox"/> Malicious Insider <input type="checkbox"/> Identity Theft <input type="checkbox"/> Weather Related <input type="checkbox"/> Personally Identifiable Information (PII) <input type="checkbox"/> Email Compromise <input type="checkbox"/> Other (describe): _____			
ADVERSARY: PERSON OR GROUP			
<input type="checkbox"/> Resident/Occupant <input type="checkbox"/> Landowner <input type="checkbox"/> Activist <input type="checkbox"/> First Nations <input type="checkbox"/> Employee <input type="checkbox"/> Protestor <input type="checkbox"/> Public <input type="checkbox"/> Other (describe): _____			
Name: _____	Contact #: _____		
Physical Address: _____	Website/URL: _____		
Known Vehicles: _____	Email: _____		
Age: _____			
THREAT CIRCUMSTANCES			
<input type="checkbox"/> Against Employee <input type="checkbox"/> Against Company <input type="checkbox"/> Against Contractor <input type="checkbox"/> Against Industry <input type="checkbox"/> Unconfirmed			
Describe circumstances/what occurred/what location: _____			
Is there history of the same person or group making a threat? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, describe: _____			
Date: _____	Place of Occurrence: _____		
Are there witnesses to the occurrence? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If yes, Name of witnesses: _____			
<input type="checkbox"/> Yes, witness statements have been completed and provided			
<input type="checkbox"/> No, witness statements have not been completed or provided			
The threat was direct and clearly understood. Explain: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
The threat was indirect/Vague/Implied. Explain: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
The threat is expected to occur in the future. Explain: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
IMPACTED ASSET(S) & USER(S)			
<u>Asset</u>	<u>Contact Name</u>	<u>Phone</u>	<u>Email</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
REPORTED TO POLICE			
Date: _____	File #: _____	Investigator Name: _____	
Police Agency: _____	Contact #: _____	Email: _____	
Is the matter under investigation? Explain: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No			
Are charges laid? Explain: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No			
Have the Police commented? Explain: _____ <input type="checkbox"/> Yes <input type="checkbox"/> No			
ASSET HISTORY			
Has the asset/user recently been victim of a physical and/or cyber-security incident? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
Has the asset/user been victim of a physical and/or cyber-security incident in the past? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
RECENT EVENTS			
Are there any recent landowner issues and/or concerns? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
Are there any recent termination issues and/or concerns? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
Are there any recent employee performance issues and/or concerns? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
Are there any recent issues with the general public? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			
Are there any recent contractor issues and/or concerns? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown			

ADVERSARIES		
Are physical and/or cyber-security adversaries present and active within the community, area or region? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
LANDOWNER (IF APPLICABLE)		
Has the landowner been apprised of right-of-entry information? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Has the right-of-entry (ROE) been served and explained? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Where is the person's residence in relation to the ROW? _____		
INDUSTRY THREATS		
Has another operator within the same industry and/or region received physical and/or cyber-security related threats? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Has another operator within the same industry and/or region recently been victim of a physical and/or cyber-security threat? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Does a current threat that is directed at the company exist? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
CREDIBILITY		
Does the threat specifically identify a target? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Does the threat specify a time it is to be carried out? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Is it probable that the threat will be carried out? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
Threat is: <input type="checkbox"/> Not Credible <input type="checkbox"/> Unknown <input type="checkbox"/> Believed <input type="checkbox"/> Confirmed Comments: _____		
CAPABILITY		
Is there a degree of sophistication required for the adversary to commit a crime against the asset? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Is the person or group considered capable of carrying out a physical or cyber threat (e.g., fit/health, physically imposing; young/middle aged; or elderly; physical impediment; unhealthy; unfit etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No		
SUMMARY OF THREAT		
Summarize Circumstances: _____		
SECURITY THREAT ASSESSMENT		
CREDIBILITY	PROBABILITY	CONSEQUENCE
LOW (VALUE OF 1)		
■ A possible physical and/or cyber threat of harm to the company and/or to personnel has been made.	■ Threat is unlikely to be carried out.	■ Little or no impact on asset(s).
MEDIUM (VALUE OF 2)		
■ A probable physical and/or cyber threat of harm to the company and/or to personnel has been made.	■ Threat is likely to be carried out.	■ Impacts are felt, but not critical.
HIGH (VALUE OF 3)		
■ A confirmed physical and/or cyber threat of harm to the company and/or to personnel has been made.	■ Threat is likely to be carried out.	■ Critical impact(s) that could result in breach, damage, loss, and/or injury.
Credibility <input type="checkbox"/> + Probability <input type="checkbox"/> + Consequence <input type="checkbox"/> = <input style="width: 50px;" type="text"/> (LOW = 3 MEDIUM = 4-6 HIGH = 7-9) SECURITY THREAT LEVEL = <input style="width: 50px;" type="text"/>		
SECURITY THREAT LEVEL CLASSIFICATION		
<input type="checkbox"/> Low Level Threat → 1-3 (Standard Operating Procedures) No Security Plan Required (Standard Operating Procedures in place) Threat deemed LOW for an illegal and/or violent act (including cyber) towards Plains assets, operations and/or other regional industry operators, or industry at large A LOW categorization of risk does not imply "no threat" but indicates the situation should or may continue to be monitored. All standard security countermeasures should remain in place.		
<input type="checkbox"/> Medium Level Threat → 4-6 (Possible Duration: Days, Weeks, Months) Activate Security Threat Response Plan Operational Security Countermeasures (Physical) and/or Information System(IS) Countermeasures (Cyber) Threat deemed to be MEDIUM for an illegal and/or violent act (including Cyber) towards Plains assets, operations and/or other regional industry operators, or industry at large. A MEDIUM categorization of risk means that there is an elevated threat for violence or illegal incident(s) and any security measures that are currently in position should remain, and further security measures should be considered as per organizational security countermeasures.		
<input type="checkbox"/> High Level Threat → 7-9 (Possible Duration: Days or Weeks) Activate Security Threat Response Plan Operational Security Countermeasures (Physical) and/or Information System(IS) Countermeasures (Cyber) Based on available information and intelligence, there appears to be a HIGH risk for an illegal and/or violent act (including Cyber) occurring towards Plains assets, operations and/or other regional industry operators, or industry at large. A HIGH categorization of risk means that Plains is at HIGH or imminent threat to experience a violent or illegal incident(s) and immediate intervention is required to prevent an act from occurring. Any security measures that are currently in position should remain, and enhanced security measures should be considered as per organizational countermeasures. Note: High-risk situations require the most intensive supervision and management strategies to be applied.		

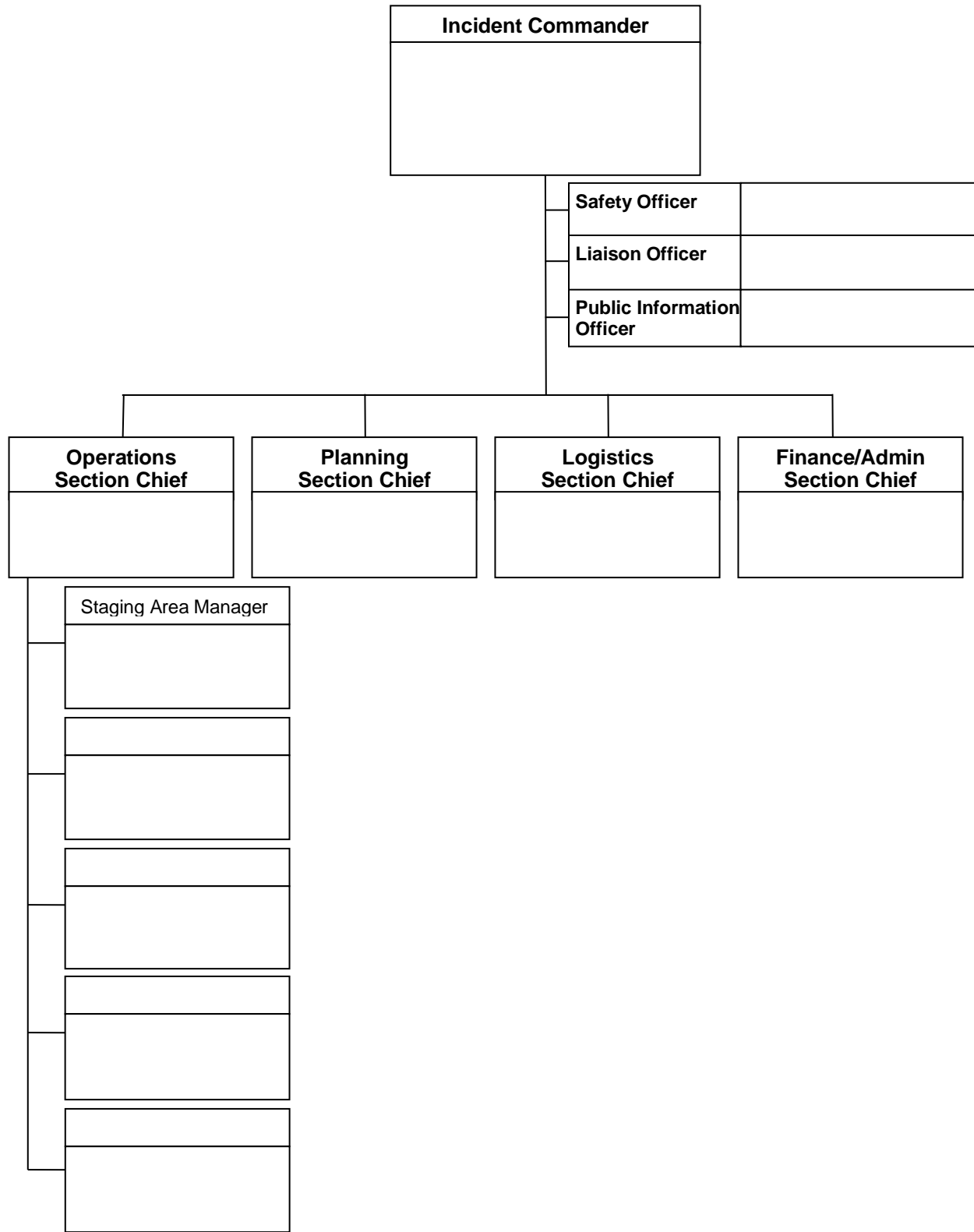
INCIDENT BRIEFING FORM (ICS 201)

1. Incident Name	2. Incident Number	3. Time of Incident Date: _____ Time: _____
4. Map/Sketch Include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment.		
5. Situation Summary and Health and Safety Recognize potential incident health and safety hazards and develop necessary measures to protect responders from those hazards (remove hazard, personal protective equipment, warn people of the hazard).		
6. Prepared By Name: _____	Position/Title: _____	Signature: _____
ICS 201, Page 1		

INCIDENT BRIEFING FORM (ICS 201)

1. Incident Name	2. Incident Number	3. Time of Incident Date: _____ Time: _____
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10. Current Organization



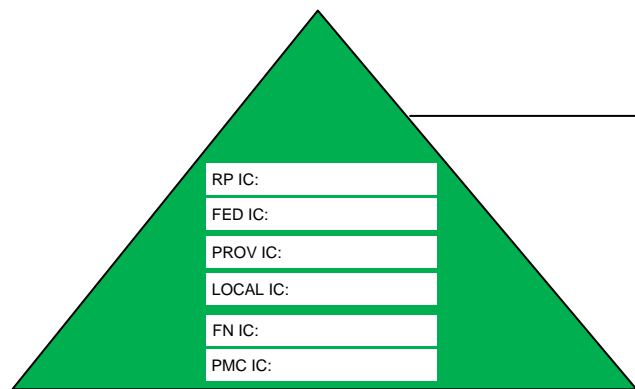
6. Prepared by: Name: _____	Position/Title: _____	Signature: _____
------------------------------------	-----------------------	------------------

1. Incident Name	2. Operational Period (Date/Time) From: _____ To: _____	INCIDENT OBJECTIVES ICS 202-OS
3. Overall Incident Objective(s) <i>Life Safety</i> <i>Incident Stabilization</i> <i>Minimize Impacts</i>		
4. Objectives for specified Operational Period		
5. Safety Message for Specified Operational Period		
Approved Site Safety Plan Located at:		
6. Weather	See Attached Weather Sheet	
7. Tides/Currents	See Attached Tide/Current Data	
8. Time of Sunrise	Time of Sunset	
9. Attachments (mark "X" if attached)		
<input type="checkbox"/> Organization List (ICS 203-OS)	<input type="checkbox"/> Medical Plan (ICS 206-OS)	<input type="checkbox"/> Resource at Risk Summary (ICS 232-OS)
<input type="checkbox"/> Assignment List (ICS 204-OS)	<input type="checkbox"/> Incident Map(s)	<input type="checkbox"/> Incident Status Summary (ICS 209-OS)
<input type="checkbox"/> Communications List (ICS 205-OS)	<input type="checkbox"/> Traffic Plan	<input type="checkbox"/> _____
10. Prepared by: (Planning Section Chief)		Date/Time
INCIDENT OBJECTIVES		ICS 202-OS

1. Incident Name	2. Operational Period (Date/Time) From: _____ To: _____	ASSIGNMENT LIST ATTACHMENT	
3. Branch		4. Division/Group	
5. Strike Team/Task Force/Resource Identifier	6. Leader	7. Assignment Location	
8. Work Assignment Special Instructions (if any)			[Ops]
9. Special Equipment/Supplies Needed for Assignment (if any)			[Ops]
10. Special Environmental Considerations (if any)			[P.S.C.]
11. Special Site-Specific Safety Considerations (if any)			[S.O.]
Approved Site Safety Plan Located at:			
12. Other Attachments (as needed)			
<input type="checkbox"/> Map	<input type="checkbox"/> Shoreline Cleanup Assessment Team Report	<input type="checkbox"/> _____	
<input type="checkbox"/> Weather Forecast	<input type="checkbox"/> Tides	<input type="checkbox"/> _____	
13. Prepared by: (Resources Unit Leader)			
ASSIGNMENT LIST ATTACHMENT		June 2000	ICS 204a-OS

PMC INCIDENT MANAGEMENT TEAM (IMT) AT THE INCIDENT COMMAND POST (ICP) & FIELD EMERGENCY RESPONSE

NOTE: CHART IS CUSTOMIZED FOR EACH INCIDENT.



UNIFIED COMMAND

INCIDENT COMMANDER

DEPUTY INCIDENT COMMANDER

SAFETY OFFICER

LIAISON OFFICER

PUBLIC INFORMATION OFFICER

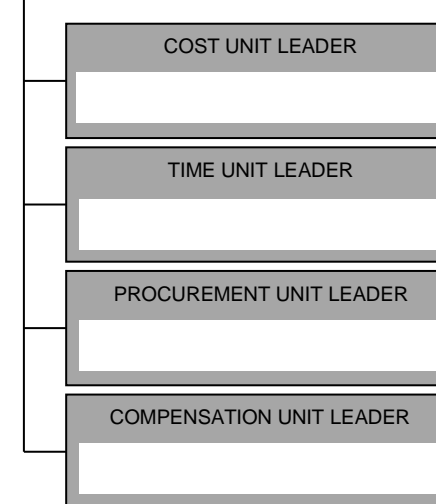
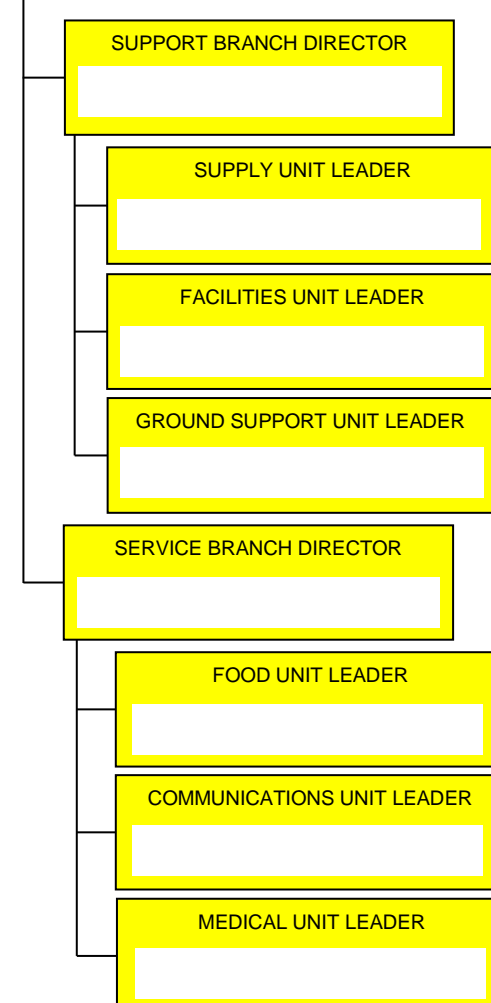
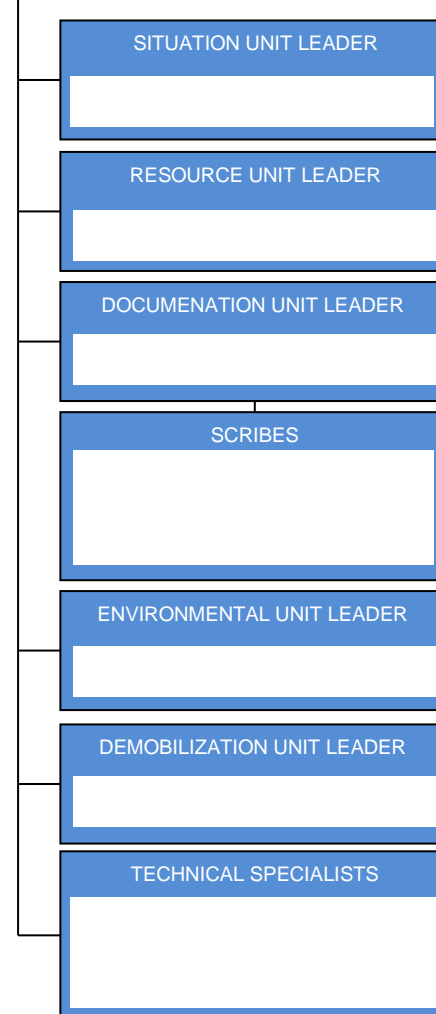
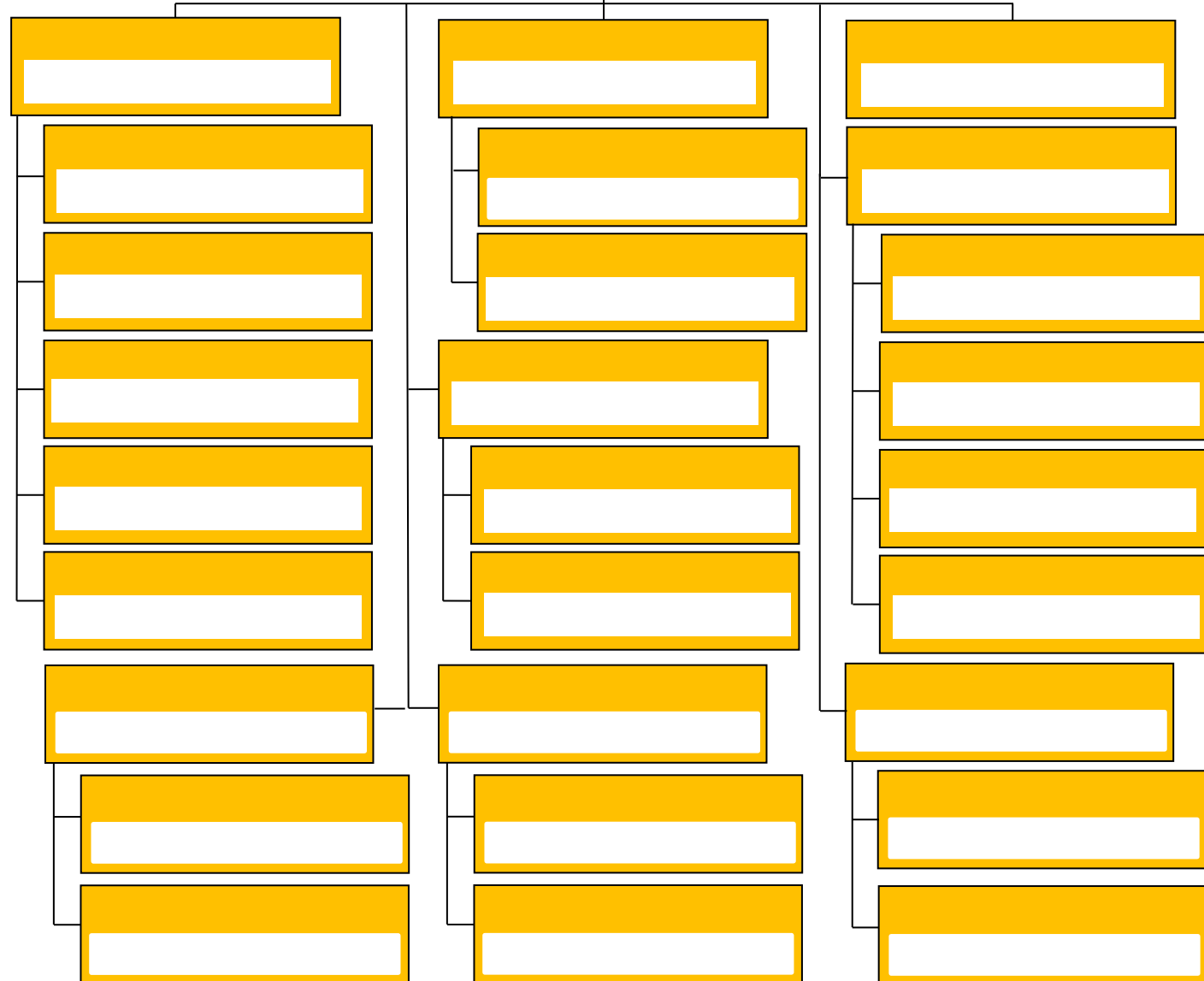
PMC CORPORATE CRISIS MANAGEMENT TEAM (CCMT)
AT THE CALGARY
EMERGENCY OPERATIONS CENTRE (EOC)

OPERATIONS SECTION CHIEF

PLANNING SECTION CHIEF

LOGISTICS SECTION CHIEF

FINANCE / ADMIN SECTION CHIEF



LEGEND
 RP IC = RESPONSIBLE PARTY INCIDENT COMMANDER
 FED IC = FEDERAL AUTHORITY INCIDENT COMMANDER
 PROV IC = PROVINCIAL AUTHORITY INCIDENT COMMANDER
 LOCAL IC = LOCAL AUTHORITY INCIDENT COMMANDER
 FN IC = FIRST NATIONS INCIDENT COMMANDER
 PMC IC = PLAINS MIDSTREAM CANADA INCIDENT COMMANDER

*Refer to Section 2: Roles and Responsibilities for positions that may be filled in an emergency, as required.

PMC CORPORATE CRISIS MANAGEMENT TEAM (CCMT) AT THE CALGARY EMERGENCY OPERATIONS CENTRE

NOTE: CHART IS CUSTOMIZED FOR EACH INCIDENT.

PMC INCIDENT MANAGEMENT TEAM (IMT)
AT THE INCIDENT COMMAND POST (ICP)

EXECUTIVE ADVISOR

INCIDENT DIRECTOR

DEPUTY INCIDENT DIRECTOR

SAFETY MANAGER

LIAISON MANAGER

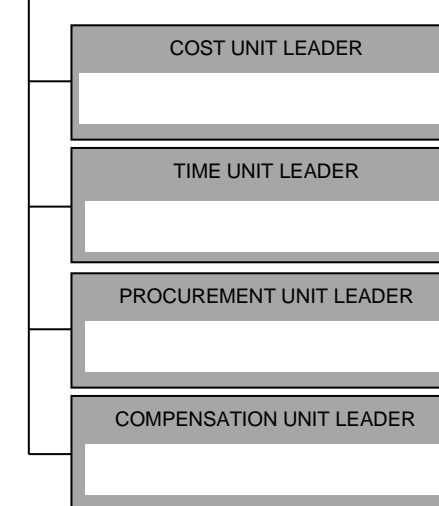
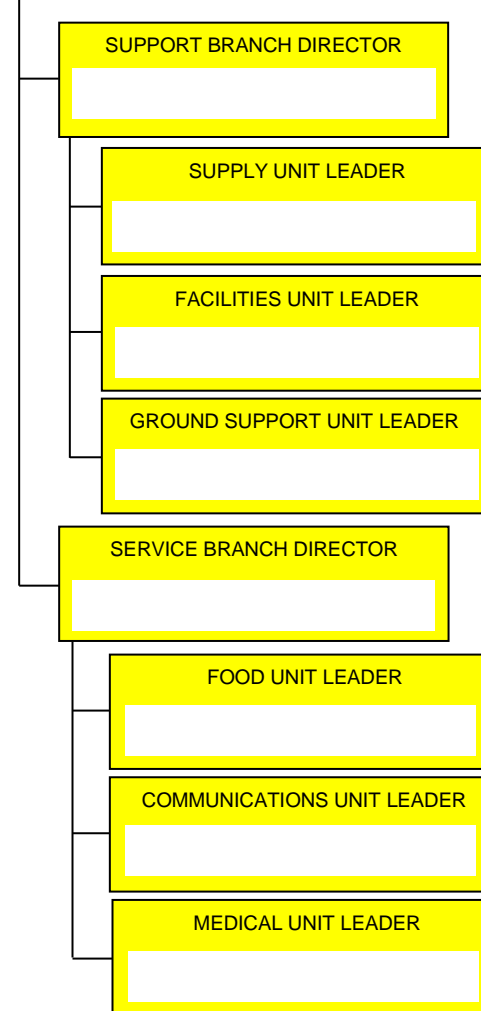
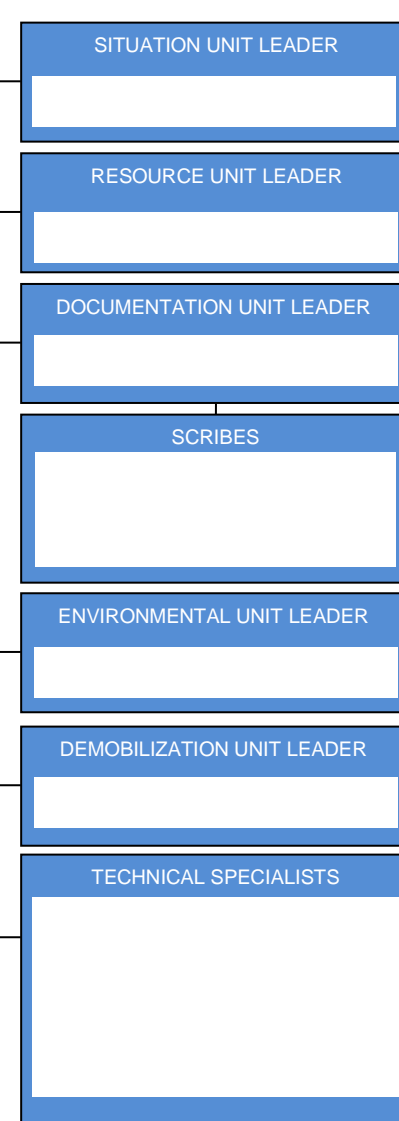
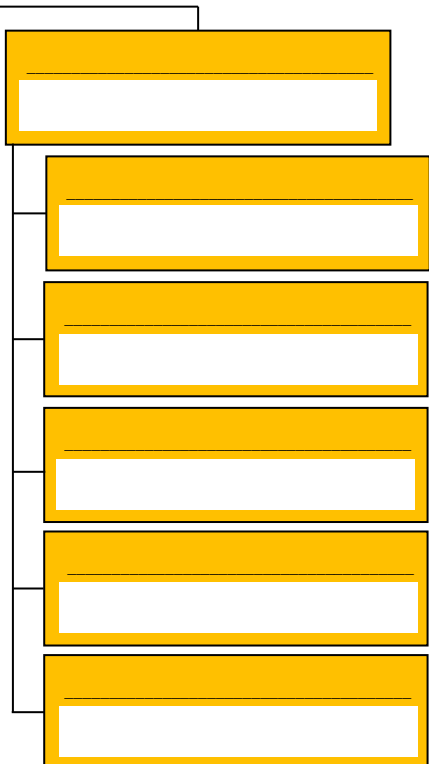
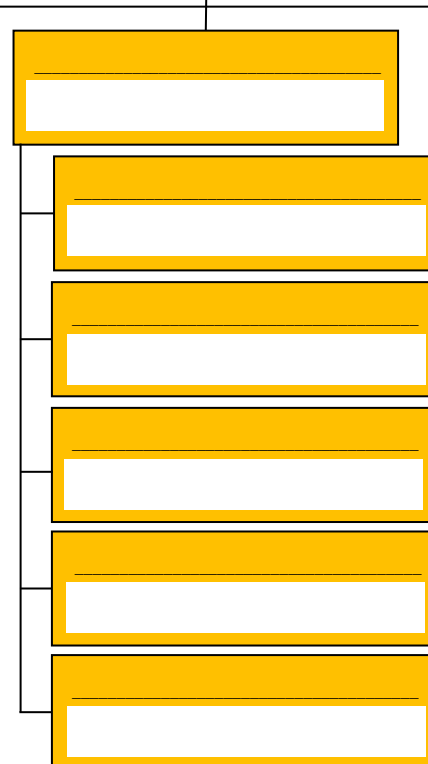
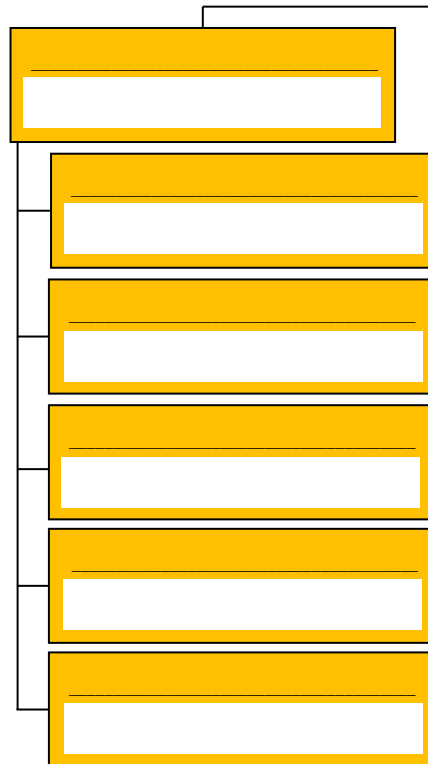
PUBLIC INFORMATION MANAGER

OPERATIONS MANAGER

PLANNING MANAGER

LOGISTICS MANAGER

FINANCE / ADMIN MANAGER



1. Incident Name	2. Operational Period (Date / Time) From: _____ To: _____	STATUS CHANGE ICS 210-OS
3. Personnel / Resource Name or I.D.		
4. New Status <input type="checkbox"/> Available / Staged <input type="checkbox"/> Assigned _____ <input type="checkbox"/> Out of Service		
5. FROM Location or Status	6. TO Location or Status	
7. Time of Location / Status Change		
8. Comments		
9. Prepared by:		Date / Time
10. Processed by: (Resource Unit)		Date / Time
STATUS CHANGE	June 2000	ICS 210-OS

1. Incident Name	2. Date and Time of Message	GENERAL MESSAGE ICS 213-OS
3. TO: ICS Position		
4. FROM: ICS Position		
5. Subject:		
6. Message		
8. Signature / Position (person replying)		Date / Time of reply
GENERAL MESSAGE		June 2000
		ICS 213-OS

General Message (ICS213)

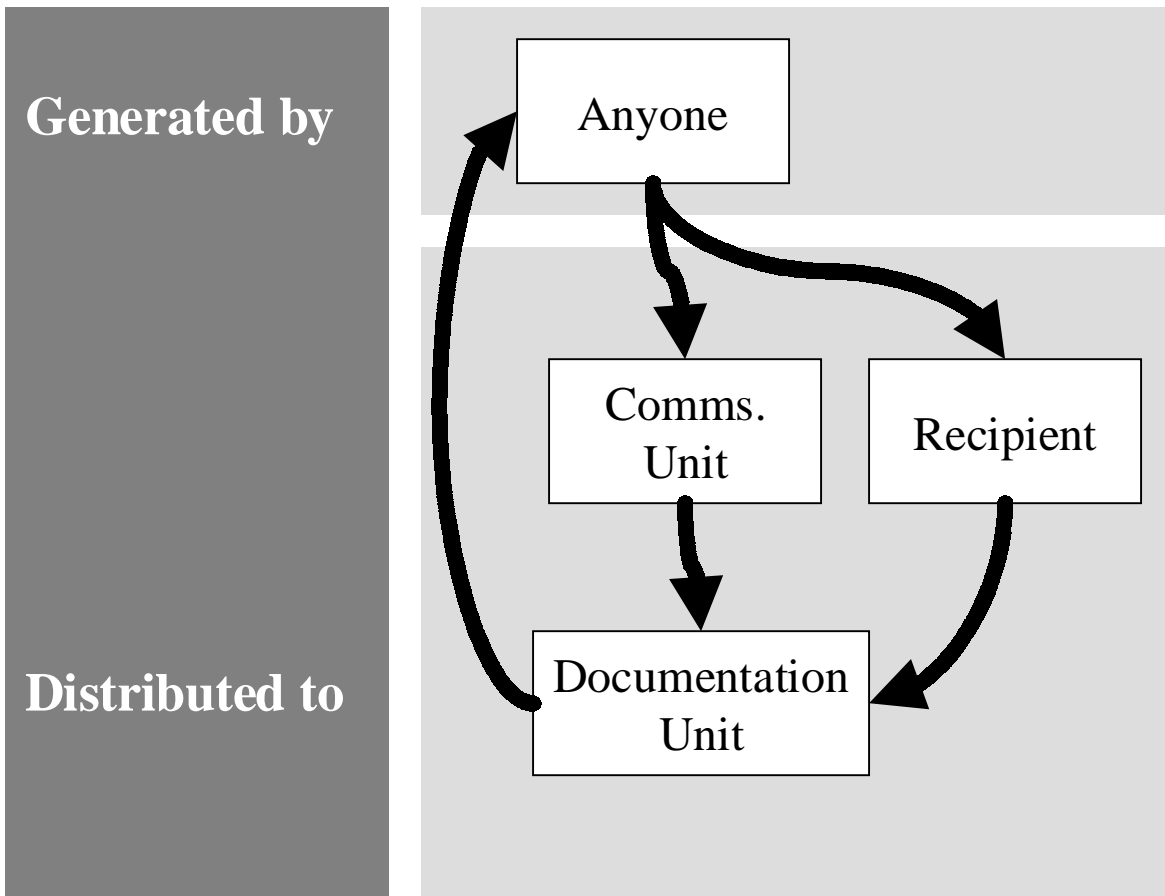
Purpose. The General Message is used by:

- Incident personnel to record incoming messages which cannot be orally transmitted to the intended recipients;
- Command Post and other incident personnel to transmit messages to the Incident Communications Center for transmission via radio or telephone to the addressee;
- Incident personnel to send any message or notification to incident personnel which requires a hard-copy delivery;
- Incident personnel to place resource orders.

Preparation. This form is prepared by any incident personnel needing to transmit a hard-copy message. The recipient should send a timely reply to the originator, as necessary.

Distribution. Upon completion, the General Message may be hand-carried to the addressee or to the incident Communications Center for transmission.

Originator retains a copy of the form. All completed original forms MUST be given to the Documentation Unit.



1. Incident Name		2. Operational Period (Date/Time) From: To:										OPERATIONAL PLANNING WORKSHEET ICS 215-OS						
3. Division/ Group or Location	4. Work Assignments	5. Resource/Equipment										9. "X" here if 204a Needed						
		Resource											6. Notes/Remarks	7. Reporting Location	8. Requested Arrival Time			
		Req.																
		Have																<input type="checkbox"/>
		Need																
		Req.																
		Have																<input type="checkbox"/>
		Need																
		Req.																
		Have																<input type="checkbox"/>
		Need																
		Req.																
		Have																<input type="checkbox"/>
		Need																
		Req.																
		Have																<input type="checkbox"/>
		Need																
10. Total Resources Required																		
11. Total Resources On Hand																		
12. Total Resources Needed																		
										13. Prepared by:								
										Date				Time				

1. Incident Name	2. Operational Period (Date / Time) From: _____ To: _____	AIR OPERATIONS SUMMARY ICS 220-OS
-------------------------	---	--

3. Distribution
 Fixed-Wing Bases _____
 Helibase _____

4. Personnel and Communications	5. Remarks (Spec. Instructions, Safety Notes, Hazards, Priorities)																								
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;"></td> <td style="width:20%; text-align: center;">Air Operations Director</td> <td style="width:20%; text-align: center;">Air / Air Frequency</td> <td style="width:30%; text-align: center;">Air / Ground Frequency</td> </tr> <tr> <td>Air Operations Director</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Air Tactical Supervisor</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Air Support Supervisor</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Helicopter Coordinator</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Fixed-Wing Coordinator</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table>		Air Operations Director	Air / Air Frequency	Air / Ground Frequency	Air Operations Director	_____	_____	_____	Air Tactical Supervisor	_____	_____	_____	Air Support Supervisor	_____	_____	_____	Helicopter Coordinator	_____	_____	_____	Fixed-Wing Coordinator	_____	_____	_____	
	Air Operations Director	Air / Air Frequency	Air / Ground Frequency																						
Air Operations Director	_____	_____	_____																						
Air Tactical Supervisor	_____	_____	_____																						
Air Support Supervisor	_____	_____	_____																						
Helicopter Coordinator	_____	_____	_____																						
Fixed-Wing Coordinator	_____	_____	_____																						

6. Location / Function	7. Assignment	8. Fixed-Wing		9. Helicopter		10. Time		11. Aircraft Assigned	12. Operating Base
		NO.	TYPE	NO.	TYPE	Available	Commence		

	13. TOTALS				
--	-------------------	--	--	--	--

14. Air Operation Support Equipment	15. Prepared by _____ Date / Time _____
--	---

1. Incident Name	2. Operational Period (Date / Time) From: _____ To: _____	DEMOB. CHECK-OUT ICS 221-OS
-------------------------	---	--

3. Unit / Personnel Released	4. Release Date / Time
-------------------------------------	-------------------------------

5. Unit / Personnel

You and your resources have been released, subject to signoff from the following:
(Demob. Unit Leader "X" appropriate box(es))

Logistics Section

Supply Unit _____

Communications Unit _____

Facilities Unit _____

Ground Unit _____

Planning Section

Documentation Unit _____

Finance / Admin. Section

Time Unit _____

Other

6. Remarks

7. Prepared by: _____	Date / Time _____
------------------------------	--------------------------

1. Incident Name		2. Operational Period (Date/Time) From: _____ To: _____		DAILY MEETING SCHEDULE ICS 230-OS	
3. Meeting Schedule (Commonly-held meetings are included)					
Date/ Time	Meeting Name	Purpose	Attendees	Location	
	Tactics Meeting	Develop primary and alternate Strategies to meet Incident Objectives for the next Operational Period.	PSC, OPS, LSC, EUL, RUL & SUL		
	Planning Meeting	Review status and finalize strategies and assignments to meet Incident Objectives for the next Operational Period.	Determined by the IC/UC		
	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command Staff, General Staff, Branch Directors, Div. Sups., Task Force/Strike Team Leaders and Unit Leaders		
	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members		
4. Prepared by: (Situation Unit Leader)			Date/Time		
DAILY MEETING SCHEDULE				ICS 230-OS	

1. Incident Name	2. Meeting Date/Time	MEETING SUMMARY ICS 231-OS
3. Meeting Name		
4. Meeting Location		
5. Facilitator		
6. Attendees		
7. Notes (with summary of decisions and action items)		
8. Prepared by:		Date/Time
MEETING SUMMARY	June 2000	ICS 231-OS

1. Incident Name	2. Operational Period (Date/Time) From: _____ To: _____	RESOURCES AT RISK SUMMARY ICS 232-OS
-------------------------	---	---

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/or Physical Location	Site Issues

Narrative

5. Prepared by: (Environmental Unit Leader)	Date/Time

1. Incident Name:						Incident Open Action Tracker ICS 233-OS	
2. No.	3. Item	4. For/POC	5. Briefed POC (X)	6. Start Date	7. Status	8. Target Date	9. Actual Date
1							
2							
3							
4							
5							
6							
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30							
31							
32							

WORK ANALYSIS MATRIX (ICS 234)

1. Incident Name: _____	2. Operational Period From: _____ To: _____	
3. Operation's Objectives (DESIRED OUTCOME)	4. Optional Strategies (HOW)	5. Tactics/Work Assignments (WHO, WHAT, WHERE, WHEN)
6. Prepared By: Name: _____ Position/Title: _____ Signature: _____		
ICS 234	Date/Time: _____	

WORK ANALYSIS MATRIX FORM INSTRUCTIONS (ICS FORM 234-OS)

Purpose. The Work Analysis Matrix is designed to help select the best strategies and tactics to achieve the operational objectives. This optional form assists staff in carrying out incident objectives by outlining the who, what, where, when, and how of the response. The tactics from this form carry forward to the “Work Assignment” on the ICS-215. Another purpose of the ICS-234 is that it presents alternative (or what-if) strategies and tactics to respond to bad weather, sudden changes in operational conditions, etc. This form is simply a formalized version of how most OSCs tend to think in order to turn objectives into tactical field work.

Preparation. The Work Analysis Matrix, if used, is usually completed by the Operations Section Chief and Planning Section Chief prior to the Tactics Meeting.

Distribution. All completed original forms must be submitted to the Documentation Unit.

Item #	Item Title	Instructions
1	Incident Name	Enter the name of the incident
2	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3	Operational Objectives	Enter the relevant Operational Objectives from the ICS 202, with numbers
4	Operational Strategies	Enter all strategies that could be used to meet the objective (“how”)
5	Tactics/Work Assignments	Enter details, including as much as possible, who, what, where, and when, of work assignments to carry out Operational Strategies
6	Prepared By	Enter the name and position of the person preparing the form
7	Date/Time	Enter the date and time (24-hour format) the form was prepared

EXAMPLES

WORK ANALYSIS MATRIXICS 234-OS

1. Incident Name EXERCISE MP-99	2. Operational Period From: April 10/18 0600hrs To: April 11/18 0600hrs	
3. Operation's Objectives DESIRED OUTCOME	4. Optional Strategies HOW	5. Tactics/Work Assignments WHO, WHAT, WHERE, WHEN
<p>(Life Safety – Priority)</p> <p>Protect the Public: Establish perimeter control and secure incident area by 1030hrs.</p>	<p>Block roads to prevent public access to hazardous area</p>	<p>PMC road block crew #1 will block xx at xx using road block kit and PMC vehicle by 0600hrs.</p> <p>TCPL crew to block xx using their trucks by 0630hrs.</p> <p>Hire xyz security company to provide 24/7 perimeter control by 1000hrs.</p> <p>PMC personnel (crew ABC) to install temporary fencing around the perimeter by 1030 hrs.</p>
	<p>Conduct evacuations within the EPZ</p>	<p>PMC Operations Section – Public Protection Branch Director to conduct phone notifications to impacted parties and provide instructions. Contact info to be obtained from eResponse. All records to be provided to Documentation Unit Leader.</p>
	<p>Conduct vapour monitoring down wind of the incident site</p>	<p>Hire xyz mobile monitoring vendor to conduct vapour monitoring identified in the monitoring plan, starting adjacent to the EPZ and downwind to nearest residences by 0600hrs.</p>
<p>(Life Safety – Priority)</p> <p>Conduct a hazard risk analysis and develop safeguards to protect responders by 1030hrs.</p>	<p>Establish safe working zones by conducting vapour monitoring</p>	<p>PMC air monitoring group 1 to conduct vapour monitoring at xx locations for benzene, total hydrocarbons (LELs) and O2. Must document results and stop work and evacuate if thresholds are exceeded. Must notify Safety Officer if thresholds exceeded. Half face respirators are required if benzene is above xx.</p>
	<p>Decontaminate all responders</p>	<p>Xyz to establish a decontamination chamber and dry decon all responders leaving hot zone. Dry decon procedure attached.</p>

WCSS ICE SAFETY PLAN

Name: _____
 Date: _____
 Time: _____

SITE ASSESSMENT

Location (GPS coordinates, Legal Land Description)			
Date (dd/mm/yy)	/	/	Time
Current Temperature			
Temperature variations last 24 hours			
Predicted temperature variations for next 24 hours			
Windchill			
Site Access description (for responder vehicles / equipment)	Poor	Fair	Good Excellent
Ice Faults	Yes	No	
Pressure Ridges	Yes	No	
Cracks	Yes (wet / dry)	No	

SAFETY CONTROLS

Muster Station	
First Aid Station	
Medical Facility	
Local Hospital	
STARS Registration #	
Warm-up Facility	

ICE CUTTING STRATEGY RESTRICTIONS

- Authorized personnel and equipment only on-ice – Safety Chief/Crew Chiefs
- Stationary loads - < 2 hours
- Personnel working within 2 meters of ice slot must be secured with manned or anchored safety lines
- Buddy system only on-ice personnel.
- Certification required – operating boat, chainsaws other as required.
- Speed limits on ice identified and followed.
- No departures until site is secured,
- Other

SAFETY ORIENTATION

Instructors / Crew Chiefs to review with students / crews

- Hazard Assessment for Working on Ice
- Safety controls
- Emergency communications and actions
- Ice Cutting Strategy Restrictions

Verification Crew Briefings

Ice Evaluation Team	
Ice Slotting Team	
Ice Rescue	
Airboat	

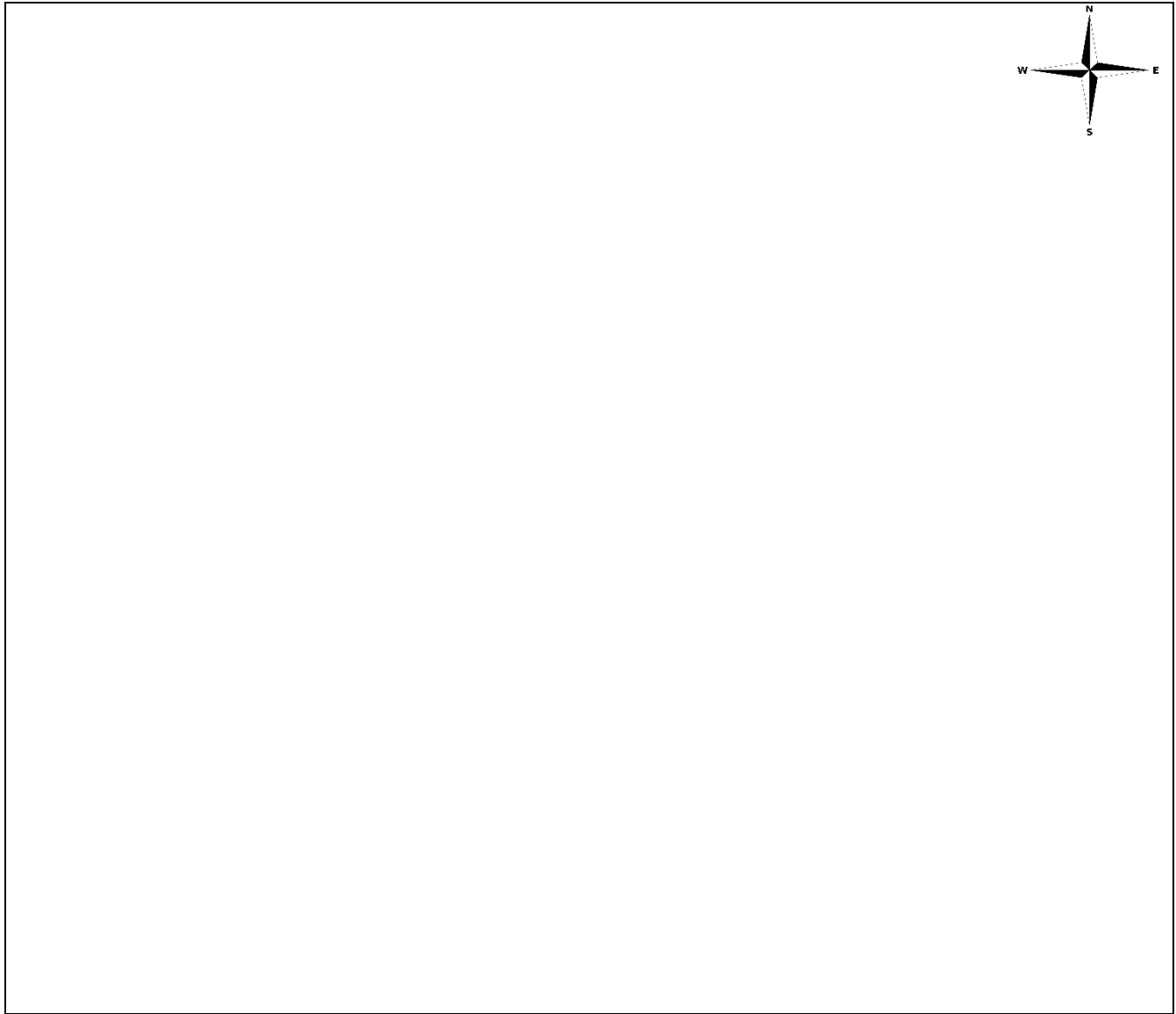
ICE-COVERED WATERCOURSE ASSESSMENT

HOLE #	1	2	3	4	
Ice Thickness (in. / cm)					
Water Depth (in. / cm)					
Current Velocity (km/hr)					
HOLE #	1	2	3	4	m
Ice Thickness (in. / cm)					
Water Depth (in. / cm)					
Current Velocity (km/hr)					
HOLE #	1	2	3	4	m
Ice Thickness (in. / cm)					
Water Depth (in. / cm)					
Current Velocity (km/hr)					
HOLE #	1	2	3	4	m
Ice Thickness (in. / cm)					
Water Depth (in. / cm)					
Current Velocity (km/hr)					

NOTE

Indicate the direction of flow at each augured hole with an arrow on the surface. Once direction of flow and main current has been identified, mark out a pattern for slot location or deflection boards.

SITE DRAWING



Ice Thickness (inches/cm) - Draw in bore hole location & indicate thickness in inches & cm

Ice Quality

- Indicate block location
- Indicate thickness of
 - o white ice: _____
 - o blue ice: _____

$$P = A \times h^2$$

A = _____

h² = _____

Effective Ice Thickness: _____

Weight Bearing Capacity: _____

Risk Tolerance: _____

REFERENCE – GENERAL DESCRIPTION OF WORK

Objectives:

	Ensure safety of all workers, observers and others that could be impacted both during and following the work.
	Identify the weight bearing capacity of the ice sheet in the working area.
	Determine suitable risk tolerance for work required.
	Identify a containment and recovery strategy.
	Slot the ice with appropriate equipment.
	Debrief and document follow up requirements and lessons learned.
	Secure the site.

Other:

Typical Sequence of Events:

	Identify Equipment Deployment Site Location
	Hazard assessment and identification of safety controls and zones
	Develop Ice Safety Plan
	Crew orientations and specific hazard identification and safety controls
	Placement of the ice rescue team
	Ice Assessment
	Identify weight bearing capacity and equipment requirements
	Discuss risk tolerance & identify ice removal strategy
	Slot ice and begin recovery operations
	Install boom or dimensional lumber at the perimeter of the spills site to prevent lateral migration
	Debrief
	Identify follow up
	Site clean up
	Secure site and appoint someone to check on barricades

Other:

If this is a spill event; ensure work policies and procedures are in line with the incident action plan and other relevant site-specific spill response plans.

REFERENCE – PERSONAL PROTECTIVE EQUIPMENT

ON-ICE WORKERS – RESCUE TEAM / ICE EVALUATION AND SLOTING TEAM

- Minimum – PFD; floater jacket preferred.
 - Initial Ice Assessment – harness and rope tended and anchored.
 - Further assessment work, ice slotting, containment and recovery-developed as per initial ice assessment. - Minimum 1m distance from slots
 - Ice awls
 - Whistle
 - Appropriate outer work wear
 - Ice cleats if appropriate
 - Chainsaw safety equipment
 - Hearing Protection-(double protection required when operating equipment)
 - Other _____
-

ON-ICE WORKERS – AIR BOATS

- Minimum – personal flotation device (PFD)
 - Hearing and eye protection (double protection required when operating equipment)
 - Warm outer work wear
 - Communications radio or pre-designated signals
 - Ice Cleats
 - Other _____
-

OBSERVERS

- Follow company policy linked to PPE requirements.
- Appropriate outer cold weather clothing.
- Stay off ice unless escorted

Other _____

SECTION 7: Reference Materials

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7.1 Concordance Table

The following tables show the relevant sections of external regulations and standards mapped to each Section within the ERP.

7.1.1 Canada Energy Regulator Onshore Pipeline Regulations (SOR/99-294)

NOTE: The below table follows the format established in the Emergency Procedures Manual (EPM) Review.

CER OPR	CSA Z662	Regulatory Requirement	ERP Section
Document Control and Design			
34, 6.5(i)(o), 32(1.1)	3.1.2(g), 10.5.2.3	A distribution list of all persons holding copies of the plan should be maintained and kept current. Provisions should be made for the review and updating of emergency plans and must identify the individual (or position) responsible. The plans should be reviewed and updated annually at a minimum and more often if major changes are required. A detailed record of changes/revisions must be kept.	<i>Distribution List</i> <i>Revision History</i>
33	10.5.2.2	Applicable response organizations and other agencies must be consulted in the development of this EPM.	Section 8: Government Agencies and Local Authorities <i>Local Section</i>
Definitions and Levels of Emergency			
32(1.1)		The EPM should include a definition and criteria for the determination of an emergency and triggers for various levels of response to emergency situations.	Section 1: Initial Response <i>1.3 Initial Response Checklist</i> <i>1.3.4 Levels of Emergency</i>
OPR ss.32(1.1)		The EPM must describe how emergencies are reported to the company, how appropriate company personnel and first responders will be notified, how confirmation of an incident or release will occur, and the initial steps to be taken.	Section 1: Initial Response <i>All</i>

CER OPR	CSA Z662	Regulatory Requirement	ERP Section
Organizational Structure and Emergency Response Procedures			
6.4, 32(1.1), 6.5(q)	3.1.2(b)	The EPM must contain an organizational structure and Incident Management System (may be in the form of an organizational chart) illustrating the chain of command and functional responsibilities used to coordinate an emergency.	Section 0: Overview <i>0.4 Emergency Response Framework</i> Section 2: Roles and Responsibilities <i>2.2 IMT Organization</i> <i>2.4 CCMT Organization</i>
6.4, 32(1.1), 6.5(q)	3.1.2(b)	The EPM must include site-specific information (including high risk / high consequence areas)	Section 9: Area Specific Information <i>All</i>
32(1.1), 48		The EPM must include spill control procedures and locations of spill control points	Section 4: Incident Specific Measures <i>4.4 Spill or Leak</i> Section 9: Area Specific Information <i>All</i> 8.1 Incident, Spill and Release Reporting Requirements
	10.5.2.1	The EPM must contain, or make reference to, shutdown procedures.	Section 1: Initial Response <i>1.3 Initial Response Checklist</i> Section 2: Roles and Responsibilities Section 9: Area Specific Information <i>9.4 Alarms and Communications</i> <i>9.6 Other Area Specific Information</i>
	10.5.2.1	The EPM must identify procedures for down-grading emergency response levels.	Section 2: Roles and Responsibilities <i>2.1.2 Demobilization / Post Incident Procedures</i>
	10.5.2.1	Public safety measures must be included or referenced in the EPM.	Section 3: Responder Safety and Public Protection <i>All</i>
Roles and Responsibilities			
6.4(b), 32(1)	3.1.2(b)	The EPM must identify each responder's role, responsibilities and reporting relationship. Sufficient details should be provided to ensure that all critical activities are covered.	Section 2: Roles and Responsibilities <i>All</i>

CER OPR	CSA Z662	Regulatory Requirement	ERP Section
32(1), 33, 34	3.1.2(b)	Companies must consult with agencies during the development and updating of EPMs and response plans to facilitate clarity on roles, responsibilities and capabilities. These roles and responsibilities must be identified in the EPMs.	Section 8: Government Agencies and Local Authorities <i>Local Section</i>
6.4(c), 32(1.1)		Where a company relies on support from other organizations, (Ex. contracted response organizations); (for personnel or equipment) mutual aid or other agreements must be identified and should be listed in the EPM.	Section 4: Incident Specific Measures <i>4.1 Functional Support Plans</i> Section 8: Government Agencies and Local Authorities <i>Mutual Aid</i> Section 9: Area Specific Information <i>9.8 External Support Organizations</i>
6.5(t)		The EPM must include or make reference to the source location of response and contingency plans and other critical response information that may be utilized during an emergency.	Section 4: Incident Specific Measures <i>All</i>
Product Information			
32(1.1)		The EPM must include product information.	Section 1: Initial Response <i>1.3.2 Initial Actions and Assessment</i> Section 7: Reference Materials <i>7.6 Characteristics of H₂S and SO₂</i>
Hazards and Site Safety			
6.5(c)(d)	3.1.2(f)	The EPM must address the hazards identified in the company hazards inventory.	Section 1: Initial Response <i>1.3.3 Initial Actions and Assessment</i> Section 4: Incident Specific Measures <i>All</i> Section 7: Reference Materials <i>7.6 Characteristics of H₂S and SO₂</i> Section 9: Area Specific Information <i>Technical Data</i>
6.5(e)(f)		The company must have a documented risk evaluation process applicable to the EM program.	Section 1: Initial Response <i>1.3 Initial Response Checklist</i>

CER OPR	CSA Z662	Regulatory Requirement	ERP Section
6.5(f)		The EPM must have, or make reference to the controls in place to prevent, manage and mitigate the identified hazards and risks.	Section 1: Initial Response <i>1.3 Initial Response Checklist</i> Section 4: Incident Specific Measures All Section 7: Reference Materials <i>7.6 Characteristics of H₂S and SO₂</i> Section 9: Area Specific Information Alarms and Communications <i>Equipment Lists and Location</i> <i>Other Area Specific Information</i>
	10.2.6.1	Procedures must be in place for site control and security during an incident.	Plains Incident Management Handbook: <i>Roles and Responsibilities:</i> <i>Security Unit Leader, Roadblock Group Supervisor</i> Section 3: Responder Safety and Public Protection <i>3.2 Responder Safety</i> <i>3.4 Isolation of the EPZ</i> Section 9: Area Specific Information <i>Alarms and Communications</i> <i>Maps and Plot Plans</i>
	10.5.1.1(b)	Area maps must be included in the EPM.	Section 9: Area Specific Information <i>Maps and Plot Plans</i>
Communication			
6.5(m), 32(1.1), 34		The EPM will include how the company will manage the internal and external communication and flow of information, including how the company will manage communications with First responders and other agencies on site.	Section 1: Initial Response <i>1.3.1 Notifications</i> Section 5: Communications and Media All
	3.1.2(d)	The EPM will include a public relations or media plan.	Section 5: Communications and Media All
6.5(m)		The actions taken and communications equipment available will be sufficient to cover the operating area.	Section 5: Communications and Media All Section 9: Area Specific Information <i>Equipment Lists</i>

CER OPR	CSA Z662	Regulatory Requirement	ERP Section
Emergency Response Equipment			
47	10.2.7.1	Companies should possess or have access to sufficient emergency response equipment appropriate for the type of product being stored and the conditions in which it is being stored to respond to the worst-case emergency, as determined by its hazard assessments. The plan should also describe the resources that are available from other contractors and organizations and the contracts or written agreements for accessing these resources should be referenced.	Section 4: Incident Specific Measures <i>4.1 Functional Support Plans</i> Section 8: Government Agencies and Local Authorities <i>Mutual Aid</i> Section 9: Area Specific Information <i>Equipment Lists and Locations</i> <i>External Support Organizations</i>
46	3.1.2(c)(iii)	All applicable personnel will be trained in the appropriate use of the equipment.	Section 7: Reference Materials <i>7.2 Training Requirements</i> Section 8: Government Agencies and Local Authorities <i>Mutual Aid</i>
Internal and External Notification and Reporting			
33, 34	10.4.3.1	The EPM will include current, verified, internal and external notification lists, including company employees, first responders, response organizations, contractors, mutual aid partners, Indigenous Peoples, and government officials.	Section 9: Site Specific Information <i>All</i>
34		There will be confirmed methods for contacting persons and businesses in the EPZ.	Plains Incident Management Handbook: <i>Roles and Responsibilities: Public Protection Branch Director, Notification Group Supervisor</i> Section 3: Responder Safety and Public Protection– <i>3.6 Evacuation</i> <i>3.7 Shelter-in-Place</i> Section 9: Area Specific Information <i>Local Public Information</i>
52		Procedures must be in place for reporting incidents to the appropriate regulatory bodies.	Section 1: Initial Response <i>1.3 Initial Response Checklist</i> <i>1.3.1 Notifications</i> Section 8: Government Agencies and Local Authorities <i>Federal and Provincial Sections</i>

CER OPR	CSA Z662	Regulatory Requirement	ERP Section
Documentation			
6.5(n), 56(g)(vii)	3.1.2(e), 10.4.3.2	The EPM will include procedures for record keeping during and following an emergency, including minimum record keeping requirements, a forms index and information that must be retained.	Section 1: Initial Response <i>All</i> Section 2: Roles and Responsibilities <i>2.1.2 Demobilization / Post Incident Procedures</i> Plains Incident Management Handbook: <i>Roles and Responsibilities: Common Responsibilities (Scribe), Transfer of Personnel, Documentation Unit Leader</i> Section 6: Forms <i>All</i>
Continuing Education and Training			
6.5(j)(k), 35, 46	3.1.2(c), 10.5.2.4	Procedures must be established to provide for initial and refresher training for all personnel (internal and external) who will have a role in an emergency response. Exercises should be conducted to evaluate the company's response capabilities. The EPM should indicate the types of exercises and frequency with which they are conducted.	Section 7: Reference Materials <i>7.2 Training Requirements</i> <i>Training Records</i> <i>Exercise Reports</i>
35		Procedures must be established to provide for continuing education for all personnel who will have a response role or be impacted in the event of an incident. All applicable individuals, agencies, contractors, etc. will be provided training appropriate to their role regarding proper use of the EPM.	Section 7: Reference Materials <i>7.2 Training Requirements</i> <i>EM Training Matrix</i> <i>Training Records</i> <i>Exercise Reports</i> <i>Consultation Records</i>

7.1.2 AER Directive 071 (D071)

D071	Regulatory Requirement	ERP Section
2.1 (1)	The licensee must have a corporate-level ERP with preplanned procedures that will aid in effective response to an emergency.	Section 1: Initial Response <i>All</i> Section 2: Roles and Responsibilities <i>All</i> Section 4: Incident Specific Measures <i>All</i>
2.1 (2)	The licensee must include the following information in its ERP:	N/A
	Key Licensee Contacts	Section 9: Area Specific Information <i>Internal Emergency Telephone Numbers</i>
	24-hour licensee emergency contact telephone number	Section 9: Area Specific Information <i>PMC 24-hour Emergency Lines</i>
	A method of classifying incidents and response actions for specific incidents	Section 1: Initial Response <i>1.3.2 Initial Actions and Assessment</i> <i>1.3.4 Level of Emergency</i>
	A communication plan that addresses <ul style="list-style-type: none"> • Communication with response team, support services and government • Communication with the public and media • Downgrading and stand-down of emergency levels 	Section 0: Overview <i>0.4.2 Response Organizations</i> Section 2: Roles and Responsibilities <i>2.1.2 Demobilization / Post Incident Procedures</i> Plains Incident Management Handbook: <i>Roles and Responsibilities: Liaison Officer</i> Section 5: Communications and Media <i>All</i>
Establishment of incident management systems	Section 0: Overview <i>0.4.1 Response Principles</i> <i>0.4.7 Incident Command System</i> <i>0.4.8 ICS Planning Cycle</i> Section 2: Roles and Responsibilities <i>All</i>	

D071	Regulatory Requirement	ERP Section
	Activation of a reception centre	Plains Incident Management Handbook: <i>Roles and Responsibilities: Reception Centre Group Supervisor</i> Section 4: Public Protection Measures <i>All</i> Section 9: Site Specific Information <i>Reception Centres</i>
2.1.1 (5)	The licensee must include all the information in Appendix 4 in its corporate-level ERP.	Section 1: Initial Response <i>1.3.4 Level of Emergency</i>
2.1.1 (6)	The licensee must define appropriate actions, including public protection measures that would be taken for each level of emergency.	Section 1: Initial Response <i>1.3 Initial Response Checklist</i> Section 3: Responder Safety and Public Protection <i>All</i>
2.1.2 (7)	The licensee must describe its procedures for contacting and maintaining communication with key licensee personnel, government agencies, support services, members of the public, and the media.	Section 0: Overview <i>0.4.2 Response Organizations</i> Plains Incident Management Handbook: <i>Roles and Responsibilities: Liaison Officer, Public Information Officer</i> Section 5: Communications and Media <i>All</i>
	The licensee must clearly define the responsibility to contact the ERCB and other responders in the event of an emergency.	Section 1: Initial Response <i>1.3.1 Notifications</i>

D071	Regulatory Requirement	ERP Section
	<p>The licensee must describe procedures that will be implemented during an incident to contact and maintain communication with directly impacted members of the public in order to keep them informed of the situation and the actions being taken.</p>	<p>Section 0: Overview <i>0.4.2 Response Organizations</i> Section 2: Roles and Responsibilities <i>2.8 Liaison Manager</i> <i>2.10 Public Information Manager</i> Plains Incident Management Handbook: <i>Roles and Responsibilities: Liaison Officer. Public Information Officer</i> Section 3: Responder Safety and Public Protection <i>All</i> Section 5: Communications and Media <i>All</i></p>
	<p>The licensee must describe procedures that will be used to inform and update the media and procedures in getting factual messages out to the public at large in an expeditious manner.</p>	<p>Section 5: Communications and Media <i>All</i></p>
	<p>The licensee must describe procedures to downgrade and stand-down levels of emergency.</p>	<p>Section 2: Roles and Responsibilities <i>2.1.2 Demobilization / Post Incident Procedures</i> Plains Incident Management Handbook: <i>Roles and Responsibilities: Demobilization Unit Leader</i></p>
2.1.3 (8)	<p>The licensee must identify the roles and responsibilities of personnel required to effectively respond to an emergency.</p>	<p>Section 2: Roles and Responsibilities <i>All</i></p>
2.1.4 (9)	<p>The licensee must describe how it will manage and coordinate a response to an emergency.</p>	<p>Section 1: Initial Response <i>All</i> Section 2: Roles and Responsibilities <i>All</i></p>
	<p>The licensee must address the roles and responsibilities of personnel at its on-site command post, the company regional emergency operations centre (REOC), and the corporate EOC.</p>	<p>Section 0: Overview <i>0.4.2 Response Organizations</i></p>
	<p>The licensee is expected to clearly outline the communication protocols and procedures to be used between these command centres.</p>	<p>Section 0: Overview <i>0.4.2 Response Organizations</i> Section 2: Roles and Responsibilities <i>All</i></p>

D071	Regulatory Requirement	ERP Section
2.1.5 (10)	The licensee must set out the procedures for activating a reception centre located at a safe distance from the release source, and meeting and registering evacuees at the reception centre.	Plains Incident Management Handbook: <i>Roles and Responsibilities:</i> <i>Reception Centre Group Supervisor</i> Section 3: Responder Safety and Public Protection <i>All</i> Section 9: Site Specific Information <i>Reception Centres</i>

7.1.3 Environmental Emergency Regulations (SOR/2019-51)

The following tables show the relevant sections of the Government of *Canada Environmental Emergency Regulations, 2019*, mapped to each Section within the ERP and Site Specific Environmental Emergency (E2) Plan.

These regulations aim to help reduce the frequency and severity of accidental releases of hazardous substances into the environment. Made under the *Canadian Environmental Protection Act, 1999*, they improve industry’s capacity to deal with environmental emergencies that may occur at fixed facilities across Canada.

These regulations require that any person who owns, has the charge, management or control of a regulated substance at or above certain quantities notify Environment and Climate Change Canada (ECCC). For higher-risk facilities, an environmental emergency plan must also be prepared, brought into effect and exercised.

The *Environmental Emergency Regulations, 2019* (the final regulations) were published in the Canada Gazette on March 6, 2019.

SOR/2019-51	Regulatory Requirement	ERP Section
Maximum Expected Quantity		
1(2)	For the purposes of these Regulations, the maximum expected quantity of a substance is to be determined in accordance with subsections 3(1) to (4) for the one-year period beginning on the day on which the applicable situation referred to in subsection 3(1) or (5) occurs or the one-year period beginning on the day on which a notice is submitted under section 13.	PMC Technical Asset Review/EPZ Assessment Section 9: Site Specific Information <i>Technical Data - Facilities</i> Site Specific (E2) Plan <i>ECCC Regulated Substances</i>
List of Substances		
2(1) (a) (b)	<p>For the purposes of the definition substance in section 193 of the Act, the list of substances consists of</p> <p>The substances having a CAS registry number set out in column 1 of Part 1 of Schedule 1 and that, if present in a mixture, are in a concentration that is greater than or equal to the concentration set out in column 3 of that Part; and</p> <p>The solutions having a CAS registry number set out in column 1 of Part 2 of Schedule 1, if the concentration of the solute in the solution is greater than or equal to the concentration set out in column 3 of that Part and, in the case of a solution that is present in a mixture, if the concentration of the solute in the mixture is greater than or equal to the concentration set out in column 3 of that Part.</p>	Technical Asset Review/EPZ Assessment Site Specific (E2) Plan <i>ECCC Regulated Substances</i>

SOR/2019-51	Regulatory Requirement	ERP Section
Exclusions		
2(a) (i) (ii) (b) (c) (d) (e) (f) (g) (h) (i)	The following substances are excluded from the list referred to in subsection (1):	Technical Asset Review/EPZ Assessment
	a substance that is identified in column 5 of Part 1 of Schedule 1 as combustible or likely to explode and	Site Specific (E2) Plan <i>ECCC Regulated Substances</i>
	is in a mixture that has a flashpoint greater than 23 °C and a boiling point greater than 35 °C, or	
	is a component of natural gas in its gaseous form;	
	a substance that is identified in column 5 of Part 1 or 2 of Schedule 1 as an inhalation hazard and is in a mixture, in gaseous or liquid form, that has a total vapour pressure of less than 1.33 kPa;	
	a substance that is used to fuel a heating appliance or to generate power at the facility where it is located and is present in a quantity that is less than the quantity set out in column 4 of Part 1 of Schedule 1 for that substance;	
	a substance that is regulated under the Transportation of Dangerous Goods Act, 1992 or the Canada Shipping Act, 2001;	
	a substance that is in a pipeline that is regulated under the Canada Energy Regulator Onshore Pipeline Regulations or in a processing plant that is regulated under the CER Processing Plant Regulations;	
	a substance that is in a pipeline located entirely within a province and that is on a property where there are no fixed onshore installations other than pipelines, compressor stations or pump stations;	
	a substance that is in a fuel tank that is connected to and supplies the engine of a conveyance that is used for transportation;	
the substance set out in item 57 of Part 1 of Schedule 1, if it is in a solid form;		
the substance set out in item 143 of Part 1 of Schedule 1, if it is in the form of solid particles that measure more than 10 µm in diameter; and		
the substance set out in item 167 of Part 1 of Schedule 1, if it is in a form other than white phosphorous.		

SOR/2019-51	Regulatory Requirement	ERP Section
Notice Regarding Substances Located at a Facility		
3(1) (a) (b)	<p>A responsible person must, within 90 days after the day on which either of the following situations occurs, submit to the Minister a notice containing the information referred to in Schedule 2 for each facility at which a substance is located:</p> <p>the total quantity of the substance, whether it is in a container system or not, is equal to or greater than the quantity set out in column 4 of Part 1 or 2 of Schedule 1 for that substance; or</p> <p>a quantity of the substance is placed in a container system that has a maximum capacity that is equal to or greater than the quantity set out in column 4 of Part 1 or 2 of Schedule 1 for that substance.</p>	<p>Schedule 2 – Submitted to Environment Canada Site Specific (E2) Plan <i>ECCC Regulated Substances</i></p>
Excluded quantities		
3(2) (a) (b) (c) (d) (e)	<p>In determining the quantity of a substance for the purposes of subsection (1), the following quantities are excluded:</p> <p>quantities of the substance that are located at the facility for a period of 72 hours or less, unless the substance is loaded or unloaded at the facility, if, during that period, the person keeps evidence of the date and time at which the quantities of the substance arrived at the facility;</p> <p>quantities of the substance that are in a container system that has a maximum capacity of 0.03 t or less;</p> <p>quantities of the substance that are found in slag, waste rock, tailings, solid residues, ores and ore concentrates;</p> <p>quantities of the substance set out in item 17 of Part 1 of Schedule 1 that are in a container system that has a maximum capacity of less than 10 t and is located at least 360 m from all points along the boundary of the facility; and</p> <p>quantities of a substance set out in item 163 of Part 1 of Schedule 1 or item 5 or 9 of Part 2 of that Schedule that are located at a farming operation for on-site use as an agricultural nutrient.</p>	<p>Technical Asset Review/EPZ Assessment</p>

SOR/2019-51	Regulatory Requirement	ERP Section
Determination of Quantity — Part 1 of Schedule 1		
3(3)	For the purposes of subsection (1), the quantity of a substance set out in Part 1 of Schedule 1 that is in a mixture is to be determined by multiplying the quantity of the mixture, expressed in tonnes, by the concentration, expressed in percentage (mass/mass), of the substance in the mixture.	Schedule 1 Technical Asset Review/EPZ Assessment
Determination of Quantity — Part 2 of Schedule 1		
3(4) (a) (b)	<p>For the purposes of subsection (1), the quantity of a substance that is a solution set out in Part 2 of Schedule 1 is to be determined.</p> <p>in the case of a solution that is not in a mixture, by multiplying the quantity of the solution, expressed in tonnes, by the concentration expressed in percentage (mass/mass) of the solute in the solution; and</p> <p>in the case of a solution that is in a mixture, if the concentration of the solute in the solution is available, by multiplying the quantity of the mixture, expressed in tonnes, by the concentration expressed in percentage (mass/mass) of the solute in the solution and the concentration expressed in percentage (mass/mass) of the solution in the mixture, and if the concentration of the solute in the solution is not available, by multiplying the quantity of the mixture, expressed in tonnes, by the percentage (mass/mass) of the solution in the mixture.</p>	Schedule 1 Technical Asset Review/EPZ Assessment
Notice of Change		
3(5) (a) (b) (c)	<p>A responsible person must, within 60 days after the day on which any of the following situations occurs, submit an updated notice to the Minister that contains the information referred to in Schedule 2:</p> <p>the information that was reported under section 1 or 2 of Schedule 2 has changed;</p> <p>the maximum expected quantity that was most recently reported under paragraph 3(d) of Schedule 2 in respect of a substance has increased by 10% or more; or</p> <p>the maximum capacity that was most recently reported under paragraph 3(f) of Schedule 2 in respect of a container system, in which a quantity of a substance is contained, has increased by 10% or more.</p>	Schedule 2 – Submitted to Environment and Climate Change Canada

SOR/2019-51	Regulatory Requirement	ERP Section
Preparation		
4(1) (a) (b)	<p>A responsible person must, for each facility at which a substance is located, prepare an environmental emergency plan with respect to the substance under the following circumstances:</p> <p>if some or all of the substance is not in a container system, a responsible person has reported a maximum expected quantity under paragraph 3(d) of Schedule 2 that is equal to or greater than the quantity set out in column 4 of Part 1 of Schedule 1 for that substance; or</p> <p>if the substance is in a container system, a responsible person has reported</p> <p>under paragraph 3(d) of Schedule 2, a maximum expected quantity that is equal to or greater than the quantity set out in column 4 of Part 1 or 2 of Schedule 1 for that substance, and</p> <p>under paragraph 3(f) of Schedule 2, a maximum capacity that is equal to or greater than the quantity set out in column 4 of Part 1 or 2 of Schedule 1 for that substance.</p>	<p>Schedule 2 – Submitted to Environment Canada</p> <p>Site Specific (E2) Plan</p> <p><i>ECCC Regulated Substances</i></p>
Required Content		
4(2) (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o)	<p>The environmental emergency plan must include the following:</p> <p>a description of the properties and characteristics of the substance and the maximum expected quantity of the substance at the facility;</p> <p>a description of the commercial, manufacturing, processing or other activity involving the substance that takes place at the facility;</p> <p>a description of the facility and of the area surrounding the facility that may be affected by an environmental emergency referred to in paragraph (d), including any hospitals, schools, residential, commercial or industrial buildings and any highways, public transit infrastructure, parks, forests, wildlife habitats, water sources or water bodies;</p>	<p>Section 9: Site Specific Information</p> <p><i>Technical Data - Facilities</i></p> <p>Site Specific (E2) Plan</p> <p><i>Location</i></p> <p><i>Directions and Access</i></p> <p><i>ECCC Regulated Substances</i></p> <p><i>Characteristics of Facility and Surrounding Area</i></p>



SOR/2019-51	Regulatory Requirement	ERP Section
	<p>an identification of any environmental emergency that could reasonably be expected to occur at the facility and that would likely cause harm to the environment or constitute a danger to human life or health, including the environmental emergency referred to in paragraph (e) and, if applicable, the environmental emergency that is more likely to occur than the environmental emergency referred to in paragraph (e) and that would have the longest impact distance outside the boundary of the facility;</p> <p>an identification of the harm to the environment or danger to human life or health that would likely result from an environmental emergency involving the release of the maximum quantity of the substance that could be contained in the container system that has the largest maximum capacity, if a quantity of the substance is in a container system, and</p> <p>the maximum expected quantity of the substance that will not be in a container system, if a quantity of the substance is not in a container system;</p> <p>an identification of the harm to the environment or danger to human life or health that would likely result from the environmental emergency identified under paragraph (d), if any, that is more likely to occur than the environmental emergency referred to in paragraph (e) and would have the longest impact distance outside the boundary of the facility;</p> <p>a description of the measures to be taken to prevent and prepare for the environmental emergencies identified under paragraph (d) and the measures that will be taken to respond to and recover from such emergencies if they were to occur;</p> <p>a list of the position titles of the persons who will make decisions and take a leadership role in the event of an environmental emergency and a description of their roles and responsibilities;</p> <p>a list of the environmental emergency training that has been or will be provided to prepare personnel at the facility who will respond in the event that an environmental emergency identified under paragraph (d) occurs;</p>	<p>Section 9: Site Specific Information</p> <p><i>Technical Data - Facilities</i></p> <p>Site Specific (E2) Plan</p> <p><i>Substance Specific Properties & Emergency Management</i></p> <p><i>Roles & Responsibilities</i></p> <p><i>Training</i></p>



SOR/2019-51	Regulatory Requirement	ERP Section
	<p>a list of the emergency response equipment that is necessary for the measures described in paragraph (g) and the equipment's location;</p> <p>a description of the measures that will be taken by a responsible person or by a responsible person and local authorities, acting jointly, to communicate with the members of the public who may be adversely affected by the environmental emergency referred to in paragraph (f) to inform them, before the environmental emergency occurs, of</p> <p>the possibility that the environmental emergency could occur,</p> <p>the potential effects of the environmental emergency on the environment and on human life or health, taking into account the factors referred to in paragraphs (a) to (c), and</p> <p>the measures that will be taken by the responsible person to protect the environment and human life or health, and the means by which the responsible person will communicate with them, in the event that the environmental emergency occurs;</p> <p>a description of the measures that will be taken by a responsible person or by a responsible person and local authorities, acting jointly, to, in the event that an environmental emergency involving the release of a substance occurs, communicate with the members of the public who may be adversely affected to provide them, during and after its occurrence, with information and guidance concerning the actions that could be taken by them to reduce the potential harm to the environment and danger to human life or health, including an explanation of how those actions may help to reduce the harm or danger;</p> <p>the position title of the person who will communicate with the members of the public referred to in paragraphs (k) and (l);</p> <p>a description of the consultations that a responsible person had with local authorities, if any, with respect to the measures referred to in paragraph (k) and (l); and</p> <p>a plan of the facility showing the location of any substances in relation to the physical features of the facility.</p>	<p>Site Specific (E2) Plan</p> <p><i>Public Communication</i></p> <p><i>Local Authority Communication</i></p> <p><i>Facility Map & Plot Plan</i></p> <p><i>Facility Site Section</i></p>

SOR/2019-51	Regulatory Requirement	ERP Section
Existing Plan		
4(3)	For the purposes of subsection (1), a responsible person may use an environmental emergency plan that has been prepared on a voluntary basis, or for another government or under another Act of Parliament, if that plan meets the requirements of subsection (2) or is amended so that it meets those requirements.	Site Specific (E2) Plan
Adequate measures		
4(4)	The measures included in the environmental emergency plan must be adequate to address the objectives of preventing, preparing for, responding to and recovering from the environmental emergencies identified under paragraph (2)(d).	Site Specific (E2) Plan <i>Substance Specific Properties & Emergency Management</i>
Notice – preparation of plan		
5	Within six months after the day on which an environmental emergency plan is required to be prepared under subsection 4(1), a responsible person must inform the Minister that they have prepared the plan or are using a previously prepared plan in accordance with subsection 4(3) by submitting a notice that contains the information referred to in Schedule 3.	Schedule 3 - Submitted to Environment and Climate Change Canada
Bringing into effect		
6	Within 12 months after the day on which an environmental emergency plan is required to be prepared under subsection 4(1), a responsible person must bring the plan into effect and submit a notice to the Minister that contains the information referred to in Schedule 4.	Schedule 4 - Submitted to Environment and Climate Change Canada
Simulation Exercise		
7(1) (a) (b)	A responsible person must conduct simulation exercises in relation to each environmental emergency plan that is prepared under subsection 4(1) as follows: each year, beginning on the day on which the plan is brought into effect, a simulation exercise in respect of one substance from each of the hazard categories referred to in column 5 of Parts 1 and 2 of Schedule 1, using an environmental emergency identified under paragraph 4(2)(d) as the emergency being simulated; and every five years, beginning on the day on which the plan is brought into effect, a full-scale simulation exercise in respect of any one substance, using an environmental emergency referred to in paragraph 4(2)(e) or (f) as the emergency being simulated.	Section 7: Reference Materials 7.2 Training Requirements <i>EM Training Matrix</i>

SOR/2019-51	Regulatory Requirement	ERP Section
Cycle for simulation exercises		
7(2)	For the purposes of paragraph (1)(a), a simulation exercise conducted in respect of a substance belonging to a given hazard category must simulate a different environmental emergency for each subsequent simulation exercise until all of the environmental emergencies identified under paragraph 4(2) (d) for each of the substances belonging to that hazard category have been simulated, after which the environmental emergencies must be cycled through again.	Section 7: Reference Materials <i>7.2 Training Requirements</i> <i>EM Training Matrix</i>
7(3)	Paragraph (1)(a) does not apply in respect of a year during which a full-scale simulation exercise is conducted under paragraph (1)(b).	Section 7: Reference Materials <i>7.2 Training Requirements</i>
Record of simulation exercise		
8	After each simulation exercise is conducted in relation to the environmental emergency plan, a responsible person must prepare a record that contains the date, a summary and the results of the simulation exercise and any modifications to be made to the plan as a result of the simulation exercise	Section 7: Reference Materials <i>7.2 Training Requirements</i> <i>Training Records</i> <i>Exercise Reports</i>
Notice — simulation exercises conducted		
9	A responsible person must, within five years after the day on which the environmental emergency plan is brought into effect under section 6, submit a notice to the Minister containing the information referred to in Schedule 5 concerning the simulation exercises conducted in relation to an environmental emergency plan.	Schedule 5 - Submitted to Environment and Climate Change Canada
Updates to the plan		
10	A responsible person must review and, if necessary, update the environmental emergency plan at least once a year to ensure that it continues to meet the requirements of subsection 4(2) and keep a record of the date of the review.	<i>Revision History</i>
Access		
11	A responsible person must make a copy of the environmental emergency plan readily available at the facility referred to in subsection 4(1) and at any other place where a copy of the plan needs to be kept for consultation by the individuals who are to carry it out.	<i>Distribution List</i>

SOR/2019-51	Regulatory Requirement	ERP Section
Measures under paragraph 201(1)(b) 12		
12	The emergency measures that are to be taken under paragraph 201(1)(b) of the Act include the measures to respond to and recover from an environmental emergency that are set out in the environmental emergency plan. of Act	Section 1: Initial Response <i>All</i> Section 4: Incident Specific Measures <i>All</i> Section 7: Reference Materials <i>7.7 Canadian Environmental Protection Act (E2) Requirements</i>
Periodic Submission of Notices Notice regarding a substance		
13	If a notice has been submitted under subsection 3(1), a responsible person must submit a new notice to the Minister that contains the information referred to in Schedule 2 no later than five years after the day on which the most recent notice containing that information was submitted.	Schedule 2 – Submitted to Environment and Climate Change Canada
Notice of simulation exercise		
14	If a notice has been submitted under section 9, a responsible person must submit a new notice to the Minister that contains the information referred to in Schedule 5 no later than five years after the day on which the most recent notice containing that information was submitted.	Schedule 5 - Submitted to Environment and Climate Change Canada
Change in Circumstances Change in quantity or capacity		
15(1) (a) (b)	If a notice has been submitted under subsection 3(1) in respect of a substance located at a facility, a responsible person must submit a notice to the Minister if the total quantity of the substance located at the facility is, for a period of one year, less than the quantity set out in column 4 of Part 1 or 2 of Schedule 1 for that substance; or a quantity of the substance is, for a period of one year, no longer found in a container system at the facility that has a maximum capacity that is equal to or greater than the quantity set out in column 4 of Part 1 or 2 of Schedule 1 for that substance	Schedule 1 Schedule 2 – Submitted to Environment and Climate Change Canada

SOR/2019-51	Regulatory Requirement	ERP Section
Time limit for submission		
15(2) (b)	The notice must contain the information referred to in Schedule 6 and be submitted no later than 60 days after the end of the period referred to in paragraph (1)(a) or (b), as the case may be.	Schedule 6 - Submitted to Environment and Climate Change Canada
Cessation of operations		
16	A responsible person who intends to cease operations for a period of one year or more at a facility where a substance is located, for any purpose other than maintenance, must submit a notice containing the information referred to in Schedule 7 to the Minister at least 30 days before the day on which operations are to cease, or as soon as feasible in the case of extraordinary circumstances such as fire, major accident, vandalism, natural disaster or act of terrorism.	Schedule 7 - Submitted to Environment and Climate Change Canada
Transfer of ownership of facility		
17	If there is a transfer of the ownership of a facility where a substance is located, a responsible person must, if a notice has been submitted under subsection 3(1) in respect of the substance, submit a notice containing the information referred to in Schedule 7 to the Minister on or before the date of the transfer.	Schedule 7 - Submitted to Environment and Climate Change Canada
Reporting of Environmental Emergencies Paragraph 201(1)(a) of Act		
18(1) (a) (b) (c)	For the purposes of these Regulations, paragraph 201(1)(a) of the Act applies only in relation to an environmental emergency that has or may have an immediate or long-term harmful effect on the environment; constitutes or may constitute a danger to the environment on which human life depends; or constitutes or may constitute a danger in Canada to human life or health.	Section 7: Reference Materials <i>7.7 Canadian Environmental Protection Act (E2) Requirements</i> Section 8: Government Agencies and Local Authorities 8.1 Incident, Spill and Release Reporting Requirements <i>Federal Reporting Requirements</i>

SOR/2019-51	Regulatory Requirement	ERP Section
Written Report — designated person		
18(2)	The person who is designated to be provided with a written report respecting the occurrence of an environmental emergency involving a substance that is on the list referred to in section 2 is the Regional Director, Environmental Enforcement Directorate, Enforcement Branch, Department of the Environment, in the region where the environmental emergency occurs.	Section 7: Reference Materials <i>7.7 Canadian Environmental Protection Act (E2) Requirements</i> Section 8: Government Agencies and Local Authorities 8.1 Incident, Spill and Release Reporting Requirements <i>Federal Reporting Requirements</i>
Written Report — required contents		
18(3)	The written report must include the information referred to in Schedule 8.	Schedule 8 - Submitted to Environment and Climate Change Canada
Submission Requirements Certification		
19(1)	Any information that is required to be submitted under these Regulations, and any written report provided under paragraph 201(1)(a) of the Act, must be accompanied by a certification, signed and dated by the person who is required to submit the information or provide the report, or by their authorized representative, stating that the information or report is accurate and complete.	Signed Declaration
Additional information		
19(2)	If the certification is provided by an authorized representative, the authorized representative must provide their name, telephone number and email address.	Signed Declaration
Electronic submission under these Regulations		
20(1)	Any information that is required to be submitted to the Minister under these Regulations must be submitted electronically in the form and format specified by the Minister and bear the electronic signature of the person who is required to submit the information or of their authorized representative.	N/A

SOR/2019-51	Regulatory Requirement	ERP Section
Electronic submission — written report of environmental emergency		
20(2)	Any written report provided under paragraph 201(1)(a) of the Act to an enforcement officer or the person referred to in subsection 18(2) must be submitted electronically in the form and format specified by the Minister and bear the electronic signature of the person who is required to submit the report or of their authorized representative.	N/A
Submission on paper		
20(3)	If the Minister has not specified a form and format or if it is not feasible to submit the information or report electronically because of circumstances beyond the person's control, the information or report, as the case may be, must be submitted on paper in the form and format specified by the Minister, if any, and be signed by the person or their authorized representative.	N/A
Record Keeping		
21(1)	Any records prepared in accordance with sections 8 and 10 must be kept at the facility referred to in subsection 4(1).	N/A
Seven years		
21(2)	The records referred to in subsection (1) must be kept for a period of not less than seven years beginning on the day on which they are prepared.	N/A
Transitional Provision Application of section 3		
22	For the purposes of section 3, if either of the situations described in paragraph 3(1)(a) or (b) occurs in respect of a facility before the day on which these Regulations come into force, a responsible person must submit the notice referred to in subsection 3(1) to the Minister within 90 days after the day on which these Regulations come into force.	Schedule 2 – Submitted to Environment and Climate Change Canada

7.2 Training Requirements

PMC is committed to ensure that personnel involved in an emergency response fully understand their roles and the roles of others with whom they may interact during an incident. To meet this commitment and to ensure personnel respond effectively, training activities will include:

Exercise Frequency

- Table Top or Communication Exercises must be performed annually for all federal and/or provincial regulated ERPs.
- Full Scale Major Exercises must be performed once every 3 years for all federal and/or provincial regulated ERPs.
- Table Top Exercise must be performed annually for all E2 registered sites, including a more extensive simulation exercise every five years

Table Top Exercise

- Designed to explore emergency situation, free of time constraints, with an emphasis on learning, discussion and group problem solving
- Review initial response processes/standards, communication protocols and managing a response effort from the Incident Command Post.
- The exercise complexity, scope and duration will vary based on the pre-defined exercise objectives and may include EOC and/or government agency participation.

Full Scale Exercise

- Designed to fully activate the Emergency Response Plan and prompt the involvement of:
 - Applicable government agencies with simulation of non-participating agencies.
 - Applicable Local and Health Authorities, with simulation of non-participating authorities.
 - Public, stakeholders and media may be simulated.
 - Corporate Emergency Operations Centre and resources.
- The exercise complexity, scope and duration will vary based on the pre-defined exercise objectives and external participation.

Specialized Emergency Response Training

- Emergency response training can be facilitated as a standalone session or as training module(s) in conjunction with table top and full scale exercises. These training sessions include, but are not limited to:
 - **Incident Command System (ICS) Training** - Standalone certified ICS, ICS role specific and/or PMC designed ICS courses.
 - E.g. ICS 200/300, ICS Management by Objectives, ICS Planning Section, etc.
 - **Specialty Emergency Response Tactical Training**- Exercises and specialty training sessions that involve the deployment of response equipment.
 - E.g. Spill Response On-water, Spill Response On-ice, Boat Handling, etc.
 - **Functional Group Training** - Training sessions facilitated for a specific PMC Department(s) or Functional Group.
 - E.g. Stakeholder Notification, Trucking, Logistics, Health & Safety, etc.

- **Specialty Training Modules** – Training modules generally facilitated in conjunction with exercises to enhance responder knowledge and competency.
 - E.g. Public Protection, Front Line Media, ICS Refresher, ERP Orientation, etc.

First Responder Continuing Education Sessions

- Designed to provide continual education for first responders, local authorities and government agencies regarding energy sector emergency response. Continuing education messages are supplied to applicable stakeholders on a 2 year alternating basis via:
 - First responder information handouts, public information handouts and area maps.
 - Face to face presentations, site tours and local authority consultations.
 - Phone updates when requested and on an as needed basis.
- All stakeholders identified within the program are educated on the following:
 - Emergency Response Plans/Emergency Procedures Manuals.
 - Emergency response procedures and incident specific measures
 - Roles and responsibilities of various responders.

7.4 Acronyms

Emergency Management

AOBD	Air Operations Branch Director	ISB	In-situ Burn
BD	Branch Director	ISD	Incident Status Display
CCMT	Corporate Crisis Management Team	JIC	Joint Information Centre
COML	Communications Unit Leader	LO	Liaison Officer
CST	Corporate Strike Team	LSC	Logistics Section Chief
DMOB	Demobilization Unit Leader	MUL	Medical Unit Leader
DOCL	Documentation Unit Leader	NIMS	National Incident Management System
EOC	Emergency Operations Centre	OSC	Operations Section Chief
EMS	Emergency Medical Services	OSRO	Oil Spill Response Organization
EMT	Emergency Medical Technician	PIO	Public Information Officer
EUL	Environmental Unit Leader	PROVIC	Provincial Incident Commander
FedIC	Federal Incident Commander	PSC	Planning Section Chief
FNIC	First Nation Incident Commander	RAR	Resources at Risk
FSC	Finance/Administration Section Chief	RARTHSP	Resources at Risk Technical Specialist
GIS	Geographic Information System	RO	Response Organization
GSUL	Ground Support Unit Leader	RP	Responsible Party
HAZMAT	Hazardous Materials	RPIC	Responsible Party Incident Commander
HAZSUB	Hazardous Substances	RUL	Resources Unit Leader
H/C	Historic/Cultural	SAR	Search and Rescue
IAP	Incident Action Plan	SCAT	Shoreline Cleanup Assessment Team
IC	Incident Commander	SITL	Situation Unit Leader
ICP	Incident Command Post	SO	Safety Officer
ICS	Incident Command System	SSHPP	Site Safety and Health Plan
IMH	Incident Management Handbook	SITREP	Situation Report
IRG	Incident Response Guidebook	TFR	Temporary Flight Restrictions
IMT	Incident Management Team	THSP	Technical Specialist
INT	Intelligence Officer	UC	Unified Command

Security

ACTCMP	Alberta Counter-Terrorism Crisis Management Plan
AERCB	Alberta Energy Resources Conservation Board
BC OGC	British Columbia Oil & Gas Commission
CAPP	Canadian Association of Petroleum Producers
CCV	Closed Circuit Video Surveillance
CER	Canada Energy Regulator
CGA	Canadian Gas Association
CPTED	Crime Prevention Through Environmental Design
CSIS	Canadian Security and Intelligence Service
C-TPAT	Customs-Trade Partnership Against Terrorism
FAST	Free and Secure Trade
IDS	Intrusion Detection System
NRCAN	Natural Resources Canada
PSC	Public Safety Canada
PSS	Physical Security Standard
RCMP	Royal Canadian Mounted Police
SMP	Security Management Program
SOP	Standard Operating Procedures
SRA	Security Risk Assessment
STRP	Security Threat Response Plan
STVRA	Security Threat Vulnerability Risk Assessment

7.5 Glossary

Agency Representative - Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting his/her agency's participation at the incident. Agency Representatives report to the Liaison Officer upon arrival at the ICP.

Air Operations Branch Director - The person primarily responsible for preparing and implementing the air operations portion of the Incident Action Plan. Also responsible for providing logistical support to helicopters assigned to the incident.

Alert - 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.

Allocated Resources - Resources (personnel and equipment) dispatched to an incident.

Assigned Resources - Resources checked-in and assigned work tasks on an incident.

Assignments - Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.

Assistant - Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be used to supervise unit activities at camps.

Assistants could attend the same meeting to assist with scribing. Assistants do not have the authority to make decisions on behalf of their superior.

Assisting Agency - An agency which directly contributes tactical or service resources in support of an incident response.

Available Resources - Incident-based resources which are immediately available for an assignment.

Base - The location at which some logistics functions are coordinated and administered. (Incident name or other designator will be added to the term "Base"). The Incident Command Post may be collocated with the base. There is only one base per incident.

Branch - The organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section.

Cache - A pre-determined complement of tools, equipment, and/or supplies stored in a designated location, and available for incident use.

Camp - A geographical site, within the general incident area, separate from the base, equipped and staffed to provide sleeping areas, food, water, and sanitary services to out-of-service incident personnel.

Ceiling Recommended Exposure Limit – Recommend Exposure Limit - The concentration that should not be exceeded during any part of the working exposure. An employee's exposure to a hazardous substance shall at no time exceed the ceiling value.

Check-In - The process whereby resources first report to an incident response. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Helibases, and Division/Group Supervisors (for direct line assignments).

Chief - The ICS title of individuals responsible for command of functional sections: Operations, Planning, Logistics, and Finance/Administration.

Clear Text - The use of plain English in radio communications transmissions. No Ten Codes nor agency specific codes are used when using Clear Text.

Closure Order - Also known as a Fire Hazard Order. A closure order is issued to close a specific area to unauthorized personnel. The closure order area is that area within the boundaries described in an order issued by the ERCB under Section 97(1) of the Oil and Gas Conservation Act.

Command - The act of directing, ordering, and/or controlling resources by virtue of explicit legal, agency, or delegated authority. May also refer to the Incident Commander/Unified Command.

Command Post - See Incident Command Post.

Command Staff - The Command Staff consists of the Information Officer, Safety Officer, Liaison Officer, and Legal Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.

Communications Unit - Functional unit within the Logistics Sections responsible for Incident communications equipment and facilities, supervising the Incident Communications Centre, distributing communications equipment to incident personnel, and the maintenance and repair of communications equipment.

Control Point – A location-specific response tactic used to contain or recover oil. A river, stream or creek may include many control points along its path where response resources (boom, skimmers, etc.) may be deployed. Control Points are described in the Emergency Response Plans.

Cooperating Agency - An agency supplying assistance other than direct tactical, support, or service functions or resources to the incident control effort (Ex. Red Cross, telephone company, etc.).

Corporate Crisis Management Team – Comprehensive team established at the Emergency Operations Centre to support the field and IMT response. The CCMT provides direction and support for local actions with emergency management response guidance, designed to enhance the local facility's emergency plan and capabilities; while also managing external pressure(s) from the media, local community or other stakeholders to allow the local response team to focus on containing the issue itself.

Corporate Level ERP - A corporate-level ERP is used when a specific ERP is not required and contains preplanned procedures that will allow for effective response to an emergency

Corporate Strike Team - The Corporate Strike Team (CST) is comprised of enterprise-wide personnel that respond to the local incident scene and directly support the on-site Facility Response Team through the Incident Command Structure (ICS). The CST is responsible for communicating and coordinating activities through the Responsible Party Incident Commander (RPIC).

Cost Unit - Functional unit within the Finance/ Administration Section responsible for tracking costs, analyzing cost data, making cost estimates, and recommending cost-saving measures.

Decontamination – The process of removing or neutralizing contaminants that have accumulated on personnel and equipment.

Deputy - A fully-qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior, and, therefore, must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff, and Branch Directors.

Demobilization Unit - Functional unit within the Planning Section responsible for assuring orderly, safe, and efficient demobilization of incident resources.

Director - The ICS title for individuals responsible for supervising a Branch.

Dispatch - The implementation of a command decision to move resources from one place to another.

Dispatch Centre - A facility from which resources are directly assigned to an incident.

Division - The organization level having responsibility for operation within a defined geographic. The Division level is organizationally between the Task Force/Strike Team and the Branch. (See also "Group"). Divisions may be led by a Division Supervisor.

Documentation Unit - Functional unit within the Planning Section responsible for collecting, recording, and safeguarding all documents relevant to the incident.

E2 Emergency Planning Zone (E2 EPZ) - A geographical area surrounding a facility and associated on-site storage containing hazardous product that represents the most likely emergency scenario and requires specific emergency response planning by the licensee.

E2 Worst Case Zone - A geographical area surrounding a facility and associated on-site storage containing hazardous product that represents the worst case emergency scenario.

Emergency - A present or imminent event that requires prompt coordination of action or special regulation of persons or property to protect health, safety or welfare of people or to limit damage to property.

Emergency Management – Management of an emergency or incident. The PMC ICS organization is designed to fulfill the emergency management role.

Emergency Medical Technician (EMT) - A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.

Emergency Operations Centre (EOC) - A pre-designated facility established by company, agency or jurisdiction to coordinate overall jurisdictional/agency response/support to emergency response.

Emergency Planning Zone (EPZ) - A geographical area surrounding a well, pipeline, or facility containing hazardous product that requires specific emergency response planning by the licensee.

Emergency Shut Down Valve (ESD) - A valve that blocks the passage of material from both directions and can automatically close when the amount of material passing through the valve exceeding allowable limits.

ERCBH2S - A software tool that calculates site-specific EPZs using thermodynamics, fluid dynamics, atmospheric dispersion modelling, and toxicology.

Evacuation - The removal of people from the incident area or EPZ.

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 interchangeably. The terms "Too Lean" and "Too Rich" are used for levels outside of the explosive range.

Facilities Unit - Functional unit within the Support Branch of Logistics Section that provide fixed facilities for incident. These facilities include Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.

Finance/Administration Section - The Section responsible for all incident costs and financial considerations. Includes the; Time Unit, Procurement Unit, Compensation/Claims Unit, and Cost Unit.

Fire Hazard Order - An order issued by the ERCB during an emergency to restrict public access to a specified area.

Government Emergency Operations Centre (GEOC) - An operations centre with capacity to accommodate CMO's from each Government department. It is comprised of two centres, the Consequence Management Operations Centre (COMOC) and the Crisis Management Operations Centre (CRMOC). The GEOC was formerly known as the EMAOC or COMOC. Also called Provincial Operations Centre (POC).

Food Unit - Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.

Function - In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, Ex. "the planning function."

General Plan - A long-range plan to manage an incident. The General Plan is used to identify long-range objectives and resource requirements. The General Plan defines time line and framework looking into future and covering the duration of response.

General Staff - The group of incident management personnel comprised of; Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.

Geographic Information System (GIS) - An electronic information system that provides a geo-referenced data base to support management decision-making.

Ground Support Unit - Functional unit within Support Branch of the Logistics Section responsible for fueling, maintaining, vehicle repair, and ground transportation of personnel and supplies.

Group - Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform special function not necessarily within a single geographic Division (see Division). Groups are located between Branches (when activated) and Single Resources in the Operations Section.

Hazardous Product - Substances released in quantities that may harm persons, property or the environment.

Heli-base - Location within the general incident area for parking, fueling, maintaining, and loading helicopters.

Heli-spot - Location where helicopters can take off/land. Some may be used for temporary loading.

High Vapour Pressure (HVP) - A pipeline system containing hydrocarbon mixture in the liquid or quasi-liquid state with a vapour pressure greater than 110 kPa absolute at 38°C. Some examples are liquid ethane, ethylene, propane, butanes, and pentanes plus. HVP lines 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.

Hydrogen Sulphide (H₂S) - 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. H₂S 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 irritation. Depending on the particular gaseous mixture, gas properties, and ambient conditions, a sour gas release may be

- heavier than air so that the gas cloud will tend to drop towards the ground with time (dense),
- lighter than air so the gas cloud will tend to rise with time (buoyant), or
- about the same weight as air so that it tends to neither rise nor drop but disperses (neutrally buoyant).

Ignition - Process of setting a hydrocarbon release on fire.

Incident - An unexpected occurrence or event, caused by human or natural phenomena, that requires action by upstream and/or emergency personnel, to prevent or minimize the impact on the safety or health of people, property or the environment.

Incident Action Plan (IAP) - Incident Action Plan contains Objectives reflecting the overall incident and specific strategies and tactics for the next operational period. IPAs will include attachments when complete.

Incident Area - Legal geographical area of incident including affected area(s) and traffic route(s) to corresponding storage and disposal sites.

Incident Base - See Base.

Incident Commander (IC) - Individual(s) responsible for managing all incident activities.

Incident Command Post (ICP) - Location at which the primary Command functions are executed; may be co-located with the incident base.

Incident Command System (ICS) - Standardized on-scene emergency management system specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

Incident Communication Centre - Location of the Communications Unit and the Message Centre.

Incident Objectives - Statements of guidance and direction necessary for the selection of appropriate strategies, and tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

Incident Management Handbook (IMH) - A pocket-size manual of guidelines regarding application of the ICS.

Incident Management Team (IMT) - Comprehensive team established at ICP to include all components of a Command, General Staff and support personnel. IMT members have delegated authority and formal responsibilities.

Incident Situation Display (ISD) - The Situation Unit is responsible for maintaining a display of status boards which communicate critical incident information vital to establishing and maintaining an effective command and control environment.

Initial Isolation Zone (IIZ) - An area in close proximity to a continuous hazardous release where indoor sheltering may provide temporary protection due to the proximity of the release.

Isolation - To separate an area or process from the rest of the plant.

Public Information Officer (PIO) - A member of the Command Staff responsible for providing incident information to the public and news media or other agencies or organizations. There is only one PIO per incident. The PIO may have assistants.

Jurisdiction - A range or sphere of authority. At an incident, public agencies have jurisdiction related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (Ex. city, county, municipality, or Federal boundary lines), or functional (Ex. police department, health department, etc.). (See Multi-Jurisdiction).

Jurisdictional Agency - Agency having jurisdiction and responsibility for specific geographical area, or mandated function.

Leader - The ICS title for an individual responsible for a Task Force/Strike Team or functional Unit.

Liaison Officer (LO) - A member of the Command Staff responsible for coordinating with stakeholder groups and representatives from assisting and cooperating agencies.

Liquefied Petroleum Gas (LPG) - Mixture of heavier, gaseous hydrocarbons (butane and propane), liquefied as a portable source of energy.

Logistics Section - The Section responsible for providing facilities, services, and materials for the incident.

Lower Explosive/ Flammable limit (LEL/LFL) - The lowest concentration of gas or vapour (per cent by volume in air) that burns or explodes if an ignition source is present at ambient temperatures.

Mobile Air Quality Monitoring - The use of sophisticated portable equipment capable of measuring meteorological conditions and tracking substances such as H₂S or SO₂ and of measuring very low (ppb) atmospheric concentrations and also capable of being able to record and provide preliminary analysis (eg. averaging values over time) of the monitored readings.

Managers - Individuals within ICS organizational units who are assigned specific managerial responsibilities (Ex. Staging Area Manager or Camp Manager).

Medical Unit - Functional unit within the Service Branch of the Logistics Section responsible for developing the Medical Plan, and for providing emergency medical treatment for incident response personnel.

Message Centre - The message centre is part of the Communications Centre and collocated with or adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status, and handles administration and tactical traffic.

Multi-Agency Incident - Incident where one or more agencies assist jurisdictional agency/agencies. May be single or Unified Command.

Multi-Jurisdiction Incident - Incident requiring action from multiple agencies that have statutory responsibility for incident mitigation. In ICS, these incidents will normally be managed using a Unified Command.

Officer - ICS title for personnel responsible for Command Staff positions of Safety, Liaison, and Information.

Operational Period - Period of time scheduled for execution of given set of operational actions specified in the IAP. Operational Periods can be various lengths, usually not over 24 hours.

Operations Section - Responsible for all operations directly applicable to the primary mission. Directs unit operational plans preparation, requests or releases resources, makes expedient changes to the Incident Action Plan (as necessary), and reports such to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch.

Out-Of-Service Resources - Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

Planning Meeting - A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.

Planning Section - Responsible for collecting, evaluating, and disseminating tactical information related to the incident, and for preparing and documenting IAPs. The section also maintains information on the current and forecast situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Environmental, Documentation, and Demobilization Units, and Technical Specialists.

Polrep - Pollution report.

Preplanned Strategy - Strategies developed and documented prior to an incident.

Procurement Unit - Functional unit within Finance/Administration Section responsible for financial matters involving vendor contracts.

Protective Action Zone (PAZ) - An area downwind of a hazardous release where outdoor concentration levels may result in life threatening or serious and possibly irreversible health effects to the public.

Provincial Emergency Operations Centre (PEOC) - also called GEOC

Radio Cache - A cache may consist of a number of portable radios, a base station, and, in some cases, a repeater stored in a predetermined location for dispatch to incidents.

Reception Centre - A centre established to register evacuees and to assess their needs. The centre is used to register evacuees for emergency shelter or, if temporary shelter is not required because evacuees will stay elsewhere, to ascertain where they can be contacted.

Recorders - Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics, and Finance/Administration.

Regional Emergency Operations Centre (REOC) - A single operations centre established in a suitable location to manage the larger aspects of the emergency and is manned jointly by a level of government and industry staff.

Reporting Location - Any one of six facilities/locations where incident assigned resources may be checked in. The locations are: Incident Command Post-Resources Unit, Base, Camp, Staging Area, Helibase, or Division/Group Supervisors (for direct line assignments.) Check-in for each specific resource occurs at one location only.

Resources - All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Resources at Risk Technical Specialist (RAR) - Responsible for identifying at risk resources from exposure to spilled oil by analyzing known and anticipated oil movement, the location of natural cultural and economic resources.

Resource Status - Describes the current operational status of response resources. ICS recognizes three definitions - available, assigned and out-of-service. Oil spill resource tracking also recognizes an en-route status.

Resources Unit - Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.

Responsible Party (RP) - The owner/operator (PMC) of the infrastructure which is the spill source.

RP Incident Commander (RPIC) - PMC's designated Incident Commander.

Safety Officer (SO) - A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.

Section - The organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance/ Administration. The Section level is organizationally between Branch and Incident Commander.

Service Branch - A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical, and Food Units.

Shelter In Place - Remaining indoors for short term protection from exposure to toxic gas releases.

Single Resource - Individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

Site Safety And Health Plan (SSHP) - Site-specific document required by Provincial and Federal regulations. The SSHP, at minimum, addresses, includes, or contains the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations work plan, personnel training requirements, PPE selection criteria, site-specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures (if needed), pre-entry briefings (tailgate meetings, initial and as needed), pre-operations commencement health and safety briefing for all incident participants, and quality assurance of SSHP effectiveness.

Situation Unit - Functional unit within the Planning Section responsible for collecting, organizing, and analyzing incident status information, and for analyzing the situation as it progresses.

Situation Status - Activity of documenting and communicating operational response status.

Sulphur Dioxide (SO₂) - A colourless, water-soluble, suffocating gas formed by burning sulphur in air; also used in the manufacture of sulphuric acid. SO₂ has a pungent smell similar to a burning match. SO₂ is extremely toxic at higher concentrations. The molecular weight of SO₂ is heavier than air; however, typical releases are related to combustion therefore making the gaseous mixture lighter than air (buoyant).

Source Control - Actions necessary to control the spill source and prevent the continued release of oil or hazardous substance(s) into the environment.

Span of Control – Span of Control means how many organizational elements may be directly managed by one person. Span of Control may vary from three to seven, and a ratio of one to five reporting elements is recommended.

Staging Area - The location where incident personnel and equipment are staged awaiting tactical assignment.

Stakeholders - Any person, group, or organization affected by, and having a vested interest in, the incident and/or the response operation.

Strategy - The general plan or direction selected to accomplish incident objectives.

Strike Team - Specified combinations of the same kinds and types of resources, with common communications and a leader.

Surface Development - Occupied permanent or part-time dwellings, publicly used facilities including campgrounds, places of business, and any other surface development where the public may gather on a regular basis. Surface development includes residences that are required to egress through the EPZ and those immediately adjacent to the EPZ.

Supervisor - The ICS title for individuals responsible for directing the activities of a Division or Group.

Supply Unit - Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.

Support Branch - A Branch within the Logistics Section responsible for providing personnel, equipment, and supplies to support incident operations. Includes the Supply, Facilities, Ground Support, and Vessel Support Units.

Supporting Materials - Refers to the several attachments that may be included with an Incident Action Plan (Ex. communications plan, map, site safety and health plan, traffic plan, and medical plan).

Tactical Direction - Directions given by the Operations Section Chief including: the tactics appropriate for the selected strategy; the selection and assignment of resources; tactics implementation; and performance monitoring for each operational period.

Tactics - Deploying and directing resources during an incident to accomplish the desired objective.

Task Force - A group of resources with common communications and a leader assembled for a specific mission.

Technical Specialists - Personnel with special skills who can be used anywhere within the ICS organization.

Time Unit - Functional unit within the Finance/Administration Section responsible for recording time for incident personnel and hired equipment.

Unified Command (UC) - Unified team which manages an incident by establishing a common set of incident objectives and strategies. This is accomplished without loss nor abdication of agency nor organizational authority, responsibility, nor accountability.

Unit - The organizational element having functional responsibility for a specific incident planning, logistic, or finance/administration activity.

Vapour Density - A measure of the weight of the gas compared to air (air = 1).

Vapour Pressure - The pressure exerted by the vapour when the rate of evaporation is equal to the rate of condensation of the vapour.

Vessel Support Unit - Functional unit within the Support Branch of the Logistics Section responsible for implementing the Vessel Routing Plan; for fueling, maintaining, and repairing vessels and other vessel support equipment; and coordinating transportation on the water and between or among shore resources.

Volunteer - Any individual accepted to perform services by an agency which has the authority to accept volunteer services. A volunteer is subject to the provisions of the authorizing statute or regulations.

7.6 Characteristics of H₂S and SO₂

Characteristics and Dangers of Hydrogen Sulphide (H₂S)

- Found in decaying organic matter, natural oil and gas, silos and sewers.
- Found at gas temperatures above -60°C.
- Flammable – burns to form SO₂.
- Odour of rotten eggs at low concentrations that kills all sense of smell at higher concentrations.
- Will tend to disperse more slowly in sheltered or calm low lying areas.
- Extremely toxic.
- At lower concentrations (20-50 ppm) irritates mucous membranes (eyes, throat, lungs), causes headaches, dizziness, nausea, may cause pulmonary edema (fluid in the lungs) upon prolonged exposure.
- High concentrations (500-1000 ppm) may cause paralysis of the respiratory centre in the brain and breathing stops.

H₂S Toxicity Table

Concentration H ₂ S 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.

Concentration H ₂ S in Air (ppm)	Description of Potential Health Effects
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.

NOTE: Adapted from: Technical Advisory Committee on Public Health and the Oil and Gas Industry, Environmental Public Health Manual for Oil and Gas Activities in Alberta, 2007

Characteristics and Dangers of Sulphur Dioxide (SO₂)

- This is a choking gas, unlike H₂S, and one wants to move to an area where the discomfort is not experienced.
- Formed by the combustion of H₂S or sulphur and is non-flammable.
- Found as a gas at temperatures above -10°C.
- Has the odour that occurs when a wooden match is extinguished.
- Highly irritating – dissolves to form sulphuric acid.
- At lower concentrations irritates eyes, nose and throat, causes difficulty in breathing and shortness of breath.
- Causes pulmonary edema at high concentrations – may be fatal. Effects on heavy smokers are more severe.

SO₂ Toxicity Table

Concentration SO ₂ in Air (ppm)	Description of Potential 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.
3.0	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.

NOTE: Adapted from: Technical Advisory Committee on Public Health and the Oil and Gas Industry, Environmental Public Health Manual for Oil and Gas Activities in Alberta, 2007

7.7 Canadian Environmental Protection Act (E2) Requirements

Environment Canada requires any petroleum operator who has charge, management, or control of substances in excess of threshold limits listed in ‘*Schedule 1 of the Canadian Environmental Protection Act*’ to:

- Submit notices (some periodic) to inform ECCC of compliance with the regulatory requirements
- Prepare an Environmental Emergency Plan (E2 Plan) and review and update it, if necessary, at least once per year
- Bring the E2 Plan into effect to make sure the facility is ready to respond to an accidental release
- Conduct simulation exercises of the E2 Plan each year, a more extensive simulation exercise every five years and prepare a record after each exercise to be kept for a minimum of 7 years
- Keep a copy of the E2 Plan readily available at the facility and other places where it is needed

For details about the PMC storage facilities, Facility Licence Numbers, Facility Codes, types of containers, substances stored [United Nations (UN) Number], guide numbers, quantities, volumes, transportation methods, transportation frequencies, and Canadian Transport Emergency Centre (E2) Zones refer to the appropriate PMC Site-Specific Supplemental Section.

Description of Surrounding Area

For area specific Emergency Response Plans (ERPs) - Refer to 9.2 *General Area Description* for a description of the surrounding area.

Emergency Response Planning

- For a map showing the E2 Zone(s) refer to *Section 9: Area Specific Information: Maps and Plot Plans* and *Environmental Emergency Plan*.
- For a plot plan refer to *Section 9: Area Specific Information: Maps and Plot Plans*.
- For the location of the surface developments inside the E2 Zone(s) refer to *Section 9: Area Specific Information: Maps and Plot Plans* and *Environmental Emergency Plan*.
- To identify the various roadways and waterways/water bodies inside the E2 Zone(s) refer to *Section 9: Area Specific Information and Environmental Emergency Plan (Characteristics of the Facility and Surrounding Area)*.
- For the list of applicable ECCC Sensitive Receptors and Response Considerations in the E2 Zones(s) refer to *Section 9: Area Specific Information: Environmental Emergency Plan (Characteristics of the Facility and Surrounding Area)*.
- For government agencies that may be affected by an environmental emergency refer to the appropriate Site-Specific Supplemental Section and Environmental Emergency Plan.
- For mutual aid refer to the mutual section in *Section 8: Government Agencies and Local Authorities*.
- For procedures to carry out response activities refer to *Section 2: Roles and Responsibilities*.

Prevention and Mitigation

PMC has in place the following key elements of safety management:

- Risk assessment – as appropriate the following questions have been reviewed:
 - Is the product bullet or storage tank properly installed and a proper maintenance schedule followed?
 - Is the product bullet or storage tank free of any corrosion and damage?
 - If required, is the piping painted?
 - Is the product bullet or storage tank an adequate distance from buildings?
 - Is the product bullet or storage tank or systems (including piping) of which they are part of protected from damage from vehicles?
 - Is the area around the product bullet or storage tank well ventilated and free of any possible ignition source?
 - Is the area around the product bullet or storage tank free from combustible material?
 - Is the product bullet or storage tank properly grounded to avoid static accumulation?
 - Are operators of the equipment instructed to wear appropriate personal protective equipment (PPE)?
 - Are any hoses or fittings visually inspected before use?
 - Have the employees been certified in the proper use and handling of NGLs and condensate?
 - Have all employees and anyone else who may be responsible for implementing this plan been made aware of their responsibilities and have the necessary skills and training?
- The systems are designed and constructed to specific industry standards.
- PMC has preventive maintenance checks and programs.
- PMC is committed to maintaining effective operating procedures and facility documentation.
- Operator competence is ensured through determining the type and amount of training each employee requires upon hiring.
- Process and procedures are in place to ensure that changes in design, service, or staff are effectively managed to minimize impacts on operations.
- Incident investigation and analysis is conducted to minimize reoccurrence
- Regular review is carried out to assess compliance to standards.

Preparedness - Most Reasonable Worst Case Scenario

Using a HAZOP risk assessment technique or similar, PMC has identified the Most Reasonable Worst Case Scenario of an Environmental Emergency to include the following.

- A valve leak from a product bullet or storage tank.
- A product bullet or storage tank spill or leak becoming ignited.
- A cascading (secondary effect) fire igniting the product bullet or storage tank.

PMC has identified that “Common and Reasonable Alternative Scenarios” would most likely be a leak or spill while loading or unloading a product bullet or storage tank.

PMC has identified the potential consequences from an environmental emergency on the environment and human life or health to be serious injury or fatality in the event of an explosion or leak.

Emergency Preparedness Standards

Refer to *Section 8: Government Agencies and Local Authorities* for specific provincial or regulatory training and exercise requirements. PMC emergency management program standards are outlined in *7.2 Training Requirements*. This includes details regarding orientations, specialized emergency response training, table tops, full scale exercises, and exercise records.

Recovery

PMC will shut in the affected pipeline or facility, assess and respond to the environmental impacts in compliance with all regulation, only bringing the pipeline system or facility back on stream in the most efficient manner. PMC has the resources and financial ability to respond and recover from any environmental emergency.

7.8 Transportation of Dangerous Goods (TDG)

PMC 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:

TABLE		
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, or without packing group	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

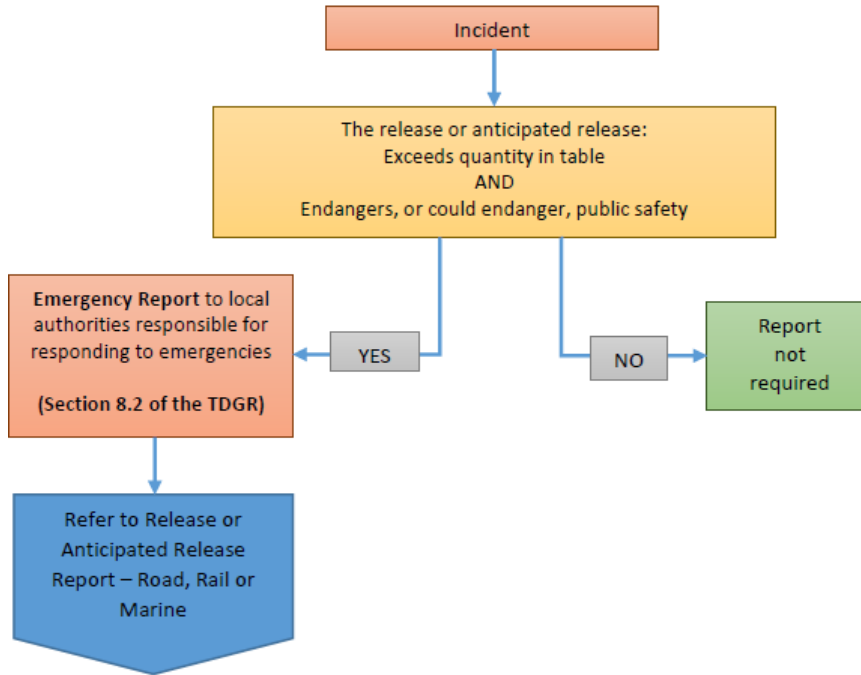
SOR/2016-95, s. 10 SOR/2017-253, s. 52 SOR/2019-101, s. 9

Types of reports required by Transport Canada

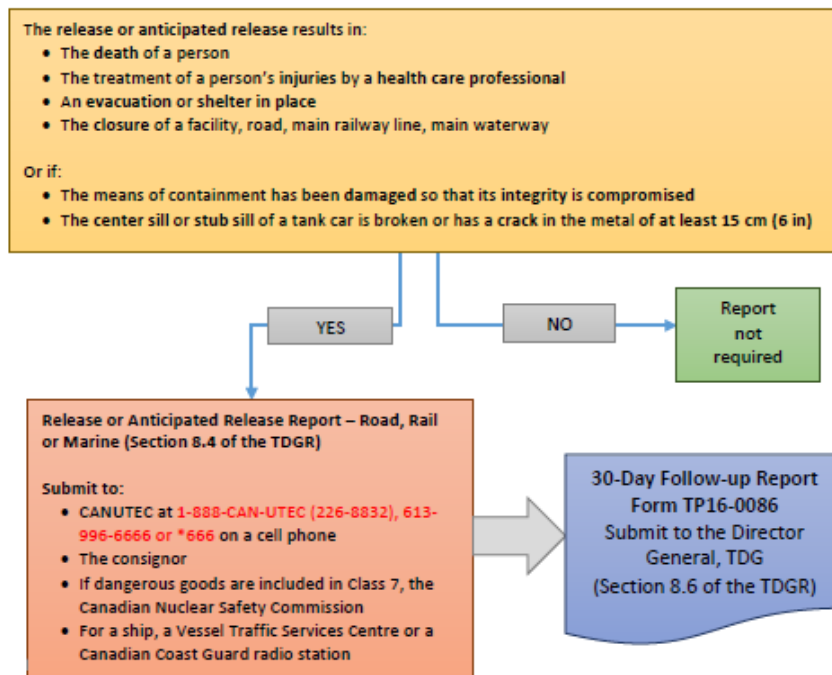
Part 8 of the *Transportation of Dangerous Goods Regulations SOR/2001-286* (Reporting Requirements) requires a number of different report types. When certain conditions are met, persons subject to the TDG Regulations must submit one of the report types below.

- Reports for the Transport of Dangerous Goods by Road, Rail and Marine
- Emergency Report – Road, Rail or Marine (Section 8.2 of the TDG Regulations)
- Release or Anticipated Release Report – Road, Rail or Marine (Section 8.4 of the TDG Regulations)
- 30-Day Follow-up Report (Section 8.6 of the TDG Regulations)
- Reports for the Transport of Dangerous Goods by Air
- Dangerous Goods Accident or Incident Report — Air (Section 8.9 of the TDG Regulations)
- 30-Day Follow-up Report (Section 8.11 of the TDG Regulations)
- Undeclared or Misdeclared Dangerous Goods Report (Section 8.14 of the TDG Regulations)
- Dangerous Goods Occurrence Report (ICAO) (Section 8.15.1 of the TDG Regulations)
- Reports Relating to Security – All Modes of Transport
- Loss or Theft Report (Section 8.16 of the TDG Regulations)
- Unlawful Interference Report (Section 8.18 of the TDG Regulations)

Flowchart for Emergency Report – Road, Rail or Marine



Flowchart for a release or anticipated release report - Road, Rail or Marine by telephone



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** at **1-844-879-0805**.

Refer to the following link to access the Transport Canada *Guide for Reporting Dangerous Goods Incidents*:

https://tc.canada.ca/sites/default/files/2022-03/guide_for_reporting_dangerous_goods_incidents_2021.pdf

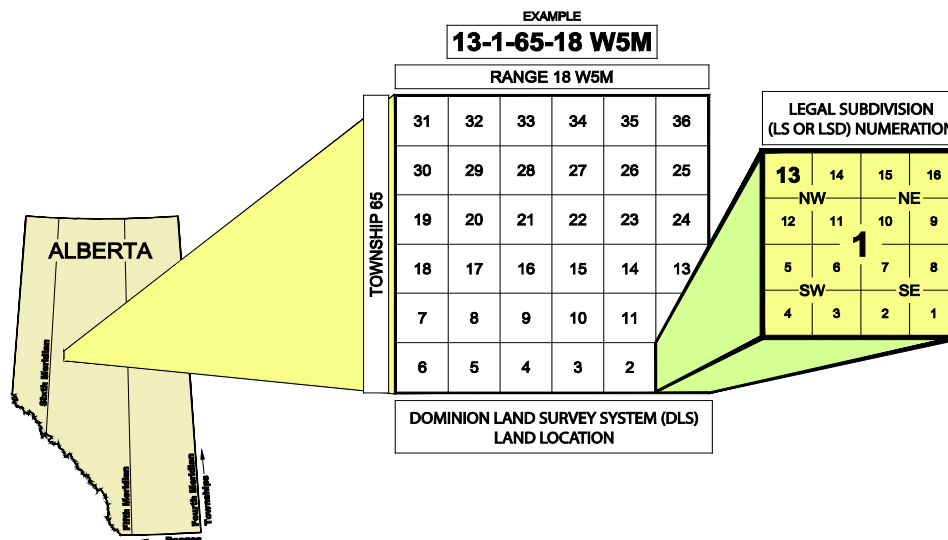
7.9 Dominion Land Survey System (DLS)

Alberta, Saskatchewan and Manitoba

PMC is required to report a release or anticipated release of dangerous goods that are being offered. Any parcel of land can be located by its legal land description. Legal land descriptions are based on the Dominion Land Survey System. The Dominion Land Survey System is a grid network dividing most of Western Canada into equal-sized parcels of land.

Under the Dominion Land Survey System, land is designated as being west of a meridian. Between meridians are six-mile wide columns called Ranges. Ranges are numbered consecutively from east to west starting at Range 1 west of each meridian. Range numbers reset to 1 at each meridian. Townships are six-mile wide rows that intersect ranges and are numbered consecutively from Township 1 at the Montana border to Township 126 at the Northwest Territories border.

The term township also describes the six by six square mile formed by the intersection of ranges and townships. Townships are divided into 36 sections, each section measuring one by one mile. Sections can then be divided into quarters (NE, NW, SE, SW) or into 16 legal subdivisions (LSD or LS) as indicated. The legal description of the section highlighted in the diagram would be written as follows:



Legal Land Description

	LSD or LS	Section	Township	Range	Meridian
Example	13	01	065	18	West of the 5th

Definitions

Section: is a piece of land that measures one mile by one mile

Quarter: is a quarter section

Township: is a block of 36 sections, measuring six miles by six miles

Meridian: is a north-south line used as a reference point. The primary meridian is west of Winnipeg and is the basis for the land surveying throughout the Prairies

7.10 Concessions and Lots

Ontario

Most of southern Ontario employs a survey system based on counties, townships, concessions, and farm lots. A county is grouped together by several named townships of unequal size and shape. Each township was divided into strips called concessions. Think piano keys. The concessions were further divided into 100, 200, or 300-acre lots. The names of these concessions with their township and the lot numbers are all part of the legal description of the property.

Most concessions are named with a simple number like 1, 2, 3 (often shown as Roman numerals) or letter like A, B, C. But many townships, perhaps most townships, have several concessions with unique designations. For example, Lot 7, Concession 5, Sandwich. In the example Sandwich represents a township.

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SECTION 8: Government Agencies and Local Authorities

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8.1 Incident, Spill and Release Reporting Requirements

8.1.1 Ontario Reporting Requirements

Ontario Energy Board (OEB) Reporting
<p>What should be reported?</p> <p>Any level of emergency or any spill as defined by the Ministry of the Environment and Climate Change.</p>
<p>When and how to report?</p> <p>Immediately report verbally to both the Ministry of the Environment and Climate Change - Spills Action Centre at 1-800-268-6060 or 416-325-3000 and Emergency Management Ontario (EMO) Duty Officer at 416-314-0472 or 1-866-314-0472.</p>

Ministry of the Environment and Climate Change Reporting Requirements
<p>What should be reported?</p> <p>A spill must be reported if it:</p> <ul style="list-style-type: none"> Harms or causes material discomfort to any person. Injures or damages property or animal life. Impairs the quality of the natural environment air, water, or land. Causes adverse health effects. Presents a safety risk. Renders property, plant, or animal life unfit for use. Leads to the loss of enjoyment of the normal use of property. Interferes with the normal conduct of business. <p>Spill - are releases of pollutants into the natural environment from a structure, vehicle or other container that is abnormal in quality or quantity.</p> <p>For additional details, spill classifications, and volumes, refer to the Classification and Exemption of Spills and Reporting of Discharges at https://www.ontario.ca/laws/regulation/980675.</p>
<p>When and how to report?</p> <p>Ministry of the Environment and Climate Change maintains a 24-hour reporting line for environmental emergencies. Spills must immediately be reported to the Spills Action Centre at 1-800-268-6060. Spills must also be reported immediately to the municipality and the person in control of the substance, if known, and not already aware. Where requested to do so by an environment officer, a person shall file a written report with the department setting out such information as is requested by the environment officer. [Canadian Environmental Protection Act (CEPA) Section 201 requires a written report within 30 days.]</p>

Chemical Class	Road, Rail or Marine Amount	Loss or Theft Amount
Class 1 Explosives	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
Class 2.1 Flammable Gases	Any quantity	Total quantity of 450 kg or more
Class 2.2 Non- Flammable Gases		No TDG Reporting Requirements
Class 2.3 Toxic Gases (poisonous or corrosive)		Any quantity
Class 3 Flammable liquids	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
Class 4.1 Flammable solids		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
Class 4.2 Spontaneously Combustible		Total quantity of 450 kg or more in Packing Groups I or II
Class 4.3 Dangerous when wet		Total quantity of 450 kg or more in Packing Groups I or II
Class 5.1 Oxidizing substances		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
Class 5.2 Organic peroxides		Any quantity in Class 5.2, Type B, liquid or solid, temperature controlled
Class 6.1 Toxic substances		Any quantity of Packing Group I
Class 6.2 Infectious substances	Any quantity of Category A or B	Any quantity

Chemical Class	Road, Rail or Marine Amount	Loss or Theft Amount
Class 7 Radioactive materials	<p>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</p> <p>For packages not being transported under exclusive use:</p> <p>(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.</p>	Any quantity
Class 8 Corrosives	<p>Any quantity of Packing Group I or II</p> <p>30 L or 30 kg of Packing Group III</p>	<p>Total quantity of 450 kg or more in Packing Group I or II</p> <p>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</p>
Class 9 Miscellaneous products, substances or organisms	25 kilograms or 25 litres	No TDG Reporting Requirements
Class 9.1 Miscellaneous (except and with PCB mixtures)	30 L or 30 kg of Packing Group II or III, or without Packing Group	
Class 9.2 Aquatic Toxic		
Class 9.3 Wastes (chronic toxic)		

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8.1.2 Federal Reporting Requirements

Canada Energy Regulator (CER) Reporting Requirements
<p>What should be reported?</p> <p>A company shall immediately notify the CER of any significant incident. A significant incident is any acute event that results in:</p> <ul style="list-style-type: none"> A death. A missing person [as reportable pursuant to the Canada Oil and Gas Drilling and Production Regulations (DPR) under the Canada Oil and Gas Operations Act (COGOA) or the Oil and Gas Operations Act (OGOA)]. A serious injury (as defined in the Onshore Pipeline Regulations or TSB regulations). A fire or explosion that causes a pipeline or facility to be inoperative. A LVP hydrocarbon release in excess of 1.5 m³ that leaves company property or the right-of-way. A rupture. A toxic plume as defined in CSA Z662.
Transportation Safety Board (TSB) Reporting Requirements
<p>What should be reported?</p> <p>A company shall immediately notify the TSB as soon as possible after discovery of any significant pipeline occurrence that results in:</p> <ul style="list-style-type: none"> A death. A serious injury (defined in the Onshore Pipeline Regulations or the Transportation Safety Board Regulations). An unintended or uncontrolled low-vapour pressure (LVP) hydrocarbon release in excess of 1.5 m³ that leaves company property or occurs on or off the right-of-way. An unintended or uncontrolled sweet natural gas or HVP release > 30,000 m³. Any unintended or uncontrolled release of sour natural gas or hydrogen sulphide. A significant adverse effect on the environment (a release of any chemical or physical substance at a concentration or volume sufficient to cause an irreversible, long-term, or continuous change to the ambient environment in a manner that causes harm to human life, wildlife, or vegetation) A rupture: <ul style="list-style-type: none"> An instantaneous release that immediately impacts the operation of a pipeline segment such that the pressure of the segment cannot be maintained. A toxic plume: <ul style="list-style-type: none"> a band of service fluid or other contaminant (e.g., hydrogen sulfide or smoke) resulting from an occurrence that causes people, including employees, to take protective measures (e.g. muster, shelter-in-place or evacuation) <p>(Source: https://apps.cer-rec.gc.ca/ers)</p> <p>(Source: http://www.tsb.gc.ca/eng/incidents-occurrence/pipeline/index.html)</p>
When and How to Report a Significant Incident or Significant Pipeline Occurrence
<p>Immediately contact the Transportation Safety Board's 24-hour hotline at 819-997-7887.</p> <p>Also, complete the CER/TSB Online Event Reporting System (OERS) electronically at:</p> <p>https://apps.cer-rec.gc.ca/ers/home/index</p>
Canada Energy Regulator (CER) Definition of an Incident
<p>An "incident" is defined in section 1 of the OPR as an occurrence that results in:</p> <ul style="list-style-type: none"> The death of or serious injury to a person. A significant adverse effect on the environment. An unintended fire or explosion. An unintended or uncontained release of low-vapour pressure (LVP) hydrocarbons in excess of 1.5 m³. An unintended or uncontrolled release of gas or high-vapour pressure (HVP) hydrocarbons. The operation of a pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the Board. <p>(Source: https://www.cer-rec.gc.ca/bts/ctrq/gnnb/rprtngqdlns/index-eng.html)</p>

When and How to Report an Incident
<p>When the incident is not significant, complete the CER/TSB Online Event Reporting System (OERS) (https://www.cer-rec.gc.ca/bts/ctrg/gnnb/rprtnggdlns/index-eng.html).</p> <p>If in doubt as to whether the incident is significant or not, proactively and immediately contact the Transportation Safety Board's 24-hour hotline at 819-997-7887.</p>
CER/TSB Online Event Reporting System (OERS)
<p>The CER/TSB Online Event Reporting System (OERS) is intended for use by regulated companies to provide notification to the Canada Energy Regulator (CER) and Transportation Safety Board (TSB) of various events that are defined in regulation including incidents, unauthorized activities, and operations and maintenance activities. Refer to the following link https://apps.cer-rec.gc.ca/ers/home/index.</p>
Reporting Timelines
<p>Section 52 of the OPR requires companies to immediately notify the Board of any incident. Section 3 of the OPR defines Immediately Reportable Events: incidents that harm people or the environment, a rupture, or a toxic plume. The company is required to input the details required by both the TSB and the CER into OERS. The phone notification and the input of information into OERS are required to occur as soon as possible and no later than three hours of the incident being discovered.</p> <p>For all other events that do not meet any of the definitions in the TSB reporting requirements, companies are not required to phone the TSB Reporting Hotline but must report the event as soon as possible and no later than twenty-four hours after the event was discovered.</p> <p>Section 52 of the OPR also requires the submission of a Preliminary Incident Report (PIR) and a Detailed Incident Report (DIR) "as soon as is practicable". Generally, companies' initial notification of an incident will satisfy the PIR requirements. The information required for a DIR must be submitted within 12 weeks of reporting an incident. For complex incidents, companies may request an extension for submission of a DIR.</p>
Additional Reporting
<p>During any level of emergency a company will also:</p> <ul style="list-style-type: none"> ➤ Refer to the appropriate provincial Notification Matrix to determine what provincial government agencies need to be notified. ➤ Notify the provincial oil and gas regulator. The CER has Memorandums of Understandings with some provincial oil and gas regulators. As required, the provincial oil and gas regulator may provide response resources (manpower and equipment) from their field centres/offices to support the CER. ➤ Refer to the appropriate provincial Incident, Spill, and Release Reporting Requirements for any provincial/territory or Canadian Environmental Protection Act spill and release reporting requirements.
Serious Injury
<p>A serious injury includes an injury that results in:</p> <ul style="list-style-type: none"> ➤ A fracture of any bone, except simple fractures of fingers, toes or the nose. ➤ Lacerations that cause severe hemorrhage or nerve, muscle or tendon damage. ➤ An injury to an internal organ. ➤ Second or third degree burns, or any burns affecting more than 5% of the body surface. ➤ A verified exposure to infectious substances or injurious radiation. ➤ An injury that is likely to require hospitalization. <p>(Source: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2014-37/FullText.html)</p>

Canadian Environmental Protection Act (E2) Reporting Requirements

These reporting requirements are set out by Environment Canada; however, notification and reporting of emergencies is through provincial and territorial authorities. Refer to the following link for list of all provincial and territorial authorities: (<https://www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/contacts-province.html>)

When an environmental emergency (i.e. a spill of a hazardous substance) occurs that involves a listed substance (as per Schedule 1 – List of Substances <http://gazette.gc.ca/rp-pr/p2/2019/2019-03-06/html/sor-dors51-eng.html>) at a fixed facility, any person who owns or has the charge, management or control of a substance or causes or contributes to the environmental emergency must take a number of actions as soon as possible.

These include:

- Calling the 24-hour telephone services in the respective province or territory where the release occurs
- Taking all measures to respond to the environmental emergency and reduce any impacts on the environment or human health
- Making a reasonable effort to contact any member of the public who may be affected by the environmental emergency
- Submitting a written report through ECCC's Single Window Interface: <https://ec.ss.ec.gc.ca>

Transport Canada Reporting Requirements - If a spill or anticipated spill occurs during the transportation or handling of a Transportation of Dangerous Goods regulated products where the volume exceeds those specified at <https://www.tc.gc.ca/eng/canutec/emergencies-reporting-411.htm>, the spill must be immediately reported to the local police and the provincial or territorial authority. Refer to the following link for a list of all provincial and territorial authorities: (https://www.tc.gc.ca/eng/canutec/emergencies-reporting-411.htm#_How_to_make).

Department of Fisheries and Oceans Canada (DFO) Reporting Requirements - If there is a release into a water body of any substance hazardous to fish, contact DFO Central and Arctic Region (only if fish bearing water body) at 204-983-5000. In most cases where the release enters a waterbody, the provincial regulator will notify DFO.

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8.2 Government Involvement

Government agencies will contribute valuable support to Plains Midstream Canada (PMC) during an emergency by providing advice, resources and local information. The extent of the regulatory agencies and other government support will vary depending on the severity of the incident and jurisdiction. In the event of criminal activities or incident in an office setting, support and response coordination may be taken over by local authorities.

While there are procedures and responsibilities that are specific to each provincial and federal regulatory body, there are common government agency tasks that occur regardless of location:

- Respond to and assess the incident.
- Determine the appropriate agency responses to the incident.
- Ensure the lead agency has been notified.
- Activate any agency-specific municipal emergency plans (MEP).
- Activate agency-specific incident facilities (Ex. ICP, MEOC, etc.), if required.
- Activate field staff as needed.
- Activate the emergency public warning system to alert people to life threatening hazards, as required.
- Deploy representatives to Provincial Operations Centre (POC) if activated and/or required.
- Deploy personnel to the Incident Command Post (ICP) and/or Emergency Operations Centre (EOC) if requested and/or appropriate with all appropriate equipment as needed.
 - As appropriate, may be a member of unified command.
 - Fulfill a role within the Incident Management Team, as necessary.
- 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.
- Cooperate with other agencies to increase support to the response.
- Participate in any public-at-large communication, as applicable.
- Coordinate news releases with the licensee, if required.
- Inform Emergency Management & Fire Safety and the public when the emergency is over.

8.2.1 General Communication Expectations

To ensure all responders – company and government - are able to effectively coordinate actions it is critical for communication to be clear, concise, and timely. Initial notifications to first responders (911) and the lead regulatory body must occur immediately once the incident has been verified. Additional notifications to other lead agencies, supporting agencies and local authorities must be made once the ERP has been activated and additional incident details identified. Required emergency government agency notifications are outlined within each respective provincial government matrix.

The lead regulatory body will be responsible for the industry regulation and oversight; this will be dependent on the location and type of incident, as well as the company asset impacted. The lead and supporting agencies may be engaged by the lead regulatory agency; however, it is PMC policy to make all additional notifications to ensure that the appropriate agencies have been contacted. All federal and/or provincial requirements, agencies, roles and responsibilities, applicable to the ERP are further outlined within the respective subsections in this section.

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8.3 Government Notification Matrix

8.3.1 Ontario Government Notification Matrix

Agencies or Resource		Initial Responders		Lead Agencies and Priority Contacts							Support Agencies & Other Government Contacts																	
		Ambulance Services	Local Fire Department	Local Police	CER - Canada Energy Regulator	TSB - Transportation Safety Board Ontario	EMO - Emergency Management Ontario	Ministry of the Environment Conservation and Parks - Spills	Local Authorities	CANUTEC	DFO - Department of Fisheries and Oceans	NAV CANADA	Ministry of Labour	TSSA - Technical Standards and Safety Authority	ESA - Electrical Safety Authority	ECCC - Environment & Climate Change Canada	Ontario Ministry of Northern Development, Natural Resources and Forestry	Ministry of Transportation	Ministry of Health and Long-term Care Health Unit	WSIB - Workplace Safety and Insurance Board	ERAC - Emergency Response Assistance Canada	CHEMTREC	IOGC - Indian Oil & Gas Canada	PEAS - Pollution Emergency Alerting System (Michigan)	DEQ - Department of Environmental Quality (Michigan)	Bureau of Fire Services (Michigan)	NRC - National Response Centre (US Federal)	
Incident Type	Sour Hydrocarbon or HVP Release	a	✓	b	c	✓	✓	d	✓	e	f	g	h		i	j	k	l	m				p	q	r	s	t	
	LVP Hydrocarbon Liquid Release	a	✓	b	c	✓	✓	d	✓	e		g	h		i	j	k	l	m				p	q	r	s	t	
	Toxic Material Release	a	✓	b	c	✓	✓	d	✓	e		g	h		i	j	k	l	m				p	q	r	s	t	
	Sweet Hydrocarbon Release	a	✓	b	c	✓	✓	d	✓	e		g	h		i	j	k	l	m				p	q	r	s	t	
	Rail or Trucking Incident	a	✓	b	c	✓	✓	d	✓	e		g	h		i	j	k	l	m	n	o		p	q	r	s	t	
	Pressure Vessel or Piping Incident			b	c	✓	✓	d	✓	e	f	g	h	✓			j	k	l	m				q	r	s	t	
	Fire / Explosion / B.L.E.V.E.	✓	✓	b	c	✓	✓	d	✓	e		g	h		i	j	k	l	m	n			p	q	r	s	t	
	Operation of Facilities Beyond Designed Limits			b	c	✓		d	✓	e		g	h				j	k	l	m								
	Serious Injury or Death (Including Vehicle Accidents)	✓	✓	b	c	✓							✓					k	l	m							s	t
	Motor Vehicle Accident (No Injuries)		✓															k										
	Missing Person		✓																									
	Electrical Incident			b	c	✓								✓					l	m								
	Security Incident (Bomb Threat, Terrorism, Civil Disturbance)		✓	b	c	✓	✓	d	✓	e		g					j	k	l	m								
	On-Site Incident Involving E2 Regulated Substance	a	✓	b	c	✓	✓	d	✓	e	f	g	h		i	j	k	l	m				p	q	r	s	t	

- NOTE: Anytime the company contacts the public, in addition to the local authorities (counties/municipalities); it should also consider contacting the Local Police.
- a) Contact the local fire department if there is a potential for secondary fires. Industry fire fighters should be mobilized to fight industrial hydrocarbon fires.
 - b) The Ontario Energy Board (OEB) has no 24-hour emergency reporting protocol. Contact the Ministry of Community Safety and Correctional Services – Emergency Management Ontario (EMO), Ministry of Environment and Climate Change - Spills Action Centre, and the Ontario Ministry of Natural Resources and Forestry.
 - c) CER is a compulsory contact only for emergencies and near misses involving CER regulated sites and inter-provincial pipelines. Contact the CER through the TSB 24-hour emergency line for incidents occurring at operations regulated by the CER. Also complete the Online Event Reporting System (OERS) (electronically at <https://apps.cer-rec.gc.ca/ers>).
 - d) Contact for incidents that have a spill or impact the environment.
 - 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) If there is a release into a water body of any substance deleterious to fish, contact Fisheries and Oceans Canada (only if fish bearing water body).
 - g) Contact NAV CANADA if a Notice to Airmen (NOTAM) is required.
 - h) Contact Ontario Ministry of Labour if there is a potential for or actual serious injury to or death of workers (workplace-related issues).
 - i) Contact ECCC for incidents involving PCBs or any spills on First Nations Lands, in national parks, into river or lake systems having fish, or onto railway right-of-way. Canadian Environmental Protection Act (CEPA) Reporting Requirements occur through ECCC. Refer to the CEPA Incident, Spill, and Release Reporting Requirements.
 - j) Contact Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry for any incident that could affect forestry lands.
 - k) Contact Ontario Ministry of Transportation if the incident affects any highway. Rural roads are the responsibility of the local authority.
 - l) Contact Ontario Ministry of Health and Long-term Care if the incident could affect the health of the public.
 - m) Contact WSIB if the incident involves an injury or death (worker-related issues).
 - n) 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.
 - o) Plains has a contract in place with CHEMTREC, a 24/7/365 emergency call center that provides immediate information and assistance in the event of a chemical or hazardous material incident related to the transportation of dangerous goods.
 - p) 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.
 - q) Contact the Michigan Pollution Emergency Alerting System to report spills, releases, or other environmental emergencies involving: air, land, water, groundwater, wetlands, dams landfills, hazardous or radioactive materials, mines, public drinking water, oil and gas wells and nuclear power plants.
 - r) Contact the Michigan Department of Environmental Quality to report spills or releases of petroleum or hazardous substances on land or into water.
 - s) Contact the Michigan Bureau of Fire Services to report spills or releases of petroleum or hazardous substances on land or into water.
 - t) The National Response Center (NRC) is the designated federal point of contact for reporting all oil, chemical, radiological, biological and etiological discharges into the environment. Immediate notice to the NRC is required for any release that impacts water. Immediate notice to the NRC is required for any pipeline, LNG Facility, or underground natural gas storage facility release that results in any of the following: 1) An unexpected loss of more than 3 million cubic feet or more of gas. 2) Death or hospitalization. 3) \$50,000 or more in damages. 4) An emergency shutdown of an LNG or Underground Natural Gas Storage Facility. 5) Any impact to water. 6) Anything else the operator deems as a significant incident. Immediate notice to the NRC is required for any transportation incident that results in any of the following as a direct result of the hazardous material or waste 1) Death or hospitalization. 2) The general public being evacuated for more than 1 hour. 3) A major transportation artery or facility closed for more than 1 hour. 4) The flight pattern or routine of an aircraft being altered. 5) Fire, breakage or spillage of a radioactive or infectious substance. 6) The release of 450 litres or 450 kg of a marine pollutant. 7) Anything else the carrier deems as a continuing danger to life. CERCLA hazardous substances (defined in 40 CFR part 302) that are not part of the Petroleum Exclusion (as they are added after the refining process) that are released into the environment (not contained in a building), in quantities equal to or greater than their Reportable Quantities (RQs) must be reported to the NRC as per 40 CFR part 302. Note release of CERCLA hazardous substances must also be reported to the SERC, LEPC & TERC. The NRC notifies the pre-designated On-Scene Coordinator from the EPA (incidents impacting inland areas & waters) or U.S. Coastguard (incidents impacting coastal waters & great lakes) who will direct the federal government's response to the incident. If you cannot contact the NRC you can contact the EPA or US Coast Guard.

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8.4 Local Section

8.4.1 Emergency Services

(Local police, fire, ambulance and 911 call centre)

- Respond to and assess emergency incident.
- Participate in unified command, as appropriate.
- Communicate to municipal Emergency Operations Centre(s) and provide site reps as required.
- Assist with fire protection outside of company property, off-site and / or outside the EPZ where trained personnel are available.
- Provide emergency medical assistance, as required.
- Provide timely news releases, if required.
- RCMP/Local Police are involved with any incidents entailing traffic accidents, road closures, fatalities or criminal activity. The following support will:
 - Assists with isolating and securing the incident site, including traffic and crowd control.
 - Aids with evacuations.
 - Manages the closure of major highways.
 - Maintains law and order.

Note: Professional oilfield fire fighters should manage extensive fires or uncontrolled facility fires.

8.4.2 Local Authorities

Refer to the following Local Authorities for area specific mutual understandings regarding the specific roles and responsibilities for each local authority, if applicable.

The local authority will usually participate in any emergency that impacts or threatens land or residents outside the confines of company property.

Responsibilities

- Implements the rural municipality disaster or emergency plan.
- Provides local knowledge about conditions, resources (manpower and equipment) and the community.
- May assist with the establishment and administration of a Reception Centre if required.
- Ensures local emergency services are available to assist the emergency response team.

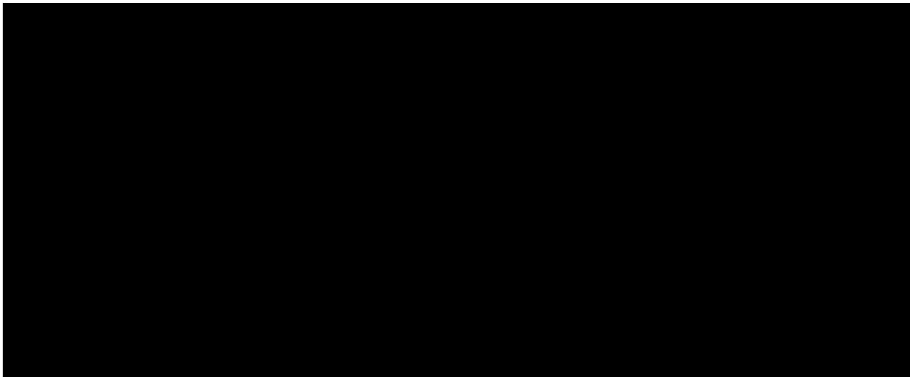
8.4.2.1 City of Windsor



ROLES AND RESPONSIBILITIES

Date: August 15, 2023
Local Authority: **City of Windsor**
Mailing Address: 815 Goyeau Street, Windsor, ON N9A 1H7
Main Office Number: 519-253-3016
Fax Number: 519-255-6832
Website: www.citywindsor.ca
24 Hour Number: 519-255-6478 or 519-258-4444 Emergency Pager

EMERGENCY MANAGEMENT CONTACT INFORMATION



ROLES:

Confirmation that your municipality will carry out the following duties to the best of its ability:

- Direct and control the Local Authority's emergency response in accordance with your Municipal Emergency Response Plan (MEP) / Community Emergency Management Program.
- Ensure emergency services and resources are available in accordance with the Local Authority's policies.
- Provide support in accordance with the Local Authority's policies.
- Assist with fire protection in accordance with the Local Authority's policies.
- If required, activates a Municipal Emergency Coordination Centre / Incident Command Post.
- If required, may dispatch representative(s) to Government and Plains Midstream Canada Emergency Operation Centre(s).
- If deemed necessary, may declare an emergency under the EMCPA, R.S.O. 1990, c. E.9.

RESOURCES:

- If requested and resources available, may assist with set up and maintenance of roadblocks until alternative personnel can be provided.
- Population ± 225,000.
- Level 3 HazMat Team.
- Mobile Incident Command Post shared with Windsor Police; 8 portable air monitoring stations, fire trucks equipped with thermal and infra-red imaging cameras, roadblock equipment, access to intrinsically safe drone.
- Mutual Aid Agreement exists between each individual municipality in Essex County and the City of Windsor. Stephen Laforet is Essex County Mutual Aid Coordinator. Windsor Fire Rescue Services Deputy Chief James Waffle and Lakeshore Fire Chief Don Williamson are alternate Mutual Aid Coordinators. County of Essex contact Dan Metcalfe, Emergency Measures Coordinator 519-776-6441 Ext. 1243 or 519-791-1917 dmetcalfe@countyofessex.ca.

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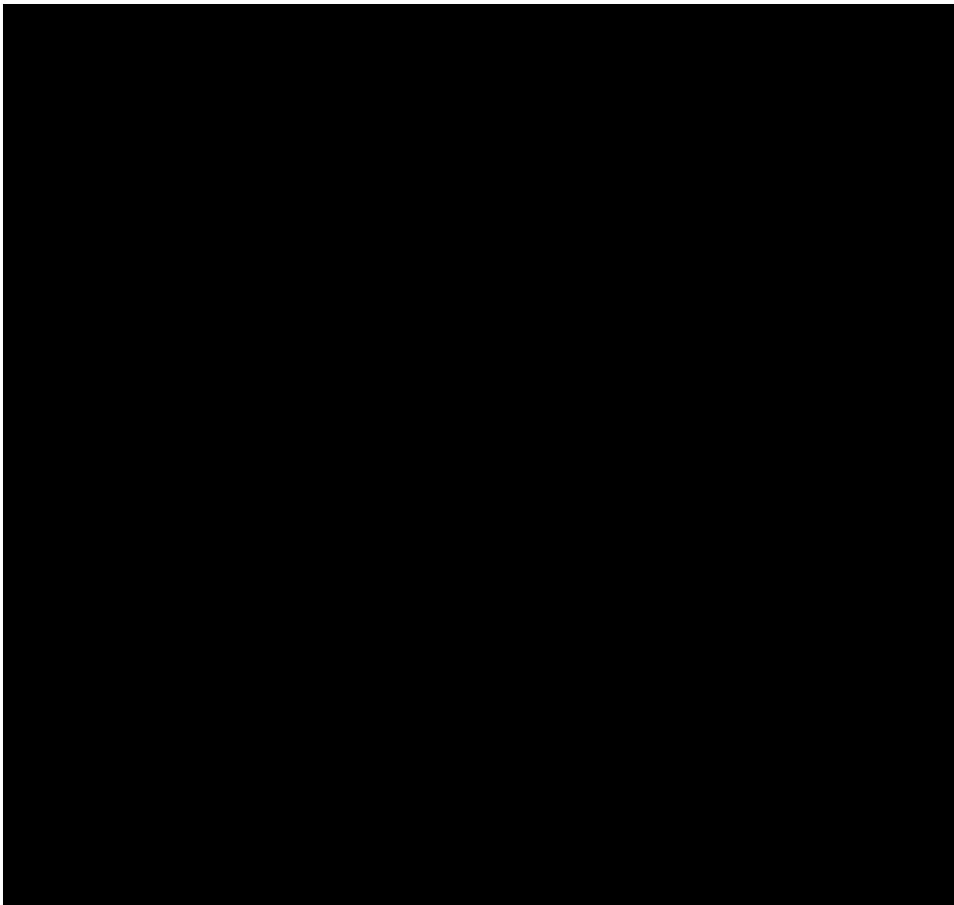
8.4.2.2 Windsor Port Authority



ROLES AND RESPONSIBILITIES

Date:	August 14, 2023
Local Authority:	Windsor Port Authority
Mailing Address:	3190 Sandwich Street, Windsor, ON N9C 1A6
Main Office Number:	519-258-5741 Ext. 211
Fax Number:	519-562-3032
Website:	www.portwindsor.com
24 Hour Number:	Windsor Police Services Dispatch 519-258-6111

EMERGENCY MANAGEMENT CONTACT INFORMATION



**Roles & Responsibilities
Windsor Port Authority Page 2**

ROLES and RESOURCES:

- Federal Regulator for the Eastern Area Pipeline in water, first response and environmental assistance along shoreline.
- Windsor Police, Ontario Provincial Police (OPP) and Windsor Fire and Rescue Services would be primary responders, assistance would be provided by the Windsor Port Authority. Windsor Police may provide traffic control and if necessary, evacuation. OPP would be called to assist if required; on water OPP may assist with closure or traffic control on the river.
- If required, may dispatch representative(s) to Government and Plains Midstream Canada Emergency Operation Centre(s).
- Response coordinated with the County of Essex.
- City of Windsor Emergency Management Coordinator is Chief Steve Laforet, Windsor Fire and Rescue Services 519-999-8141 slaforet@citywindsor.ca.
- Windsor Storage facility backs onto the Major FA Tilston Armoury & Police Training Centre. This is the home base for the Windsor Regiment, the Essex Scottish Regiment and the Service Battalion related to the Military. It is also the home of the Windsor Police Service Training Branch. There is a significant firearms and explosives range on site.
- The new Gordie Howe International Bridge will be alongside the pipeline and will have approximately 2,000 people working on site from 2021 to 2025. This will be a high-volume vehicle traffic bridge located beside the pipeline and Windsor Storage Facility. Hunter Kersey is the Director of Security for the bridge hkersey@bnacapg.com office 226-759-2392.
- Prefer ERP in electronic format.

8.5 Provincial Section

8.5.1 Emergency Management

8.5.1.1 Emergency Management in Ontario

In Ontario, the Ministry of the Solicitor General – Emergency Management Ontario (EMO) is the lead agency for the province on public safety and security, maintaining the physical and economic security of Ontario, by coordinating public safety initiatives among municipal, fire and emergency services organizations within and outside of Ontario.

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8.5.2 Worker Serious Injuries or Fatality

8.5.2.1 Ontario Worker Serious Injuries or Fatality

If workplace injuries or illnesses occur, the employer constructor, or mine or mining plant owner have the following duties to notify certain people:

- Where a person is killed or critically injured from any cause at a workplace, the constructor, if any, and the employer shall notify an inspector, and the committee, health and safety representative and trade union, if any, immediately of the occurrence by telephone or other direct means and the employer shall, within forty-eight hours after the occurrence, send to a Director and to the committee, health and safety representative and trade union, if any a written report of the circumstances of the occurrence containing such information and particulars as the regulations prescribe. [section 51(1)]
- If a person is disabled from performing his or her usual work or requires medical attention because of an accident, explosion, fire or incident of workplace violence at a workplace, but no person dies or is critically injured because of that occurrence, the employer shall, within four days of the occurrence, give written notice of the occurrence containing the prescribed information and particulars to the following:
 - The committee, the health and safety representative and the trade union, if any.
 - The Director, if an inspector requires notification of the Director. [section 52(1)]
- If an employer is advised by or on behalf of a worker that the worker has an occupational illness or that a claim in respect of an occupational illness has been filed with the Workplace Safety and Insurance Board by or on behalf of the worker, the employer shall give notice in writing, within four days of being so advised, to a Director, to the committee or a health and safety representative and to the trade union, if any, containing such information and particulars as are prescribed. [section 52(2)]
- If an accident, premature or unexpected explosion, fire, flood or inrush of water, failure of any equipment, machine, device, article or thing, cave-in, subsidence, rockburst, or other prescribed incident occurs at a project site, mine, mining plant or other prescribed location, the person determined under subsection (2) shall, within two days after the occurrence, give notice in writing with the prescribed information and particulars,
 - to the committee, health and safety representative and trade union, if any; and
 - to a Director, unless a report under section 51 or a notice under section 52 has already been given to a Director. [section 53(1)]

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8.5.3 Provincial Government Roles - Ontario

Government agencies contribute valuable support to a company during an incident by providing advice, resources (manpower and equipment) and local information. In order to avoid conflicts over authority and response priorities, company representatives need to work as a team with involved government agencies. Emergency response should achieve an integrated approach that protects the responders, the public and the environment. The extent of government support depends on the severity of the incident and jurisdiction.

Note: Names of government agencies frequently change.

8.5.3.1 Petroleum Regulatory Agency – Ontario Energy Board (OEB)

With respect to natural gas, the Ontario Energy Board (OEB) approves natural gas rates, issues gas marketer licenses, approves pipeline construction, approves designation of gas storage facilities, reviews applications for well drilling and provides recommendations to the Minister of Northern Development, Mines, Natural Resources and Forestry.

8.5.3.2 Ontario Pipeline Coordinating Committee

The Ontario Pipeline Coordinating Committee coordinates the Ontario government's review of natural gas facility projects in Ontario that require approval from the Ontario Energy Board (OEB). Its goal is to minimize negative environmental impacts that could arise from these projects by reviewing environmental assessments and routing reports prepared by the applicants before they apply to the Board to have projects approved.

The committee is made up of government ministries and agencies that have a role in reviewing natural gas transmission and distribution facility projects and is chaired by a staff member from the Ontario Energy Board (OEB).

8.5.3.3 Ministry of the Solicitor General – Emergency Management Ontario (EMO)

During an emergency, Emergency Management Ontario (EMO) supports the community response and coordinates provincial activities as required.

8.5.3.4 Ontario Ministry of the Environment, Conservation and Parks

The Ministry of the Environment, Conservation and Parks is responsible for promoting clean and safe air, land, and water to ensure healthy communities, ecological protection and sustainable development, as well as enforcing compliance with environmental laws.

8.5.3.5 Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry

Oversees Ontario's mineral sector, promotes economic development in Northern Ontario and the resource sector, protects biodiversity and supports outdoor recreation.

8.5.3.6 Ontario Ministry of Transportation

The Ministry of Transportation strives to be a world leader in moving people and goods safely, efficiently and sustainably to support a globally competitive economy and a high quality of life.

8.5.3.7 Ministry of Health and Long-Term Care

The Ministry of Health and Long-Term Care is working to establish a sustainable public health care system in Ontario and is based on helping people stay healthy, delivering good care when people need it, and protecting the health system for future generations.

8.5.3.8 Ministry of Labour, Immigration Training and Skills Development

The Ministry of Labour, Immigration Training and Skills Development works to prevent workplace injuries and illnesses, promoting and enforcing employment standards, helping settle workplace disputes and collective agreements, supporting apprenticeships, the skilled trades, industry training and employment services in Ontario.

8.5.3.9 Technical Standards and Safety Authority (TSSA)

Technical Standards and Safety Authority (TSSA) promotes and enforces public safety in three key sectors: Boilers and Pressure Vessels and Operating Engineers, Elevating Devices, Amusement Devices and Ski Lifts, Fuels. The Boilers and Pressure Vessels (BPV) Safety Program regulates all pressure-retaining components manufactured or used in Ontario to ensure boilers, pressure vessels and piping systems conform to the Technical Standards and Safety Act, 2000.

8.5.3.10 Electrical Safety Authority (ESA)

The Electrical Safety Authority (ESA) is the administrative authority mandated by the Government of Ontario to enhance public electrical safety in the province.

8.5.3.11 Workplace Safety and Insurance Board (WSIB)

The Workplace Safety and Insurance Board (WSIB) is an independent trust agency that administers compensation and provides no-fault collective liability insurance and access to industry-specific health and safety information.

8.5.3.12 Home and Community Care Support Services

Formerly Local Health Integration Networks (LHINS), Home and Community Care Support Services has been condensed into 5 regions. They are responsible for ensuring the health services funded under their structure can continue to deliver health services during an emergency. They engage health organizations – also known as transfer payment agencies – to coordinate emergency response activities and tasks. These organizations include public and private hospitals, Community Care Access Centres (CCACs), community support service organizations, mental health and addiction agencies, community health centres (CHCs) and long-term care homes.

Depending on the scope of the emergency and health support needs, coordination across multiple regions may be required. Coordination tables can be used to support this process with status reports to the MEOC. Cross-region action plans to prioritize response activities are developed with established mechanisms to coordinate actions across multiple boundaries.

8.6 Federal Section

8.6.1 Federal Agency Notifications

All pipelines that cross a provincial/country boundary are administered by the Canada Energy Regulator (CER). The CER is the regulatory authority that controls emergency response planning and actions within their jurisdiction. The CER has Memorandums of Understandings with some provincial oil and gas regulatory authorities. As required, the provincial oil and gas regulatory authority may provide response resources (manpower and equipment) from their field centres/offices to support the CER.

If an emergency occurs at a CER regulated operation, the regulated company involved will initiate its emergency response plan and follow the Incident Reporting Requirements.

For storage tanks regulated under the Canadian Environmental Protection Act, Part 8 of the Act requires that an enforcement officer or any other person designated by regulation or interim order be provided with a written report concerning an environmental emergency. The final Regulations designate the Regional Director, Environmental Enforcement Directorate, Enforcement Branch, Department of the Environment, in the region where the environmental emergency occurs.

The final Regulations specify that a written report of an environmental emergency is only to be submitted if the release has or may have an immediate or long-term harmful effect on the environment, constitutes or may constitute a danger to the environment on which life depends, or constitutes or may constitute a danger in Canada to human life or health. This precision is intended to help clarify the criteria that trigger the need for a written environmental emergency report. If there is any doubt as to whether the incident is a reportable environmental emergency, the incident should be reported to the Department.

8.6.2 Federal Government Roles

8.6.2.1 Canada Energy Regulator (CER)

The Canada Energy Regulator (CER) regulates inter-provincial and international pipelines, energy development and trade in the Canadian public interest. The CER's goal is to see to it that CER regulated facilities and activities are safe and secure and the environment is protected throughout their lifecycles.

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.

For additional details, refer to the Canada Energy Board (CER) Onshore Pipeline Regulations (SOR/99-294 – Last Amended March 16, 2020).

8.6.2.2 Transportation Safety Board of Canada (TSB)

The Transportation Safety Board's (TSB) 24-hour hotline number provides a single window for reporting all occurrences to the Canada Energy Regulator (CER), Natural Resources Canada and RCMP as necessary. The incident reporting protocol requires that all incidents associated with CER regulated pipelines be reported using this single window approach through the TSB. This allows the TSB to collect data for evaluation and is intended to simplify the reporting procedure. All incidents and hazardous occurrences must be reported to the TSB within 24 hours. The TSB then forwards all information to the CER. This process meets the Canadian Labour Code regulations for reporting.

The TSB is an independent agency created to advance transportation safety through the investigation of occurrences in the marine, pipeline, rail, and air modes of transportation. A 'transportation occurrence' is any accident or incident associated with the operation of a ship, pipeline, railway rolling stock, or aircraft.

The TSB and Transport Canada (TC) are separate and distinct organizations. Transport Canada is concerned with developing and administering policies, regulations, and services for transportation systems in Canada with respect to marine, rail, and aviation. This differs from the TSB mandate of advancing transportation safety in the marine, pipeline, rail, and air modes of transportation through the conduct of independent investigations, the identification of safety deficiencies, and the making of recommendations to eliminate or reduce such deficiencies.

Another key difference between the TSB and TC is that TC reports to the Federal Minister of Transport, while the TSB reports to Parliament through the President of the Queen's Privy Council for Canada. This reinforces and demonstrates the TSB's independence from regulatory bodies.

8.6.2.3 Canadian Environmental Protection Act (E2)

Environment Canada requires any petroleum operator who has charge, management or control of substances in excess of threshold limits listed in Schedule 1 of the Canadian Environmental Protection Act to:

- Submit notices (some periodic) to inform ECCC of compliance with the regulatory requirements
- Prepare an Environmental Emergency Plan (E2 Plan) and review and update it, if necessary, at least once per year
- Bring the E2 Plan into effect to make sure the facility is ready to respond to an accidental release
- Conduct simulation exercises of the E2 Plan each year, a more extensive simulation exercise every five years and prepare a record after each exercise to be kept for a minimum of 7 years
- Keep a copy of the E2 Plan readily available at the facility and other places where it is needed

8.6.2.4 Environment & Climate Change Canada (ECCC)

Environment & Climate Change Canada's Environmental Emergencies Program (EEP) protects Canadian and their environment from the effects of environmental emergencies through provision of science-based expert advice and regulations.

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.
- Provide specialized advice in shoreline clean-up assessment techniques (SCAT).
- Provide Advise on mitigation and cleanup measures.

8.6.2.5 Canadian Department of Fisheries & Oceans (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.

8.6.2.6 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
- Enroute Flight Information Services
- Remote Aerodrome Advisory Services (RAAS)
- As requested by the licensee, the Flight Information Centre will issue a NOTAM (Notice to Airmen).

8.6.2.7 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.

8.6.2.8 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.

8.6.2.9 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 affect 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 regard 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. In Alberta Region, ISC-RO holds a comprehensive 10-year service agreement with Alberta Emergency Management Agency, through which First Nations in Alberta are supported in the four pillars of emergency management.

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.

8.6.2.10 Indian Oil & Gas Canada (IOGC)

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 IOGC's 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 and Indian Oil and Gas Regulations, 1995, as well as other relevant legislation and guidelines (see Acts and Regulations). 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>

8.6.2.11 Transport Canada

Canadian Transport Emergency Centre (CANUTEC)

- Regulate the handling, offering for transport and the transport of dangerous goods by all modes in order to ensure public safety.
- Maintain a 24 hour emergency telephone service.
- Federal regulations require that CANUTEC be contacted in the event of an incident or accident involving dangerous goods and infectious substances.
- Maintains records of over 3 million Safety Data Sheets (SDS).
- 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.
- Maintain voice communication and written information records for two years for the protection of all parties.

Aviation Operations Centre (AVOPS)

- To close air space beyond an airport (e.g. above a sour gas release), AVOPS can be contacted by the licensee.
- Rescind the NOTAM and re-open air space that was closed due to emergency.

8.6.2.12 Public Safety Canada

- 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).
- 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.
- 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.

8.6.2.13 Royal Canadian Mounted Police (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.

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8.7 Mutual Aid

8.7.1 Emergency Response Assistance Canada (ERAC)

Emergency Response Assistance Canada (ERAC) is an organization that provides a Transport Canada approved Emergency Response Assistance Plans (ERAP) to its members. PMC has an active membership.

In the event of a road, rail or stationary vessel incident (≥ 450 litres) emergency involving Liquefied Petroleum Gas (LPG), PMC, as required, can call Emergency Response Assistance Canada (ERAC) for advice and support of an LPG-related emergency. Documentation with any shipment will contain a Transport Canada Permit Number and contact numbers for Emergency Response Assistance Canada (ERAC) emergency activation. The table below outlines PMC Emergency Response Assistance Plans (ERAP):

ERAP Number	Type of Transport	Emergency Number	Product covered under ERAP
ERAC Emergency Response (LPG ERAP)			
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
ERAC Emergency Response (Flammable Liquids ERAP)			
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

8.7.2 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 hazardous materials regulations and provide immediate critical response information for emergency incidents involving chemicals, hazardous materials and dangerous goods.

Additionally, a guide was developed to aid first responders in responding to a dangerous goods incident. Refer to 4.5: Transportation of Dangerous Goods and the 'Emergency Response Guidebook (ERG) – 2020 (ERG2020)'.

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9.1 Regulatory Description

The Windsor Storage Facility is regulated by the Canada Energy Regulator (CER) as some of pipelines leaving the Facility cross the Canada/United States Border. The Windsor Storage Facility ERP has been created to meet the Onshore Pipeline Regulations (SOR/99-294 – Last Amended March 16, 2020).

The on-site storage tanks / caverns located at Windsor Storage Facility are regulated under the Canadian Environmental Protection Act, 1999 as the substances stored (Isobutane, Butane, Ethyl Mercaptan, Propane and Ethane) are in excess of the threshold limits listed in Schedule 1. Therefore, an Environmental Emergency Plan (E2 Plan) is required for the Windsor Storage Facility and is included as part of Section 9.14 to meet Environment and Climate Change Canada Environmental Emergency Regulations, 2019: SOR/2019-51. These storage tanks have been assigned a 460 metre (calculated) E2 EPZ.

The Windsor Storage Facility Site-Specific Section is to be used in conjunction with the PMC Core Emergency Response Plan.

9.2 General Area Information

9.2.1 Overview

The Windsor Storage Facility is a natural gas liquids storage and pipeline terminal facility. It is located on approximately 149 acres of land within the Windsor city limits. The terminal consists of nine storage caverns, five brine ponds, the Eastern Delivery System (EDS), as well as product dehydration facilities, propane and butane tank loading cars, propane and butane tank car offloading, and propane truck loading equipment. The terminal is staffed with approximately eight employees and the terminal is operational 24 hours a day however, the site can be operated un-manned.

The terminal is constructed to meet contractual feedstock storage requirements. It presently receives designated batches of butane, propane, and ethane for storage and redistribution into pipeline or distribution loading racks. The 10" Eastern Delivery System (EDS) - North line to Sarnia, ON is operated as bi-directional batching lines for shipment to multiple Sarnia facilities and is covered by a separate Emergency Response Plan called the Eastern Area Pipeline ERP.

The EDS-South Pipeline transports light hydrocarbon liquids bi-directionally from PMC Windsor to facilities in Michigan. The Midland Control Centre operates the EDS-S Pipeline from their local control centre.

Kinder Morgan's Utopia pipeline transports ethane through Windsor Terminal into PMC's WSP pipeline and (via slipstream) into Windsor cavern storage. The Utopia pipeline terminates in a fenced compound, which is located in the northwest corner of the Windsor facility.

PMC's Windsor-Sarnia Pipeline (WSP) transports ethane from the Utopia pipeline to NOVA's Corunna Plant near Sarnia, ON. Windsor Terminal's dedicated WSP pumps provide upstream pressure as required.

The cavern storage at Windsor consists of nine underground caverns in a salt bed, approximately 1200 to 1500 feet (365m to 455m) below the surface. All caverns are of the brine displacement type.

9.4 Alarms and Communications

9.4.1 Warning Systems

[Redacted text block containing multiple paragraphs of information under the heading 9.4.1 Warning Systems]

Warning Systems on Affected Buildings or Structures Will Be Activated as Follows:	Alarm Activated By:	Visible in the Following Locations:
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

9.4.2 Communications Infrastructure

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Telephone Communications

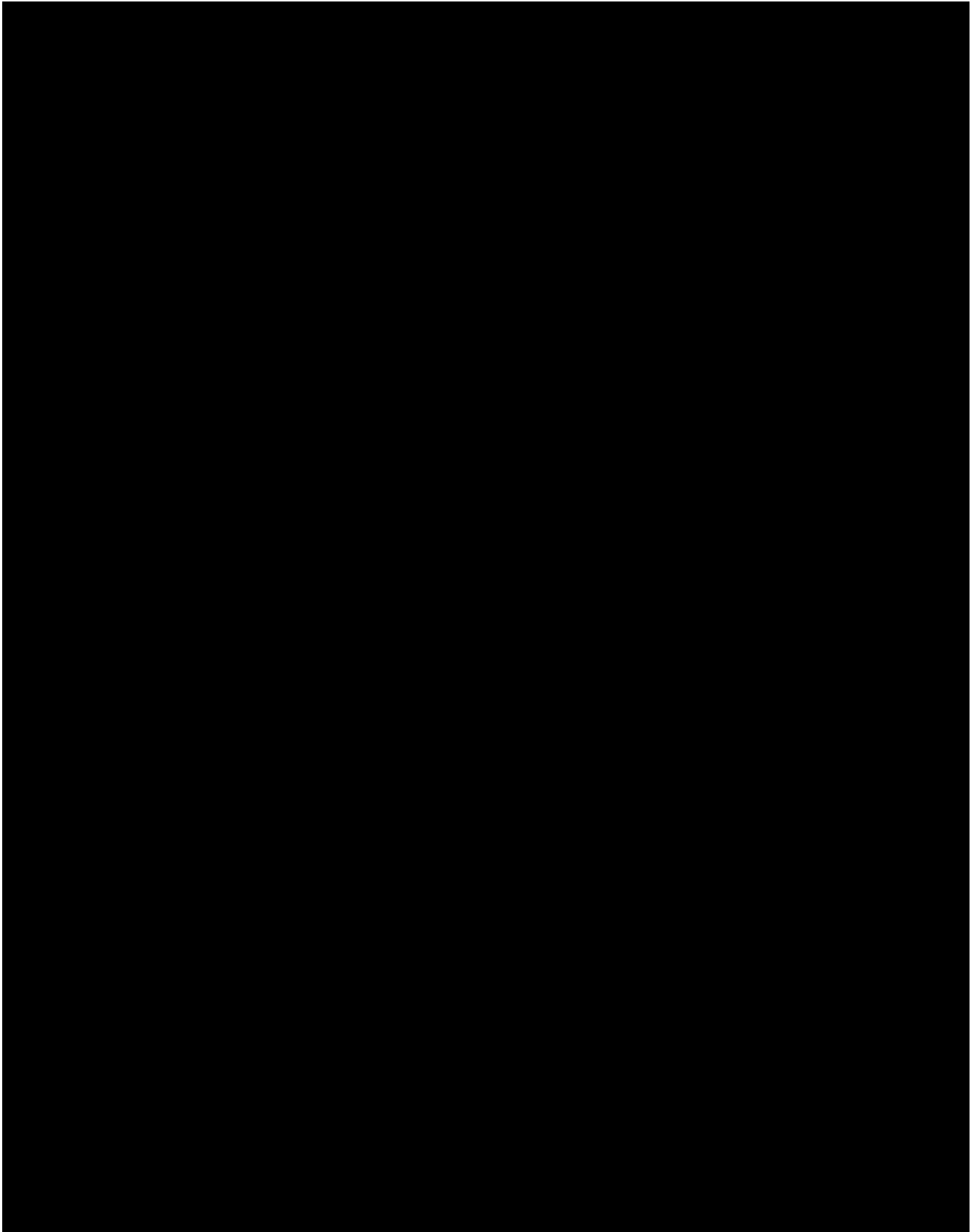
[Redacted]

9.4.3 Muster Points

At the Facility

See the Maps Section later in this Area Specific Section.

9.4.3.1 Gate Access / Emergency Muster Plan



9.4.4 Facility Evacuation

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] personnel would proceed to the identified secondary Incident Command Post location per Section 9.7.4.

9.4.5 Emergency Shut Down (ESD) System

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

9.5 Equipment Lists and Locations

9.5.1 Equipment Lists

Located at the PMC Windsor Storage Facility:

NOTE: The Windsor Storage Facility is manned through the night with an operator who has ready access to all of the equipment. If a pipeline technician were at a block valve location in (or closer to) Windsor and needed access to this equipment, they would approach the main gate at the Windsor Plant and press the button on the intercom button to ring into the control room. The Windsor operator would then meet the pipeline technician at the gate or remotely open the gate to allow them entry to the site and access to the equipment.

Equipment Type	Quantity	Location
General Equipment		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
First Aid		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Fire Extinguishers		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
Supplies in the Control Room		
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	
[REDACTED]	[REDACTED]	
[REDACTED]	[REDACTED]	
[REDACTED]	[REDACTED]	

9.5.5 Roadblock Kits

Roadblock Kits	Quantity	Location
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>[REDACTED]</p>

9.5.6 Ignition Kits

Ignition Equipment	Quantity	Location
<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>[REDACTED]</p>	<p>[REDACTED]</p>

9.5.7 PMC Response Equipment

If required, services will be acquired from Eastern Canada Response Corporation (ECRC) and/or GHD.

9.7 Common Telephone Directory

9.7.1 PMC 24-Hour Emergency Line

PMC Corporate 24-Hour Emergency Number (Olds Operational Control Centre)	[REDACTED]
PMC Windsor Control Room	[REDACTED]
PMC Midland (Texas) Control Center	[REDACTED]

9.7.2 Internal Emergency Telephone Numbers

Name	Telephone Numbers
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

9.7.3 Local Responders

All Local Responders listed below can respond in the key roles within the Incident Command System (ICS). Response position would depend on the complexity and location of the incident.

Name	Title	Business	Cellular
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Note: Additional responders may be mobilized by using the PMC local area contact list and the Incident Command System (ICS) being part of the Core training requirement at PMC.

Name	Title	Business	Cellular
Associated Plants			
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

9.7.4 Incident Command Posts (ICPs)

Location	Address	Custodian Name	Telephone Number	
			Facility	Custodian
Primary				
PMC Windsor Office	4300 Matchette Road Windsor, ON	-	[REDACTED]	-
Secondary				
Holiday Inn & Suites Windsor	1855 Huron Church Rd. Windsor, ON	-	[REDACTED]	-

Note: As required, if the PMC Windsor Office is located inside the Emergency Planning Zone (EPZ), PMC will relocate the Incident Command Post (ICP) to a safe location. One of the hotels listed below maybe utilized.

9.7.5 Reception Centres

Location	Address	Custodian Name	Telephone Number	
			Facility	Custodian
Hampton Inn & Suites	1840 Huron Church Road Windsor, ON	-	[REDACTED]	-
Holiday Inn & Suites Windsor	1855 Huron Church Road Windsor, ON	-	[REDACTED]	-

Note: The role of the Reception Centre is as a registration and inquiry centre for evacuated public. It is not used as a location where evacuees are housed.

9.7.6 First Responders

Agency	Location	Telephone Number
Ambulance/Fire/Police	Ontario-Wide	911
Air Ambulance <u>Note:</u> Air ambulance services are coordinated through: local land ambulances, Central Ambulance Communication Centres (CACC)/Ambulance Communications Services (ACS).		
Municipal Fire Departments	Ontario-Wide	911
City of Windsor <ul style="list-style-type: none"> • Station #1 • Station #2 • Station #3 • Station #4 • Station #5 • Station #6 • Station #7 	Windsor, ON	519-253-6573
Ontario Provincial Police (OPP)/Local Police (Sarnia/Windsor)	Ontario-Wide	911
To report an emergency in the USA from Canada, dial 1-810-985-8115 to get the USA 911 operator.		
Windsor Police Service	Windsor, ON	519-258-6111
Hospitals	Ontario-Wide	911
Windsor Regional Hospital Metropolitan Campus Ouellette Campus	Windsor, ON	519-254-5577 Ext. 52222 519-973-5577 Ext. 34401

9.7.7 Lead Agencies

FEDERAL

The PMC Windsor Storage Facility is regulated by the Canada Energy Regulator (CER).

Notes: If an emergency occurs on a CER-regulated operation, the regulated company involved will initiate its emergency response plan. The company will immediately contact the TSB's Hot Line to report all pipeline incidents and occurrences and complete the CER/TSB Online Event Reporting System (OERS) at <https://apps.cer-one.gc.ca/ERS/Contact/Edit>.

Through the provincial reporting method, courtesy notification should be given to the provincial regulator.

Agency	Location	Telephone Number
Canadian Energy Regulator (CER)		
Transportation Safety Board of Canada (TSB) 24-Hour Emergency Hot Line Note: First lead agency call to be made	Ottawa, ON	1-819-997-7887
24-Hour CER Incident Cellular Telephone Note: If unable to reach the TSB Hot Line, call this contact	Calgary, AB	403-299-2773

ONTARIO

Note: If an emergency occurs in Ontario at this CER-regulated operation, PMC will initiate a courtesy notification to the Ontario Energy Board (OEB) and also notify the other Ontario lead agencies listed below.

Agency	Location	Telephone Number
Ontario Energy Board (OEB)		
Daytime Only – Non-Emergency Line	North America-wide	1-877-632-2727
<u>Note:</u> The Ontario Energy Board (OEB) has no 24-hour emergency reporting protocol. Contact the Ministry of Community Safety and Correctional Services – Emergency Management Ontario (EMO), Ministry of Environment and Climate Change - Spills Action Centre, and the Ontario Ministry of Natural Resources and Forestry.		
Ministry of the Solicitor General – Emergency Management Ontario (EMO)		
24-Hour Emergency	Ontario-wide	1-866-517-0571
Ministry of Environment and Climate Change - Spills Action Centre		
Environmental and Spill Reporting Line 24-Hour Emergency	Ontario-wide	1-800-268-6060

9.7.8 Local Authorities

Agency	Location	Telephone Number
City of Windsor Office (Daytime Only)	Windsor, ON	519-255-2489
City of Windsor – Emergency Management 24-Hour Emergency (Fire department) Fire and Rescue Dispatch (Emergency Pager) Windsor Fire Chief Windsor Assistant Fire Chief	Windsor, ON	911 519-253-6573 519-253-3016, Ext. 3753 519-253-3016, Ext. 3722
Port of Windsor		
Peter Berry Harbour Master - Windsor Port Authority	Windsor, ON	519-258-5741 Ext. 211 519-562-3032
Sue Garrett-Burrell– Staff Sergeant		519-255-6700 226-348-3694
Jamie Smith – Staff Sergeant		519-735-2424 519-999-0342

9.7.9 Supporting Agencies

Note: Depending upon the type of incident, PMC will initiate notification to the following federal and provincial supporting agencies.

Agency	Location	Telephone Number
Ministry of Labour, Immigration, Training and Skills Development		
Toll-free	Ontario-wide	1-877-202-0008
Office		905-577-9774
Technical Standards and Safety Authority (TSSA)		
Office - Monday to Friday from 8:00 a.m. to 5:00 p.m. (excluding major holidays)	Ontario-wide	1-877-682-8772
Electrical Safety Authority (ESA)		
Office	Ontario-wide	1-877-372-7233
Ministry of Natural Resources and Forestry		
Office Wildlife Management Units: 94A	Ontario-wide	1-800-667-1940
Ministry of Transportation		
Office	Ontario-wide	1-800-268-4686
Ministry of Health and Long-term Care – Health Units		
Windsor-Essex County Health Unit Toll-free	Windsor, ON	519-258-2146 1-800-265-5822
Workplace Safety and Insurance Board (WSIB)		
Office Toll-free	Ontario-wide	416-344-1000 1-800-387-0750
Environment Canada & Climate Change - National Environment Emergencies Centre		
<u>Note:</u> Refer to Section 8: Government Agencies and Local Authorities, in the PMC Core Emergency Response Plan, for the Ontario Incident, Spill, and Release Reporting Requirements, which identifies who, what, where, when, why and how an environmental emergency is to be reported.		
Environment and Climate Change Canada- Spills Action Centre	Ontario-wide	1-800-268-6060
Agency	Location	Telephone Number
CANUTEC ¹		
<u>Note:</u> As required, in the event of an emergency involving dangerous goods, call CANUTEC.		
24-Hour Emergency	Ottawa, ON	1-888-CAN-UTEC (226-8832) 613-996-6666 *666
If using cellular		
Information		613-992-4624

¹ CANUTEC is the Canadian Transport Emergency Centre operated by the Transportation of Dangerous Goods (TDG) Directorate of Transport Canada. This is a federal emergency service based in Ottawa, ON. CANUTEC provides immediate reference for information on chemical spills and will also advise on methods to safely neutralize, decontaminate, approach or handle dangerous substances.

Agency	Location	Telephone Number
Department of Fisheries and Oceans Canada (DFO) <u>Note:</u> If there is a release into a water body of any substance deleterious to fish, contact Fisheries and Oceans Canada (only if fish bearing water body).		
24-Hour Emergency	Canada-wide	1-800-265-0237
Transport Canada <u>Note:</u> Programs (Airports, Harbours and Ports, and Environmental Services) - Includes Airport Capital Assistance Program, airport leases, Port Divestiture Funding, management of public port facilities, environmental assessments, environmental remediation, etc.		
Ottawa Situation Centre 24-Hour Emergency	Ottawa, ON	1-888-857-4003
Office (Daytime only)	North York, ON	416-952-0490
NAV CANADA (NOTAM – Notice to Airmen)		
24-Hour Emergency	Canada-wide	1-866-992-7433 ²
Canadian Coastguards		
Located in Amherstburg	519-736-5449	1-800-265-0237

9.7.9.1 United States – Cross Border Contacts

Agency	Location	Telephone Number
Michigan Pollution Emergency Alerting System (PEAS)	Michigan-Wide	1-800-292-4706
Michigan Department of Environmental Quality (DEQ)	Michigan-Wide	517-284-7272 1-800-292-4706 (Petroleum or Hazardous substances from USTs on land or into water)
Michigan Bureau of Fire Services	Michigan-Wide	517-241-8847 (Petroleum or hazardous substances from USTs on land or into water)
National Response Centre	USA-wide	1-800-424-8802 (National Response System and staffed 24 hours a day by the U.S. Coast Guard)

² One common toll-free phone number automatically directs you to a Flight Information Centre in the service area from which the call originates.

9.8 External Support Organizations

9.8.1 Spill Co-Op Information

Refer to Environmental Service Companies (Spill Response/Cleanup) in Support Services Section 9.9.

9.8.2 Mutual Aid

Organization	Telephone Number
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

9.8.3 Utilities

Utility	Telephone Number
Essex Power – Enwin Utilities (24 –Hour Emergency)	519-255-2727
Independent Electricity System Operator (IESO)	416-967-7474
Enbridge Gas	1-877-969-0999

9.8.4 Other Organizations

Organization	Telephone Number
CHEMTREC <u>Note:</u> PMC also has a contract in place with CHEMTREC, a 24/7/365 emergency call center that provides immediate information and assistance in the event of a chemical or hazardous material incident related to the transportation of dangerous goods.	1-800-424-9300

Organization	Location	Telephone Number
Ontario Poison Centre	Ontario-wide	1-800-268-9017
Ontario One Call (Click or call before you dig.)	Ontario-wide	1-800-400-2255

9.9 Support Services

Company ³	Location	Telephone Number
Aviation Support		
Skywatch	Ashland, OH	419-606-0370
Zimmer Air Services Inc.	Blenheim, ON	1-800-665-5485
Construction Companies		
B & D Insulation/Sarnia Construction Association	Sarnia, ON	519-344-5287 519-381-9050
Chemfab Industries Inc.	Corunna, ON	519-862-1433
Curran Contractors Ltd.	Sarnia, ON	519-332-3610
GHD	Waterloo, ON	519-884-0510
Vollmer Inc (Heavy Construction)	Windsor, ON	519-966-6100
LamSar Industrial Contractors Inc.	Sarnia, ON	519-332-5010
Murray Mills Excavating	Sarnia, ON	519-332-8923
Sterling Crane	Sarnia, ON	519-481-0522
Diving Companies		
ASI Group Ltd	Stoney Creek, ON	905-643-3283
Diving Services	Peterborough, ON	705-740-6088
O.D.S. Marine Construction	Greenly, ON	613-821-3988
Emergency Equipment		
T.D. Williamson Inc.	Georgetown, ON	1-800-828-1988 905-873-2272
TEAM Industrial Services	Sarnia, ON	519-344-9999
Electrical Service Companies		
Langtree Controls	Sarnia, ON	519-344-6868
Siemens Canada Ltd. (24 Hr. Emergency #)	Sarnia, ON	1-888-303-3353
Mellon Inc.	Sarnia, ON	519-332-0211
Rorison Industrial Electric	Windsor, ON	519-969-5270
Environmental Laboratories		
AGAT Laboratories	London, ON	519-652-6826
Bureau Veritas	London, ON	1-800-268-7396 519-652-9444
Caduceon Environmental Laboratories	Windsor, ON	519-966-9541
Lambton Scientific	Sarnia, ON	519-344-4747
ORTECH Consulting	Sarnia, ON	519-336-3327

³ Engage Supply Chain for approved vendors.

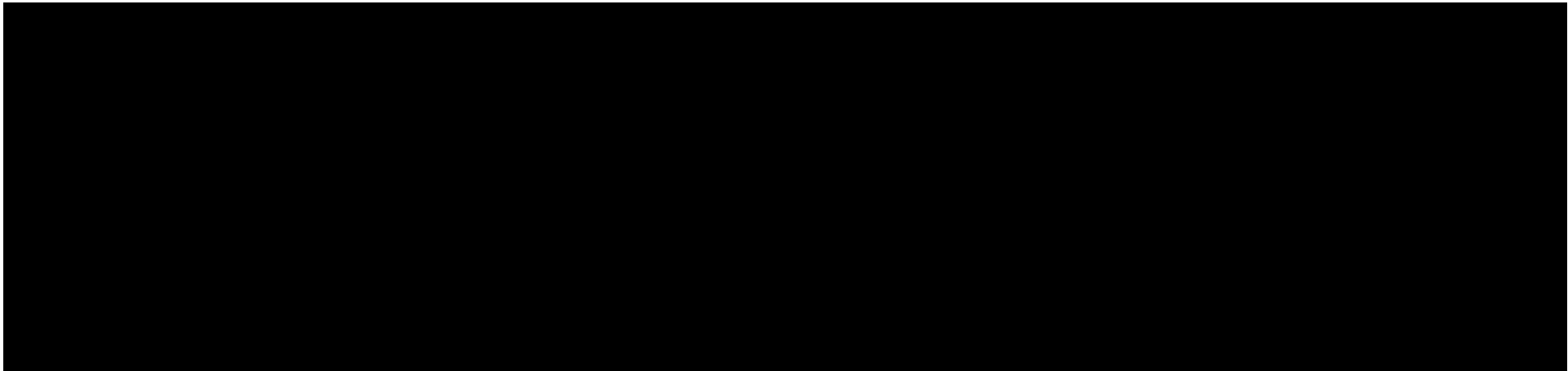
Company ³	Location	Telephone Number
Environmental Service Companies (Spill Response/Cleanup)		
Clean Harbors Canada Inc.	Sarnia, ON	1-800-645-8265 519-864-1021
Eastern Canada Response Corporation (ECRC)	Corunna, ON	519-862-2281
Environmental Services Inc.	Tilbury, ON	1-888-682-2900
GHD	Waterloo, ON	519-884-0510
Golder Associates	Windsor, ON	519-250-3733
Waste Management of Canada	Ontario-wide	1-800-665-1898 519-542-8442
SWAT Consulting Inc.	Strathmore, AB	1-866-610-7928
Firefighting (Industrial)		
Levitt-Safety Ltd.	Sarnia, ON (Daytime only)	519-336-8531
	Sarnia, ON (After hours)	1-888-453-8488
HSE Integrated Ltd.	Central Dispatch	1-866-346-8260
	Sarnia, ON	519-332-0044
	Stoney Creek, ON	905-664-0777
Hotels / Motels		
Hampton Inn & Suites	1840 Huron Church Road Windsor, ON	519-972-0770
Holiday Inn Hotel & Suites Windsor	1855 Huron Church Road Windsor, ON	519-966-1200
Mobile Air Monitoring Services		
GHD	Waterloo, ON	519-884-0510
HSE Integrated Ltd.	Sarnia, ON	1-888-346-8260 519-332-0044
ORTECH Consulting	Sarnia, ON	519-336-3327
Safety Services		
AECOM	Barrie, ON	705-721-9222
HSE Integrated Ltd.	Central Dispatch	1-866-346-8260
	Sarnia, ON	519-332-0044
	Stoney Creek, ON	905-664-0777
Total Safety	Sarnia, ON	519-337-6181
Blackline Safety Operations Centre (SOC)	Calgary, AB	1-877-869-7212
Vacuum Trucks		
Badger Daylighting Inc.	Sarnia, ON	519-332-7011
Clean Harbors Canada Inc.	Sarnia, ON	1-800-645-8265 519-864-1021
Envirosystems Inc.	Corunna, ON	519-862-4591
Valves		
Cameron Valves & Measurement	Sarnia, ON	519-332-0446
Team Industrial Services	Sarnia, ON	519-344-9999
Lambton Alloys	Sarnia, ON	519-339-9733
Professional Valve Service	Sarnia, ON	519-336-3933

9.10 Technical Data

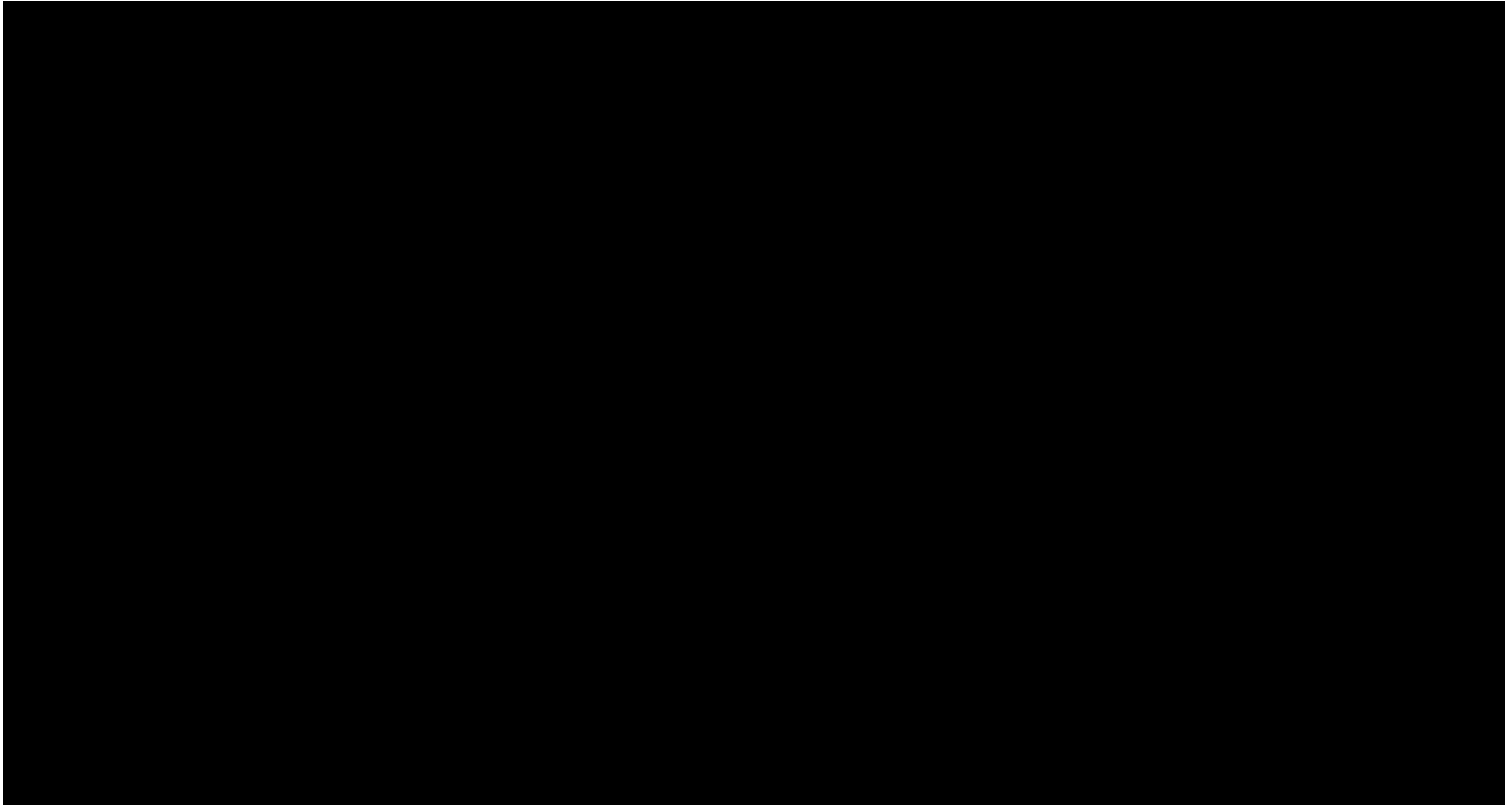
9.10.1 Pipelines

This section is not applicable to the WSF ERP. Refer to the Eastern Area Pipeline ERP for additional information.

9.10.2 Facilities



9.10.3 Wells / Caverns



9.10.5 Major Accident Risk (MAR) Scenarios

This section is not applicable to the WSF ERP

9.11 Public Information Handout (PIH)

Potential Health Effects from HVP Products Exposure

Skin	Irritation of skin may occur and progress to dermatitis. One component, benzene, may be absorbed through the skin.
Eyes	Irritation of eyes may occur.
Breathing	Breathing mists or vapours may cause accumulation in the lungs and/or central nervous system depression, dizziness, headaches, giddiness, drowsiness, fatigue, nausea, unconsciousness or death.
Swallowing	Swallowing mists or vapours may cause accumulation in the lungs and/or central nervous system depression, dizziness, headaches, giddiness, drowsiness, fatigue, nausea, unconsciousness or death.
Long-term Hazards	Defatting and drying of skin may occur and cause dermatitis. Inhalation of one component, benzene, has been associated with blood disorders including anemia and leukemia. Repeated exposure to high vapour concentrations may cause eye and respiratory irritation, giddiness, staggered gait, nausea, abdominal pain, loss of appetite, liver damage, kidney damage, and damage to the bone marrow including cancer.

Potential Health Effects from LVP Products Exposure

Skin	This product is a moderate skin irritant and repeated or prolonged contact may defat the skin.
Eyes	This product is a moderate eye irritant and could cause (days) impairment to your vision.
Breathing	Potential effects target the Central Nervous System, liver and kidneys. The benzene component is a known human carcinogen that may result in aplastic anemia and leukemia. Symptoms may include coughing, itchy throat, dizziness and drowsiness.
Swallowing	If ingested, abdominal cramping, vomiting and diarrhea may occur. Aspiration of liquid into the lungs may cause chemical pneumonia, severe lung damage.
Chronic Effects	Potential chronic effects include peripheral neuropathy and blurred vision. Chronic exposure has resulted in aplastic anemia, acute myoblastic leukemia, bone marrow depression, corneal vacuolization erythroleukemia, and even death.
Carcinogenicity	Known Carcinogen NTP. Known Human Carcinogen IARC Group 1 proven and Confirmed Human Carcinogen ACGIH A1. Ethylbenzene is classified as a Possible Carcinogen IARC 2B.

Response Considerations

Health, Safety and Environment
Plains adheres to the highest health, safety and environmental standards throughout our organization. We provide a workplace that protects the health and safety of our employees, contractors and the communities surrounding our facilities.

Plains' operations are subject to stringent federal, provincial and local laws and regulations governing the discharge of materials into the environment or otherwise related to protecting the environment.

Our Health, Safety and Environment (HSE) Management Programs are at the core of our operations. These programs include management commitment and leadership, employee training and awareness, inspections and audits, performance and achievement recognition, emergency preparedness and response, communications and continuous improvement.

Notification

If you are contacted by Plains Midstream Canada to advise you of an emergency situation, the caller will:

- Identify themselves by name.
- Announce that they are a Plains Midstream Canada representative.
- Describe the problem and what is being done.
- Give you instructions to protect your safety (shelter / evacuation).
- Verify the information you have provided.
- Address any concerns which you may have.
- Provide a telephone number which you can call to get additional information.

Emergency Contacts

If you suspect a problem at a Plains facility in your area, please call Plains Midstream Canada's 24-hour Emergency Response number:

1-866-875-2554

emergency.management@plains.com

In the event of an emergency, Plains will be working with the Transportation Safety Board (TSB), Canada Energy Regulator (CER), and local authorities.

Transportation Safety Board of Canada (TSB)

24-hour Pipeline Emergencies Only 819-997-7887

Canada Energy Regulator (CER)

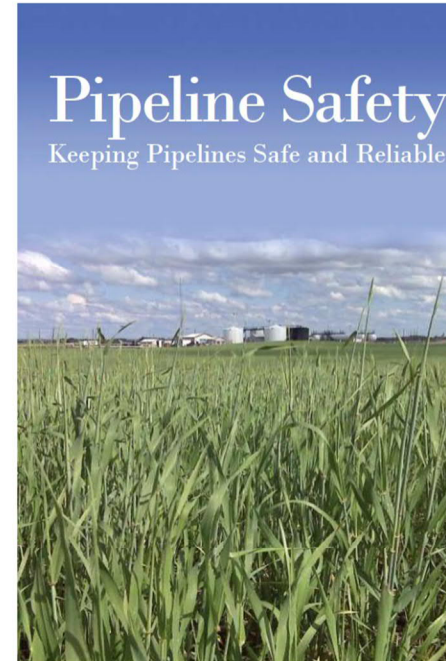
First call should be to the TSB (see above)

24-hour Non-Pipeline Emergencies 403-299-2773

Local Authorities

County of Essex	519-776-6441
Town of Tecumseh	519-735-2184
Town of Lakeshore	877-249-3367
Town of LaSalle	519-969-7770
County of Lambton	519-845-0801
City of Samia—Police Service	519-344-8861
St. Clair Township	519-867-2021
Municipality of Chatham-Kent	519-352-1234
City of Windsor	519-225-2489
City of Windsor—Emergency Management....	519-253-6573
Aamjiwnaang First Nations	519-336-8410

Ambulance/Police/Fire.....9-1-1



Public Awareness Information for landowners and area residents related to Plains Midstream Canada's Eastern Area Pipeline, Samia Fractionation Plant and Windsor Storage Facility.

- Emergency notification
- Public protection measures
- Pipeline safety: Ontario One Call (Click or Call Before You Dig)

JULY 2023

Our Operations In Your Area

Plains Midstream Canada ULC (Plains) is the operator of the Eastern Area Pipeline. The Eastern Area Pipeline bi-directionally transports a natural gas liquid (NGL) mix between the Plains Sarnia Fractionation Plant and Plains Windsor Storage Facility. The respective Emergency Planning Zone (EPZ) for the Eastern Area Pipeline is 1.6 km. Operation of the facilities (Sarnia Fractionation Plant and the Windsor Storage Facility) includes storage of NGL's which is classified as High Vapour Pressure (HVP) including condensates which is classified as Low Vapour Pressure (LVP). As these storage tanks contain substances in excess of threshold limits listed in Schedule 1 of the Canadian Environmental Protection Act (CEPA), an Environmental Emergency (E2) plans have been developed for the facilities to meet Environment and Climate Change Canada Environmental Emergency Regulations, 2019: SOR/2019-51. Included below is the calculated Emergency Planning Zones (EPZs), including the substances stored at each facility. Refer to the map on the back of this brochure for more details.

PMC Sarnia Fractionation Plant

E2 Regulated Substances: Crude Oil, Isobutane, Condensate, Ethane, Ethyl Mercaptan, Butane, NGL and Propane.
Emergency Planning Zone: 1200 m

PMC Windsor Storage Facility

E2 Regulated Substances: Propane, Butane, Ethyl Mercaptan, Ethane
Emergency Planning Zone: 460 m

High Vapour Pressure (HVP) Products

HVP products include propane, butane, pentane, and Natural Gas Liquids (NGLs). At atmospheric pressure, HVP products are gases. Under pressure, HVP products exist in a liquid state. In humid air, a leak of an HVP product may form a visible white cloud of cold vapour considerably heavier than air. Under extreme conditions, pools of super-cooled liquid may briefly form. When HVP products vapourize, they expand (70 to 300 times) and can form a plume, which may drift downwind from the source under moderate wind speed conditions. Under higher wind speed conditions, the vapour would dissipate faster.

Main Hazards:

- Potential explosion hazards from delaying ignition of drifting vapour cloud.
- Fire hazard from burning gas and radiant heat. Critical hazard because of oxygen deficiency as expanding gas cloud or plume displaces air at ground level.

Low Vapour Pressure (LVP) Products

LVP products are generally limited to hydrocarbon condensate which remains in a liquid state at atmospheric pressure. LVPs are heavier than air and collect in low places or depressions in the ground. LVPs are clear, pale golden flammable liquids with an odour similar to gasoline.

Main Hazards:

- Fire hazard and intense heat if condensate is ignited.
- Potential explosion hazards if condensate vapours seep into enclosed areas.
- Contamination of soil and water.
- Products can flow under snow or ice, making the actual spill area larger than it appears.
- Breathing mists or vapours may cause accumulation in lungs and/or central nervous system resulting in dizziness, headaches, depression, giddiness, drowsiness, fatigue, nausea, unconsciousness or death.

If You Suspect a Problem

Please call Plains Midstream Canada's 24-hour emergency number if you suspect a problem (1-866-875-2554).

While the chance of an uncontrolled spill or problem is remote, the Plains Emergency Response Plan (ERP) for this area is in place to ensure your safety. If a leak should occur, emergency crews will take immediate steps to minimize the risk to the public and environment.

Additional emergency response personnel will be notified and dispatched to the area to safely manage the emergency.



Plains Midstream Canada
24-hour Emergency Number
1-866-875-2554

Public Protection Measures

Evacuation and Shelter Procedures

Evacuation Procedures

If it is necessary to evacuate, you will be contacted by telephone immediately. If there is no answer to our calls, we will proceed to your residence to inform you of the situation. The following steps should be taken if "Evacuation" procedures have been implemented:

- Gather all residents and bring any medicines required.
- Lock all windows and doors.
- Turn down thermostat and shut off any air exchange fans to outside.
- Drive safely on the route provided and proceed directly to the evacuation centre and check in with the representative.
- Wait for further instruction.

Shelter-in-Place Procedures

If you are advised to stay sheltered, do not leave your house or attempt to start any vehicles until a Plains representative advises you that it is safe to do so. The following steps should be taken if "Shelter-in-Place" procedures have been implemented:

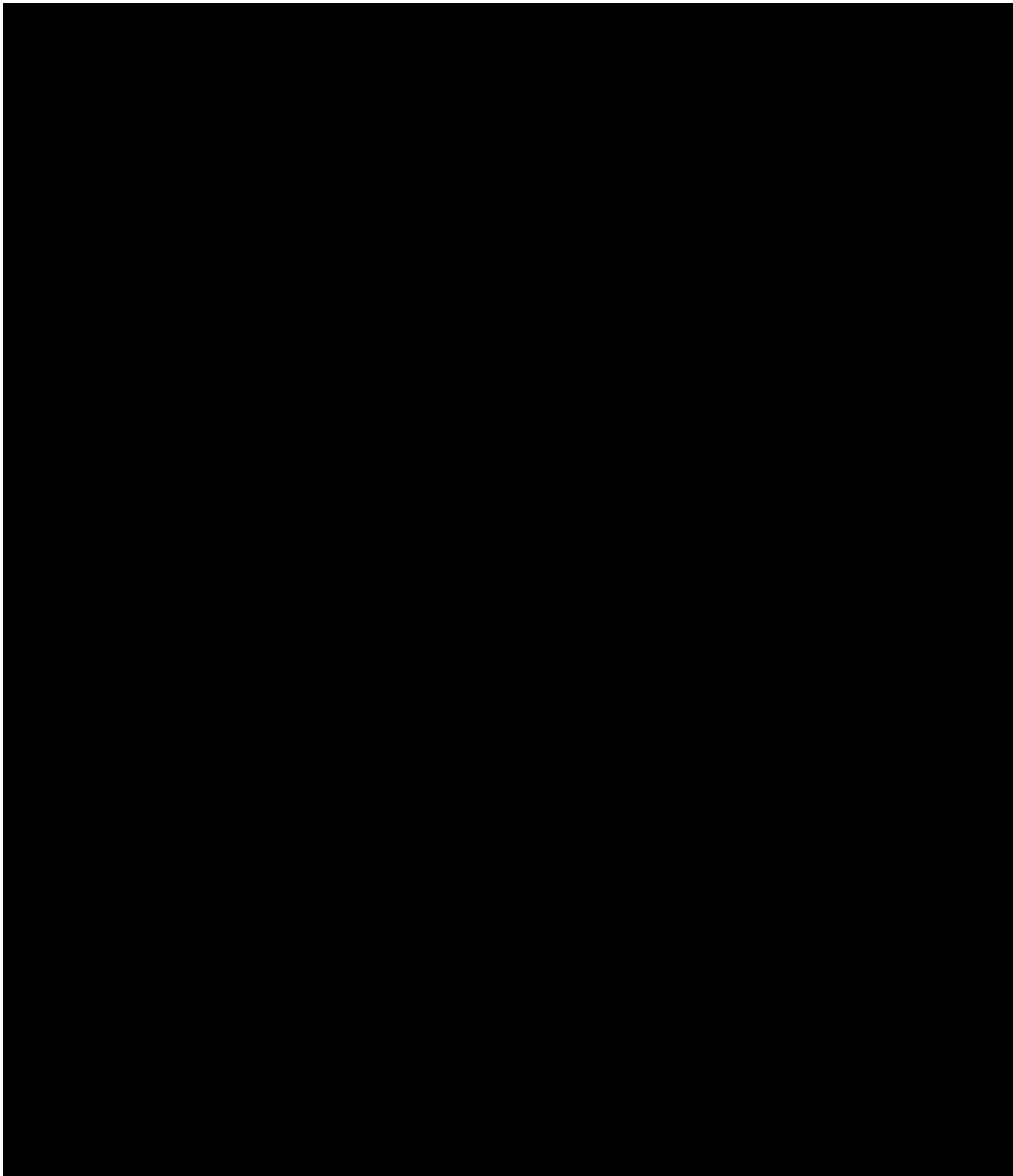
- Immediately gather everyone indoors and stay there.
- Tightly close and lock all windows and outside doors, if convenient, tape any gaps around exterior door frames.
- Extinguish indoor wood-burning fires and close flue dampers if possible.
- Turn off appliances or equipment that either blows out or uses indoor air, such as:
 - Furnaces, built-in vacuum systems, gas stoves, kitchen fans, clothes dryers, air conditioning, bathroom fans, gas fireplaces, ventilators.
- Turn off appliances or equipment that suck in outdoor air, such as:
 - Heating, ventilation, and air conditioning (HVAC) systems
 - Fans for heat recovery ventilators or energy recovery ventilators
 - Turn down furnace thermostats to the minimum setting, turn off air conditioners
- Leave all inside doors open.
- Wait in an interior room upstairs for further instruction.
- Avoid using the telephone, except for emergencies, so that you can be contacted by Plains emergency response personnel.
- Call Plains if you are experiencing symptoms, smelling odours or have contacted government agencies (so the response can be coordinated).
- Stay tuned to local radio and television for possible information updates.
- Even if you see people outside, do not leave until told to do so.
- If you are unable to follow these instructions, please notify Plains emergency response personnel.


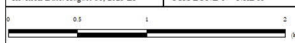


After the hazardous substance has passed through the area you will receive an "all-clear" message from Plains emergency response personnel. You may also receive, if required, instructions to ventilate your building by:

- Opening all windows and doors, turning on fans, 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 and operation.





<p>WINDSOR STORAGE FACILITY WINDSOR STORAGE FACILITY ERP</p>  <p>Draw Date: Mar 27, 2019 DS Scale: 1:50,000 Map: 8667 Revision Date: August 31, 2023 LS UTM ZONE 17 NAD83</p> 		<p>AREA OVERVIEW MAP 1:200,000</p> 		<ul style="list-style-type: none"> ■ Facility ▶ HOV/MOV ◀ Manual Valve — Third Party Pipeline — Oil Pipeline - - - Discontinued Oil Pipeline — Highway - - - Other Roads — Railway ■ Surface Development — Bridge ◆ Dead End × Locked Gate ■ Power Station ■ Recreation Area — Hydrology — Waterbody ■ Urban Area ■ Protected Area ■ Health Authority ■ Local Authority ■ RCMP ■ Wildlife Management Unit ■ PMC Facility Boundary ○ E2 EPZ ○ E2 Worst Case Zone ○ Other PMC System EPZ 	
<p>MAP PRODUCED BY  H2Safety h2safety.ca</p>					

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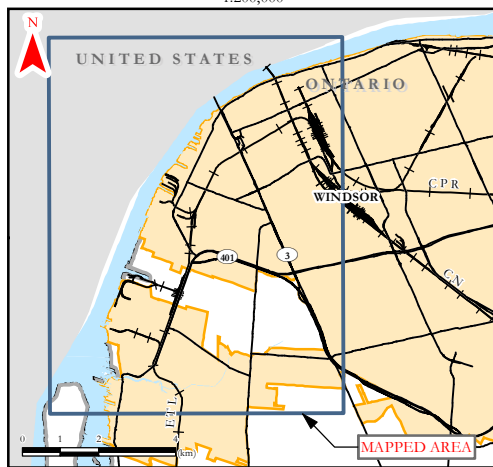
WINDSOR STORAGE FACILITY
WINDSOR STORAGE FACILITY ERP



Draft Date: May 27, 2019 DS Scale: 1:30,000 Map: 8667
 Revision Date: August 31, 2023 LS UTM ZONE 17 NAD83



AREA OVERVIEW MAP
 1:200,000

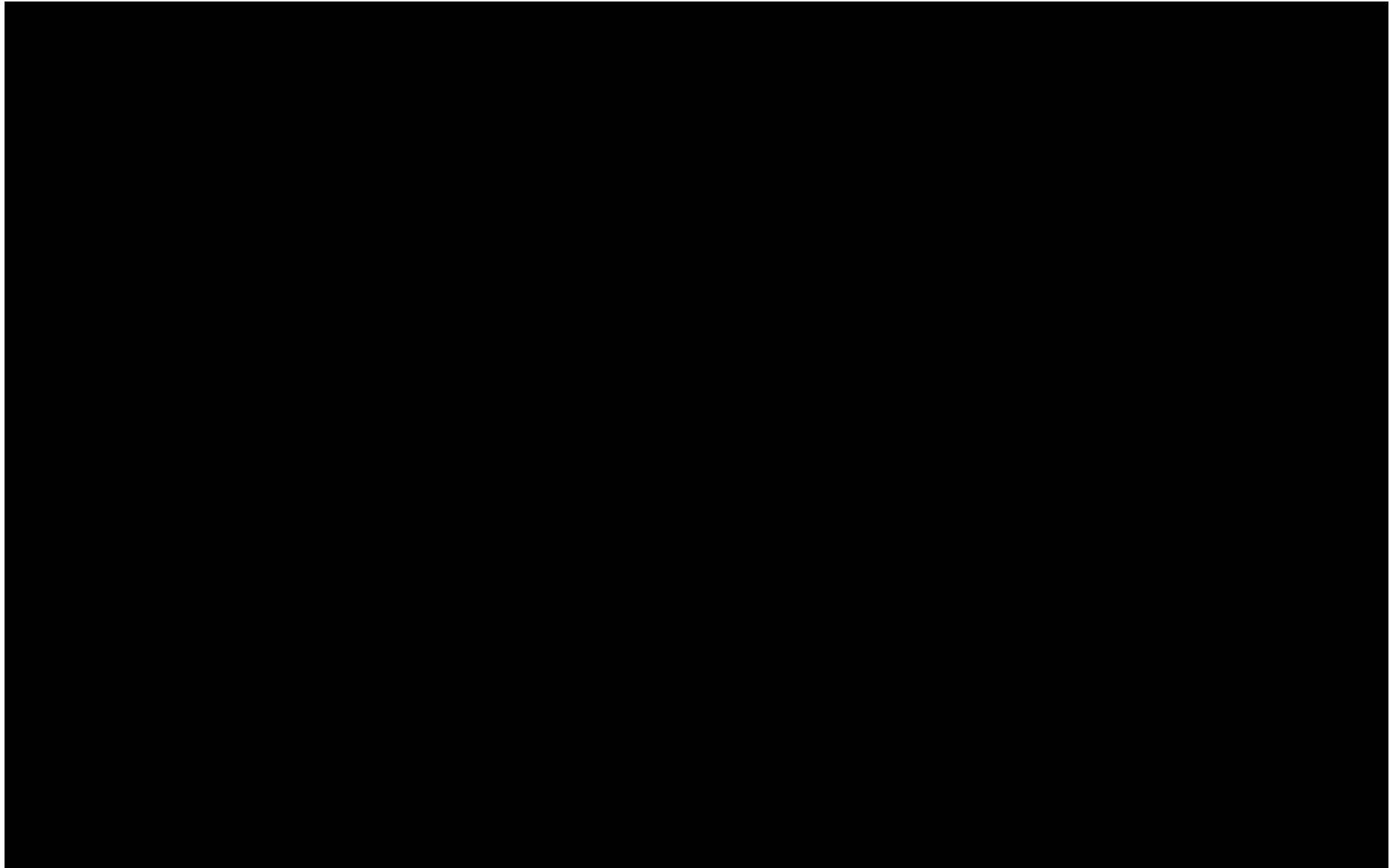


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| <ul style="list-style-type: none"> ■ Facility ▶ HOV/MOV ▼ Manual Valve — Third Party Pipeline — Oil Pipeline - - - Discontinued Oil Pipeline — Highway - - - Other Roads — Railway | <ul style="list-style-type: none"> ■ Surface Development ≡ Bridge ◆ Dead End × Locked Gate ■ Power Station Ⓜ Recreation Area — Hydrology — Waterbody ⊕ Urban Area | <ul style="list-style-type: none"> ■ Protected Area □ Health Authority □ Local Authority □ RCMP □ Wildlife Management Unit □ PMC Facility Boundary ○ E2 EPZ ○ E2 Worst Case Zone ○ Other PMC System EPZ |
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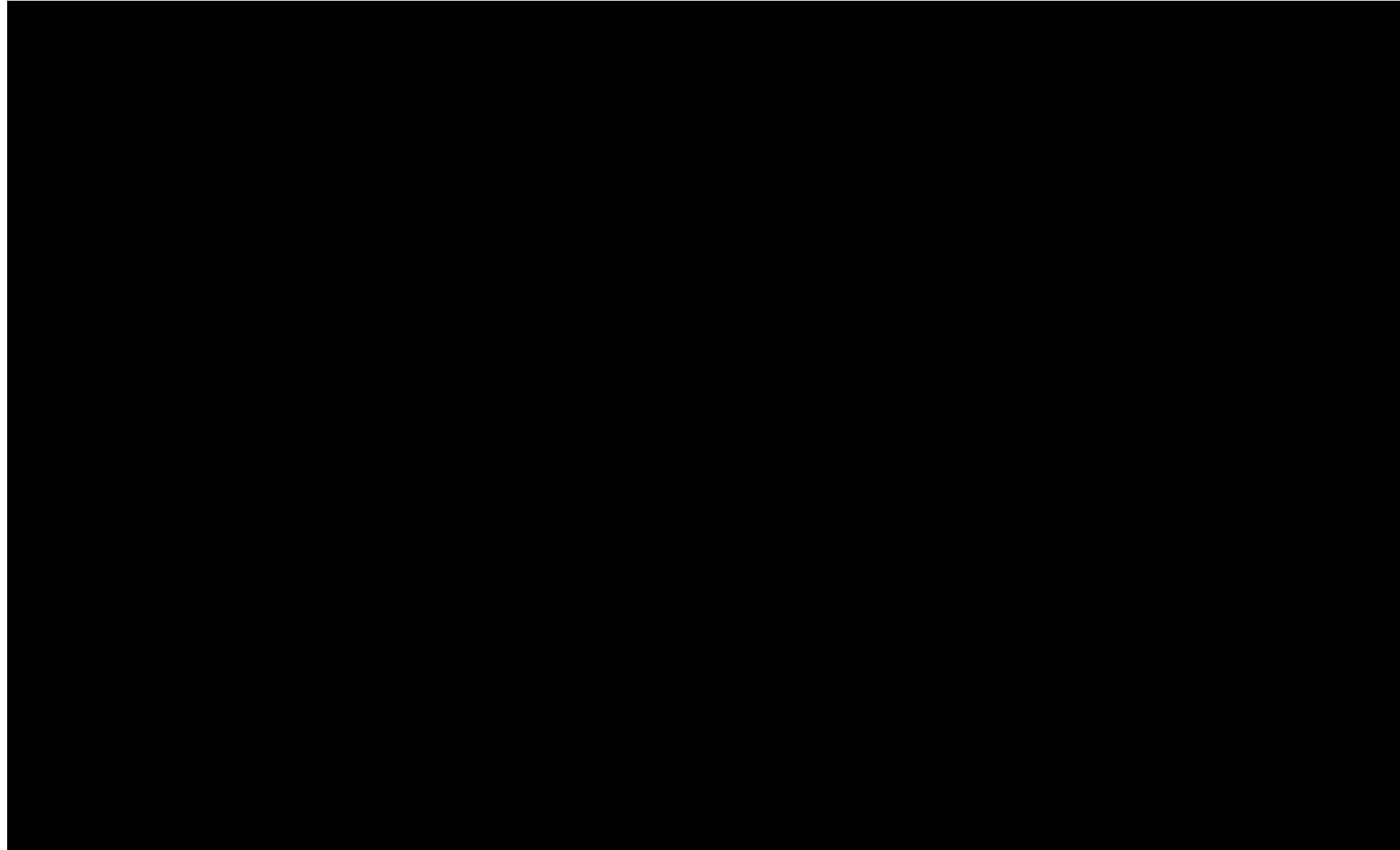
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9.12.2.2 WSF Product System Simplified Flow Schematic



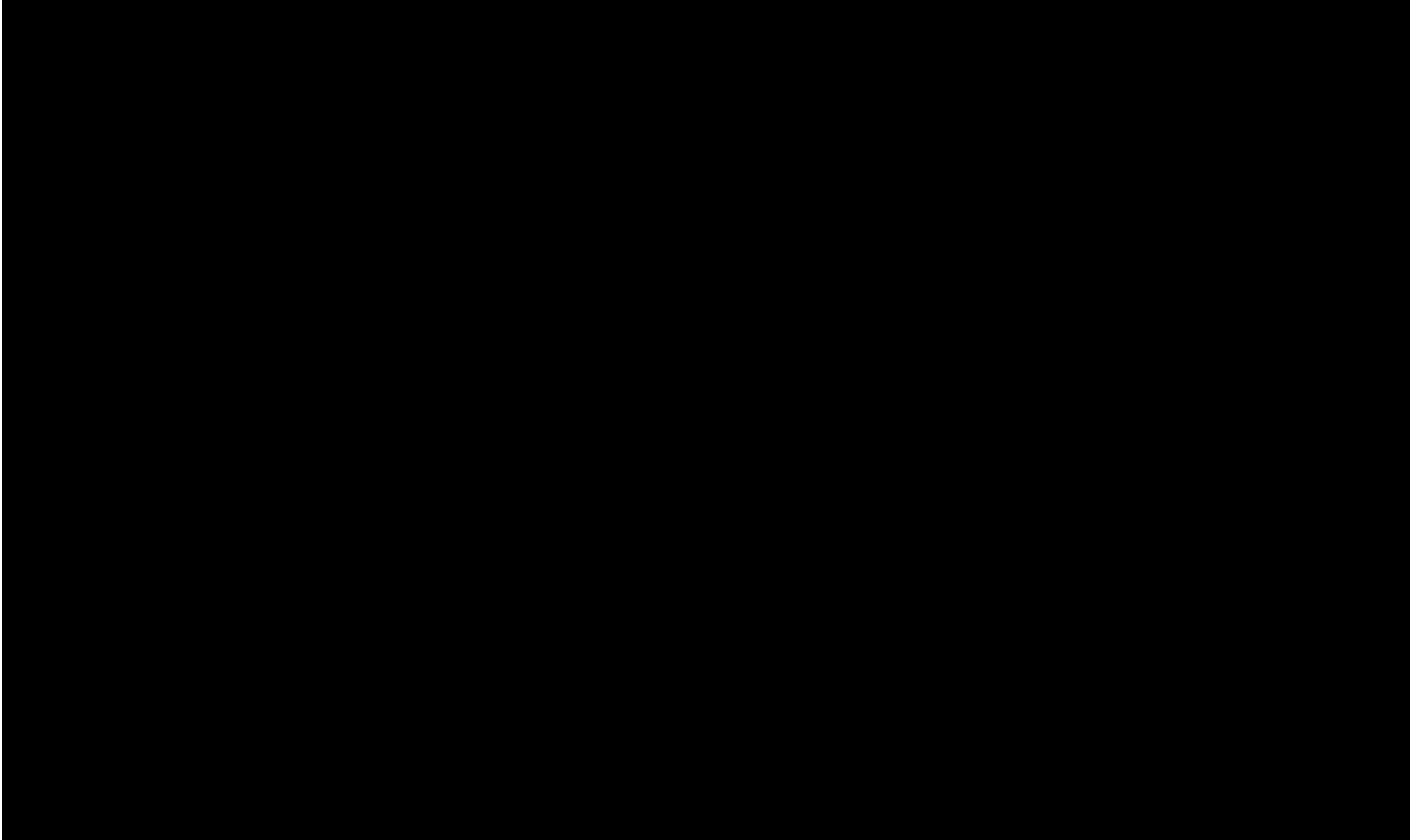
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9.12.2.3 Windsor Storage Terminal Process and Brine Area Plot Plan (Page 1)



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9.12.2.4 Windsor Storage Terminal Process and Brine Area Plot Plan (Page 2)



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9.13 Local Public Information

Industrial Operators

Company	Telephone
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Surface development information has not been included.

The Windsor Storage Facility is the only surface development within the 460 m E2 EPZ.

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SECTION 9.14: Environmental Emergency Plan **E2 ID#: 2418**

Overview..... 3

Location 3

Directions and Access..... 3

Environment and Climate Change Canada (ECCC) Regulated Substances 5

Characteristics of the Facility and the Surrounding Area 7

Response Considerations..... 8

Roles & Responsibilities..... 8

Training..... 9

Public Communication..... 10

Local Authority Communication 10

Facility Map and Plot Plan 11

Facility Site Section (11x17 Insert) 11

Substance Specific Properties & Emergency Management..... 11

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Overview

The on-site storage tanks located at Windsor Storage Facility are regulated under the Canadian Environmental Protection Act, 1999 as the substances stored (Isobutane, Butane, Ethyl Mercaptan, Propane and Ethane) are in excess of the threshold limits listed in Schedule 1. Therefore, an Environmental Emergency Plan (E2 Plan) has been prepared for the Windsor Terminal to meet Environment and Climate Change Canada Environmental Emergency Regulations, 2019: SOR/2019-51.

The Windsor Storage Facility is a natural gas liquids storage and pipeline terminal facility. It is located on approximately 149 acres of land within the Windsor city limits. The terminal consists of eight storage caverns, five brine ponds, the Eastern Delivery System (EDS), as well as product dehydration facilities, propane and butane tank loading cars, butane tank car offloading, and propane truck loading equipment. The terminal is staffed with approximately eight employees and the terminal is operational 24 hours a day however, the site can be operated un-manned.

Regulatory agency E2 Registration Reference:

Environment and Climate Change Canada (ECCC) – E2 ID #: 2418 (Windsor Storage Facility)

Note: In order to meet the Environment Canada and Climate Change Training and Simulation Exercise Requirements SOR/2019-51 – Section 7(1) (a) (b), Table Top Exercises must be performed annually for all E2 registered sites, including a more extensive simulation exercise every five years. Refer to the Training Section of this document for additional information.

Location

[Redacted location information]

Directions and Access

[Redacted directions and access information]

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Environment and Climate Change Canada (ECCC) Regulated Substances

Substances listed below meet the ECCC threshold for registration and an Environmental Emergency Plan under the Canadian Environmental Protection Act. It is not a complete list of all storage at the facility.

Substance Details	Name	Butane	Ethyl Mercaptan	Propane	Ethane
	ECCC Regulated Substance	Butane	Ethyl Mercaptan	Propane	Ethane
	CAS #	106-97-8	75-08-1	74-98-6	74-84-0
	UN #	1011	2363	1978	1035 & 1961
	ECCC Hazard Category	Explosive	Explosive	Explosive	Explosive
Quantity ¹	Cavern Volumes	35 - 218,762 m ³ B-7 - 62,055 m ³ E-5 - 55,383 m ³ I-4 - 52,538 m ³ P-8 - 67,908 m ³		32/33 - 383,220 m ³ E-3 - 76,923 m ³	E-1 - 65,816 m ³
	Tank Volumes	N/A	7.57 m ³	N/A	N/A
	Maximum Expected Quantity	274,757 tonnes (456,646 m ³)	6.40 tonnes (7.42 m ³)	267,842 tonnes (460,152 m ³)	35,808 tonnes (65,816 m ³)
	Single Largest Container Capacity	131,625 tonnes (218,762 m ³)	6.40 tonnes (7.42 m ³)	223,061 tonnes (383,220 m ³)	35,808 tonnes (65,816 m ³)
E2 EPZ (m)		432	160	460	351
E2 Worst Case Zone (m)		3200	300	2800	3400

¹Maximum expected quantity and largest container capacity in m³ for Butane, Ethyl Mercaptan, Propane and Ethane was calculated using the maximum expected quantity and largest container capacity in tonnes and the density of the pure substance (Butane, Ethyl Mercaptan, Propane and Ethane).

Notes:

- E2 Worst Case Zone: is the zone based on the full release of the Maximum Expected Quantity of the substance. This is considered the worst case scenario.
- E2 EPZ (Emergency Planning Zone): is the zone based on a more likely to occur scenario which includes a partial release of the substance. This is considered the alternate case scenario.
- The E2 EPZ is the zone used to define where Public Communication should take place prior to an Environmental Emergency.
- Additional information regarding the scenarios and modelling methodology can be found on the back of the Substance Specific Properties & Emergency Management pages located in the attachments.
- Refer to the 2020 Emergency Response Guidebook (ERG) or App for additional information on Initial Isolation and Protective Action Distances for spills and fire safety based on substance:
<https://www.tc.gc.ca/eng/canutec/emergency-response-guidebook.html>

Characteristics of the Facility and the Surrounding Area

ECCC Sensitive Receptors	Inside the E2 EPZ	Notes
Child care and educational facility(ies)	No	
Health care facility(ies)	No	
Senior citizen's and long-term facility(ies)	No	
Residential building(s)	No	
Commercial building(s) (e.g. shopping malls, restaurants)	No	
Fire station(s)	No	
Industrial building(s)	Yes	There are 2 oil and gas related facilities inside the EPZ: Plains Midstream Canada – 866-875-2554 Pembina Pipelines – 800-360-4706
Highway(s)	Yes	Highway 401 is inside the EPZ
Railway station(s) / Rail	Yes	Essex Terminal Railway Company runs through the EPZ
Bus station(s)	No	
Airport(s)	No	
Groundwater well(s) or intake(s) to drinking water systems	No	
Water body (ies) (e.g. rivers, lakes, and oceans)	No	
Park(s) or forest(s)	Yes	Mic Mac Park is inside the EPZ
Fish and wildlife habitat area(s)	Yes	WMU 94A is inside the EPZ
Other(s) (e.g. campgrounds, etc.)	No	

Response Considerations

Response Considerations	Notes
Cities/Towns/Villages	<ul style="list-style-type: none"> Windsor Terminal is located within the Windsor City boundaries
First Nations Reserves	<ul style="list-style-type: none"> N/A
Communication Considerations	<ul style="list-style-type: none"> Personnel working in the EPZ that would be difficult to notify / contact in the event of an emergency Radio controlled roads Areas without cell reception
Access Considerations	<ul style="list-style-type: none"> Personnel working in the area that would have no egress in the event of an emergency Roadblocks that someone would have to pass through the hazard area to get to Winter roads Roads that are impassible in certain weather Single lane bridges

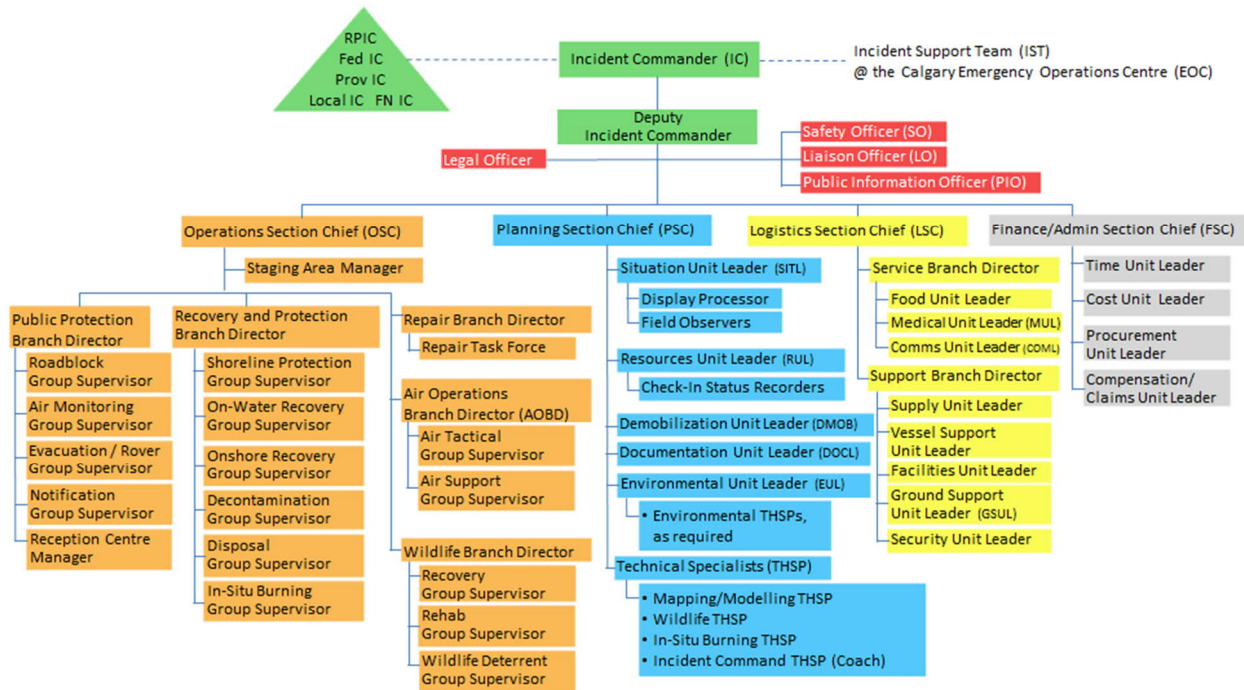
Please refer to the Facility Map for additional details.

Roles & Responsibilities

For Position Titles and Roles & Responsibilities, refer to Section 2: Roles & Responsibilities in the Corporate ERP.

Training

Response personnel that could potentially fill the roles and may be involved in the training are identified in the IMT Organizational Chart included below. PMC will fill appropriate roles based on specific incident requirements



To meet E2 requirements for a simulation exercise:

- One substance from each hazard category must be exercised.
- The environmental emergency scenarios must be cycled through (a different one each year).

For full training requirements, refer to Section 7.1: Concordance Table, Sub-Section 7.1.3: Environmental Emergency Regulations (SOR/2019-51) and Section 7.2: Training Requirements located in in the Corporate ERP.

Public Communication

Plains Midstream Canada has created a Public Information Handout (PIH) to discuss the following:

- the possibility that the environmental emergency could occur,
- the potential effects of the environmental emergency on the environment and on human life or health, taking into account the substance, the activity the substance is used, and the facility and surrounding area features.
- the measures that will be taken to protect the environment and human life or health
- the means of communications in the event that the environmental emergency occurs

The PIH was provided to any surface developments within the E2 EPZ as well as mailed out to Area Users (Oil and Gas Operators, Railways, Trapper, Guides & Outfitters, Grazing Leases, and Forestry Management Units). Emergency contact information was gathered for the surface developments within the E2 EPZ and has been included within this plan.

Plains Midstream's Public Safety Group Supervisor (or delegate) would be responsible for communicating with members of the public who may be adversely affected by an environmental emergency, during and after the emergency, with information and guidance concerning the actions that could be taken to reduce the potential harm to the environment and danger to human life or health, including an explanation of how those actions may help to reduce the harm or danger.

Related information can be found in the Corporate ERP in the following sections:

- Section 2: Roles & Responsibilities
- Section 5: Communications & Media

Local Authority Communication

Plains Midstream Canada consulted with the local authority in the development of the Emergency Response Plan (ERP) regarding their roles & responsibilities in the event of an emergency. A copy of this is included in Section 8: Government Agencies and Local Authorities of this ERP.

The local authority, RCMP and local fire departments were provided with a copy of:

- the Public Information Handout (PIH).
- the Environmental Emergency Plan.

Facility Map and Plot Plan

For Facility Map - Please refer to the back of the 11x17 site section.

For Plot Plan – Please refer to Sub-Section: 9.12.2 Plot Plans of this ERP

Facility Site Section (11x17 Insert)

Refer to the Facility Site Section for the following:

- Operations Summary – the commercial, manufacturing, processing or other activity involving the substance that takes place at the facility.
- Phone List

Substance Specific Properties & Emergency Management

Page(s) specific to the substances stored at the facility are included as an attachment.

These pages include:

- Properties and Characteristics of the substance
- The identification of what environmental emergencies could occur and the potential harm
- Preventative, Preparedness, Response and Recovery actions that could potentially be taken

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PMC CORPORATE CONTACTS

[Redacted contact information]

OPERATIONS OVERVIEW

The Windsor Storage Facility is a natural gas liquids storage and pipeline terminal facility. It is located on approximately 149 acres of land within the Windsor city limits.

The Windsor Storage Facility has the following calculated E2 Emergency Planning Zones (EPZ) and E2 Worst Case Zone:

- Butane 432m (E2 EPZ) and 3200m (E2 Worst Case Zone)
Ethyl Mercaptan 160m (E2 EPZ) and 300m (E2 Worst Case Zone)
Propane 460m (E2 EPZ) and 2800m (E2 Worst Case Zone)
Ethane 351m (E2 EPZ) and 3400m (E2 Worst Case Zone)

Note: The E2 EPZ is the zone based on a more likely to occur scenario which includes a partial release of the substance.

E2 Worst Case Zone is the zone based on the full release of the Maximum Expected Quantity of the substance.

LOCAL RESPONDERS

[Redacted local responder information]

LEAD AGENCIES

Note: All numbers, unless otherwise indicated, are 24 hours.

- Canada Energy Regulator (CER)
Ontario Energy Board (OEB)
Spill Action Centre

LOCAL AUTHORITIES

Note: All numbers, unless otherwise indicated, are 24 hours.

- City of Windsor
City of Windsor - Emergency Management
Port of Windsor

OTHER ORGANIZATIONS

- Ontario Poison Centre
Ontario One Call (Click or Call Before You Dig)
CHEMTREC

SUPPORTING AGENCIES

Note: All numbers, unless otherwise indicated, are 24 hours.

- Ministry of Labour, Immigration, Training and Skills Development
Technical Standards and Safety Authority (TSSA)
Electrical Safety Authority (ESA)
Ministry of Natural Resources and Forestry
Ministry of Transportation
Ministry of Health and Long Term Care
Workplace Safety and Insurance Board (WSIB)
Ministry of Environment and Climate Change
National Environment Emergencies Centre
CANUTEC (1-888-CAN-UTEC)
Department of Fisheries and Oceans Canada (DFO)
Transport Canada - Ottawa Situation Centre
Canadian Coastguards - Sarnia

SAFETY EQUIPMENT

For a more detailed list of equipment and locations please refer to Section 9.5: Equipment Lists and Locations of this ERP.

Table with columns: Equipment Type, Quantity, Location. Rows include NGL Safety Equipment, Portable Gas Monitors, SCBAs/SABA, Ignition Kits, Roadblock Kits, Other Equipment.

FIRST RESPONDERS

Note: All numbers, unless otherwise indicated, are 24 hours.

- Ambulance/Fire/Police
Municipal Fire Departments
Ontario Provincial Police (OPP)/ Local Police (Sarnia/Windsor)
Hospitals

SUPPORT SERVICES

- Aviation Support
Construction Companies
B & D Insulation/Sarnia Construction Association
Chemfab Industries Inc.
Curran Contractors Ltd.
GHD
Vollmer Inc (Heavy Construction)
LamSar Industrial Contractors Inc.
Murray Mills Excavating
Sterling Crane

SUPPORT SERVICES, continued

- Diving Companies
Emergency Equipment
Electrical Service Companies
Environmental Laboratories
Environmental Service Companies (Spill Response/Cleanup)
Firefighting (Industrial)
Hotels / Motels
Mobile Air Monitoring Services
Safety Services
Vacuum Trucks
Valves
Emergency Response Assistance Canada (ERAC)

Note: Refer to Section 8: Government Agencies and Local Authorities, in the PMC Core Emergency Response Plan, for the Alberta Incident, Spill, and Release Reporting Requirements, which identifies who, what, where, when, why and how an environmental emergency is to be reported.

WINDSOR STORAGE FACILITY
WINDSOR STORAGE FACILITY ERP



Draft Date: May 27, 2019 DS Scale: 1:30,000 Map: 8667

Revision Date: August 31, 2023 LS UTM ZONE 17 NAD83



AREA OVERVIEW MAP
 1:200,000



- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ■ Facility ▶ HOV/MOV ▶ Manual Valve — Third Party Pipeline — Oil Pipeline - - - Discontinued Oil Pipeline — Highway - - - Other Roads — Railway | <ul style="list-style-type: none"> ■ Surface Development ≡ Bridge ◆ Dead End × Locked Gate ■ Power Station Ⓜ Recreation Area Hydrology Waterbody Urban Area | <ul style="list-style-type: none"> ■ Protected Area □ Health Authority □ Local Authority □ RCMP □ Wildlife Management Unit □ PMC Facility Boundary ○ E2 EPZ ○ E2 Worst Case Zone ○ Other PMC System EPZ |
|---|--|--|

Physical Properties

Chemical Formula	C4H10
Flash Point	24.4 ° C
Boiling Point	- 0.5 ° C
Lower Explosive Limit (LEL)	1.9%
Upper Explosive Limit (LEL)	8.5%
Autoignition Temperature	287.8 ° C
Vapor Density (Air = 1)	2.046
Water Solubility	61 mg/L
IDLH	Not Available

General Description

Butane is a colorless gas with a faint petroleum-like odor.

For transportation it may be stented. It is shipped as a liquefied gas under its vapor pressure.

Contact with the liquid can cause frostbite.

It is easily ignited. Its vapors are heavier than air. Any leak can be either liquid or vapor.

Under prolonged exposure to fire or intense heat the containers may rupture violently and rocket. It is used as a fuel, an aerosol propellant, in cigarette lighters, and to make other chemicals.

NFPA Diamond	Hazard	Rating	Description
	Health	Slightly Hazardous	Can cause significant irritation.
	Flammability	Flash Point below 73 °F	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	Instability	Stable	Normally stable, even under fire conditions.
	Special		

Information on this page is from CAMEO Chemicals and the Transport Canada Emergency Response Guide

ECCC Hazard Category

E

EXPLOSION

CAS # 106-97-8

UN # 1011

TC ERG Guide # 115

POTENTIAL HAZARDS

FIRE OR EXPLOSION

• EXTREMELY FLAMMABLE.

- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices. Containers may explode when heated.
- Ruptured cylinders may rocket.



HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.



PUBLIC SAFETY

- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).



PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

PUBLIC SAFETY

EVACUATION

Large spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray or fog.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.



EMERGENCY RESPONSE

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.

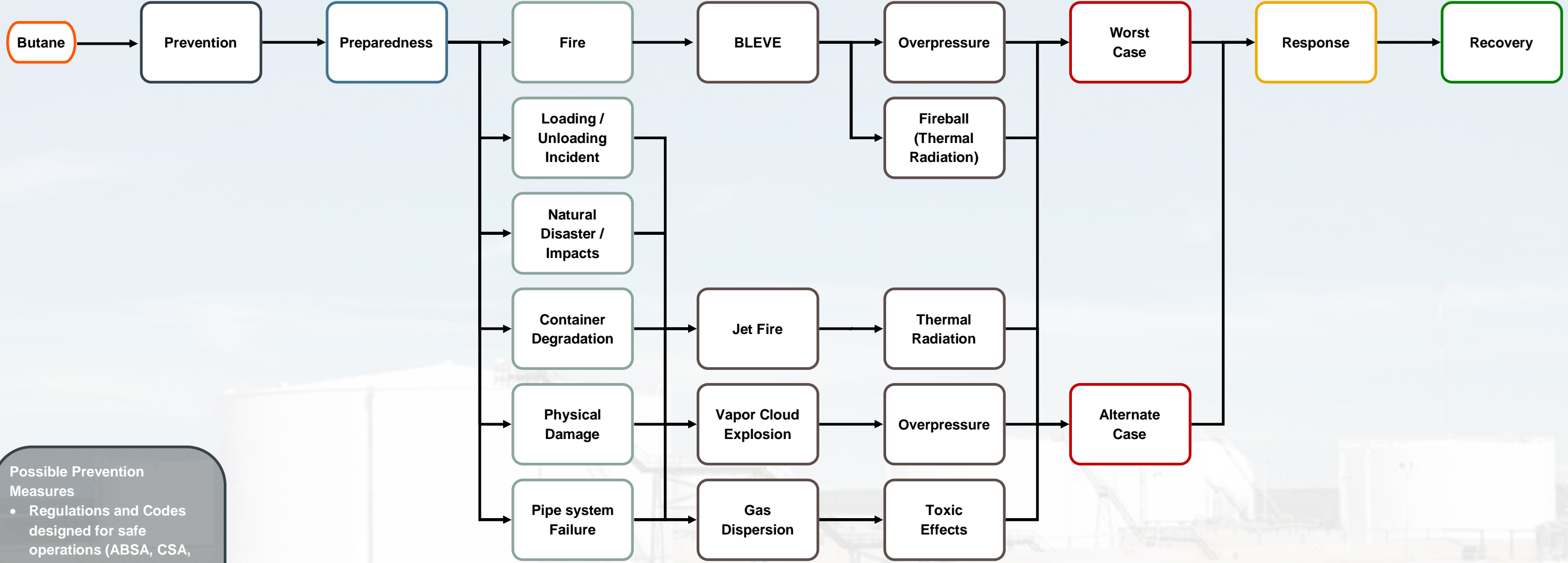
CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim calm and warm.



Butane



- Possible Prevention Measures**
- Regulations and Codes designed for safe operations (ABSA, CSA, ASME, ANSI, NFPA)
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 - Site Security
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 - Audits of the Incident Command Post (ICP)
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 - Response Software

- Possible Harm to the Environment**
- Wildfire / Forest Fire
 - Air Emissions
 - Permanent loss of plants and animals
 - Permanent Disability
 - Contaminating water and/or land
 - Cascading effects leading to the release of a toxic substance

- Possible Danger to Human Health**
- Fatality
 - Permanent Disability
 - Lost Time Injury
 - First Aid
 - Cascading effects leading to the release of a toxic substance

- Possible Response Actions**
- Evacuate
 - Alarm
 - Call 911 (if required)
 - Assess
 - Protect
 - Rescue
 - First Aid
 - Medical Aid
 - Initiate ERP

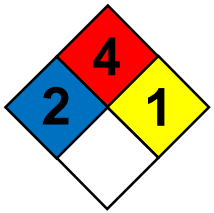




- Possible Recovery Actions**
- Incident Investigation
 - Root Cause Analysis
 - Environmental cleanup and remediation
 - Facility repair and equipment replacement
 - Review and revise equipment and processes at other locations
 - Share learnings

Physical Properties

Chemical Formula	C2H6S
Flash Point	< -18 ° C
Boiling Point	34 ° C
Lower Explosive Limit (LEL)	2.8%
Upper Explosive Limit (LEL)	18%
Autoignition Temperature	300 ° C
Vapor Density (Air = 1)	Not Available
Water Solubility	0.7%
IDLH	500 ppm

General Description

A clear colorless low-boiling liquid with an overpowering, garlic-like/skunk-like odor.
Less dense than water and very slightly soluble in water.
Vapors are heavier than air. Vapors may irritate nose and throat.
May be toxic if swallowed, by inhalation or by contact.
Added to natural gas as an odorant. Used as a stabilizer for adhesives.

NFPA Diamond	Hazard	Rating	Description
	 Health	Hazardous	Can cause temporary incapacitation or residual injury.
	 Flammability	Flash Point below 73 °F	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	 Instability	Stable	Normally stable but can become unstable at elevated temperatures and pressures.
	 Special		

Information on this page is from CAMEO Chemicals and the Transport Canada Emergency Response Guide

ECCC Hazard Category

E

EXPLOSION

CAS # 75-08-1

UN # 2363

TC ERG Guide # 129

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.



HEALTH

- May cause toxic effects if inhaled or absorbed through skin.
- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation
- Runoff from fire control or dilution water may cause pollution.



PUBLIC SAFETY

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering.



PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

PUBLIC SAFETY

EVACUATION



Large spill

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

CAUTION: All these products have a very low flash point: Use of water spray when fire fighting may be inefficient.

Small Fire

- Dry chemical, CO₂, water spray or alcohol-resistant foam.



Large Fire

- Water spray, fog, or alcohol-resistant foam.
- **Do not use straight streams.**
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

EMERGENCY RESPONSE



SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor-suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean, non-sparking tools to collect absorbed material.

Large Spill

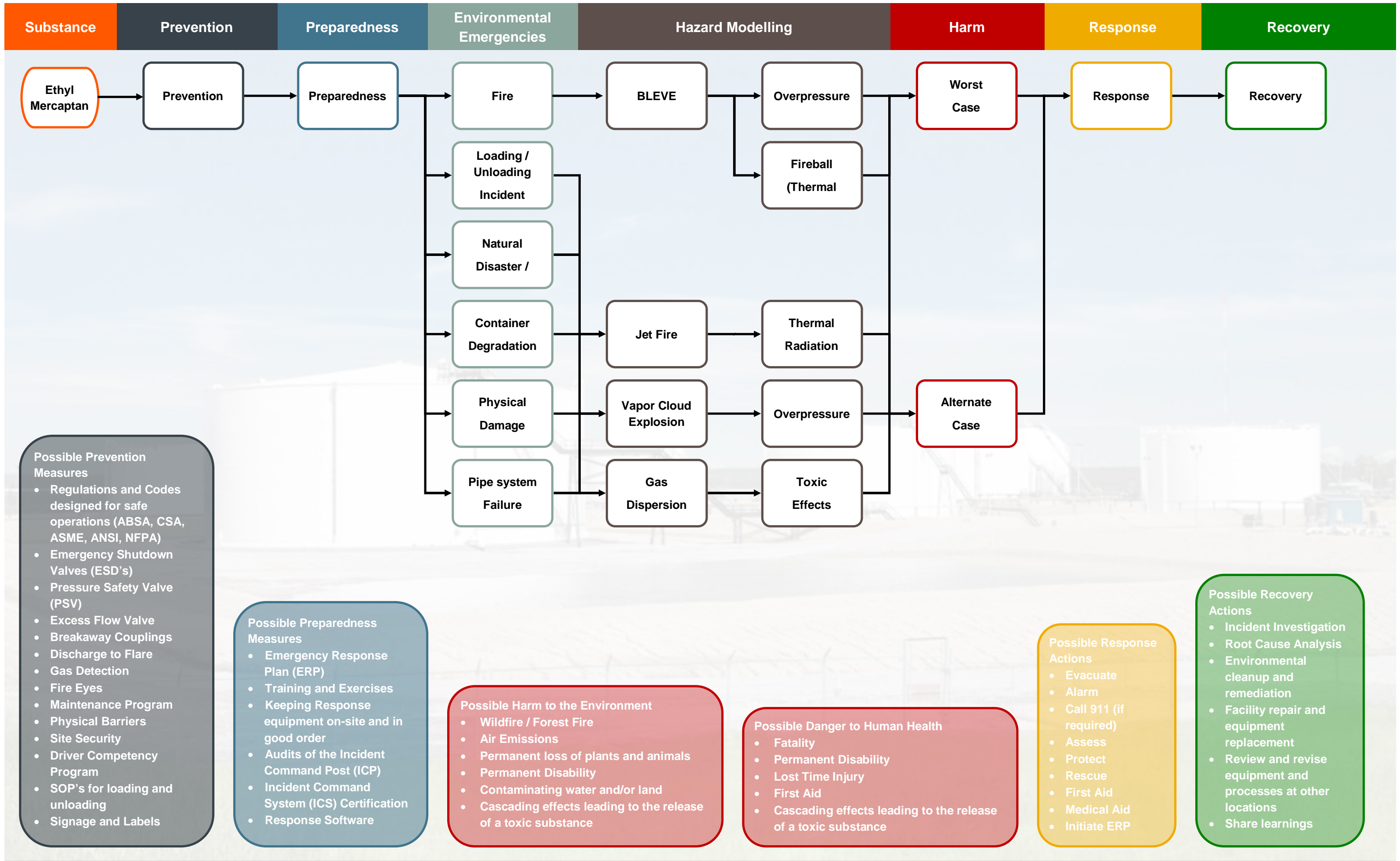
- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor, but may not prevent ignition in closed spaces.

FIRST AID

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim calm and warm.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.



ETHYL MERCAPTAN



Physical Properties

Chemical Formula	C3H8
Flash Point	-104 ° C
Boiling Point	-42.1 ° C
Lower Explosive Limit (LEL)	2.1%
Upper Explosive Limit (LEL)	9.5%
Autoignition Temperature	450 ° C
Vapor Density (Air = 1)	1.5
Water Solubility	0.01%
IDLH	2100 ppm

General Description

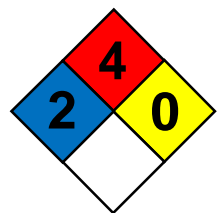
A colorless gas with a faint petroleum-like odor. It is shipped as a liquefied gas under its vapor pressure. For transportation it may be stented.

Contact with the unconfined liquid can cause frostbite by evaporative cooling.

Easily ignited. The vapors are heavier than air and a flame can flash back to the source of leak very easily. The leak may be either a liquid or vapor leak.

The vapors can asphyxiate by the displacement of air.

Under prolonged exposure to fire or heat the containers may rupture violently and rocket.

NFPA Diamond	Hazard	Rating	Description
	Health	Hazardous	Can cause temporary incapacitation or residual injury.
	Flammability	Flash Point below 73 °F	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	Instability	Stable	Normally stable, even under fire conditions.
	Special		

Information on this page is from CAMEO Chemicals and the Transport Canada Emergency Response Guide

ECCC Hazard Category

E

EXPLOSION

CAS # 74-98-6

UN # 1075

TC ERG Guide # 115

POTENTIAL HAZARDS

FIRE OR EXPLOSION

• EXTREMELY FLAMMABLE.

- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
- Cylinders exposed to fire may vent and release flammable gas through pressure relief devices. Containers may explode when heated.
- Ruptured cylinders may rocket.



HEALTH

- Vapors may cause dizziness or asphyxiation without warning.
- Some may be irritating if inhaled at high concentrations.
- Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.
- Fire may produce irritating and/or toxic gases.



PUBLIC SAFETY

- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).



PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
- Always wear thermal protective clothing when handling refrigerated/cryogenic liquids.

PUBLIC SAFETY

EVACUATION

Large spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).



Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

- DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED

Small Fire

- Dry chemical or CO₂.

Large Fire

- Water spray or fog.



Fire involving Tanks

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Do not direct water at source of leak or safety devices; icing may occur.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

EMERGENCY RESPONSE

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- If possible, turn leaking containers so that gas escapes rather than liquid.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- Do not direct water at spill or source of leak.
- Prevent spreading of vapors through sewers, ventilation systems and confined areas.
- Isolate area until gas has dispersed.



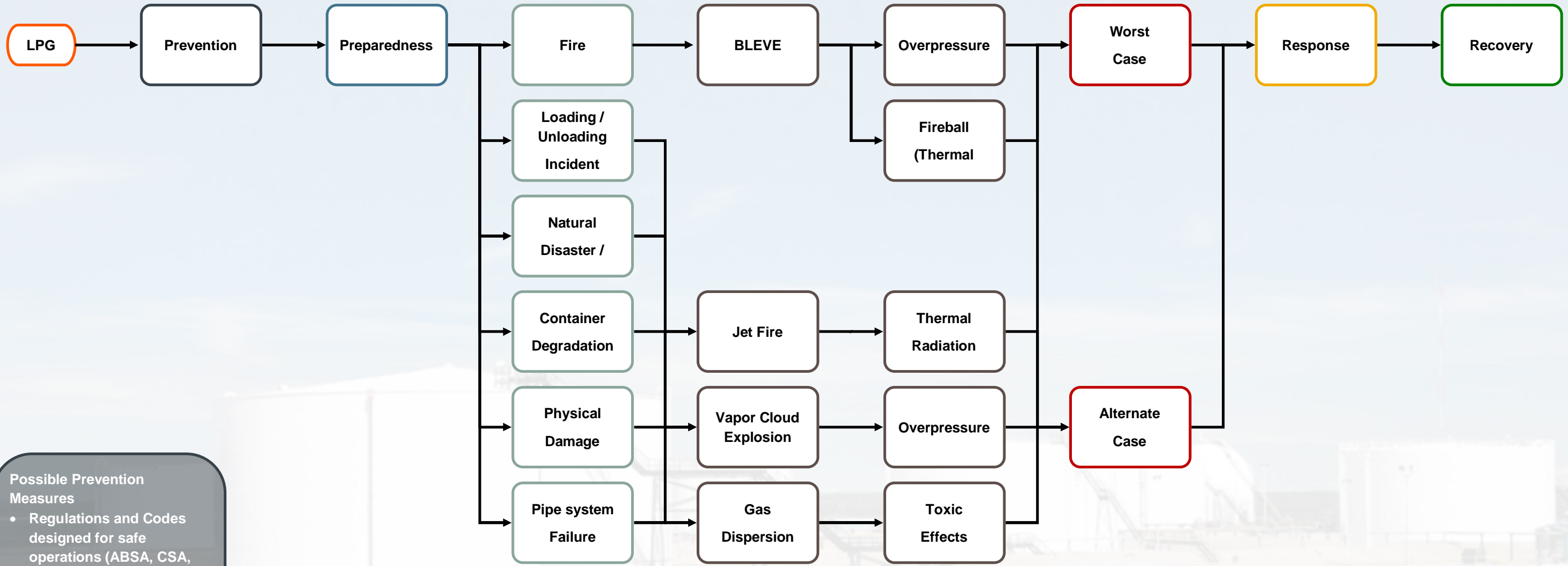
CAUTION: When in contact with refrigerated/cryogenic liquids, many materials become brittle and are likely to break without warning.

FIRST AID

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air.
- Call 911 or emergency medical service.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- Clothing frozen to the skin should be thawed before being removed.
- In case of contact with liquefied gas, thaw frosted parts with lukewarm water.
- In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
- Keep victim calm and warm.



Propane



- Possible Prevention Measures**
- Regulations and Codes designed for safe operations (ABSA, CSA, ASME, ANSI, NFPA)
 - Emergency Shutdown Valves (ESD's)
 - Pressure Safety Valve (PSV)
 - Excess Flow Valve
 - Breakaway Couplings
 - Discharge to Flare
 - Gas Detection
 - Fire Eyes
 - Maintenance Program
 - Physical Barriers
 - Site Security
 - Driver Competency Program
 - SOP's for loading and unloading
 - Signage and Labels

- Possible Preparedness Measures**
- Emergency Response Plan (ERP)
 - Training and Exercises
 - Keeping Response equipment on-site and in good order
 - Audits of the Incident Command Post (ICP)
 - Incident Command System (ICS) Certification
 - Response Software

- Possible Harm to the Environment**
- Wildfire / Forest Fire
 - Air Emissions
 - Permanent loss of plants and animals
 - Permanent Disability
 - Contaminating water and/or land
 - Cascading effects leading to the release of a toxic substance

- Possible Danger to Human Health**
- Fatality
 - Permanent Disability
 - Lost Time Injury
 - First Aid
 - Cascading effects leading to the release of a toxic substance

- Possible Response Actions**
- Evacuate
 - Alarm
 - Call 911 (if required)
 - Assess
 - Protect
 - Rescue
 - First Aid
 - Medical Aid
 - Initiate ERP

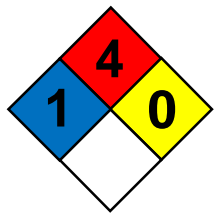




- Possible Recovery Actions**
- Incident Investigation
 - Root Cause Analysis
 - Environmental cleanup and remediation
 - Facility repair and equipment replacement
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Physical Properties

Chemical Formula	C2H6
Flash Point	-135 ° C
Boiling Point	-89 ° C
Lower Explosive Limit (LEL)	2.9%
Upper Explosive Limit (LEL)	13.0%
Autoignition Temperature	504 ° C
Vapor Density (Air = 1)	Not Available
Water Solubility	Not Available
IDLH	Not Available

General Description

Ethane is a colorless odorless gas.
It is easily ignited. The vapors are heavier than air.
It can asphyxiate by the displacement of air.
Under prolonged exposure to fire or heat the containers may rupture violently and rocket.
Contact with the liquid may cause frostbite.

NFPA Diamond	Hazard	Rating	Description
	 Health	Hazardous	Can cause significant irritation.
	 Flammability	Flash Point below 73 °F	Burns readily. Rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature.
	 Instability	Stable	Normally stable, even under fire conditions.
	 Special		

Information on this page is from CAMEO Chemicals and the Transport Canada Emergency Response Guide

ECCC Hazard Category

E

EXPLOSION

CAS # 74-84-0

UN # 1035

TC ERG Guide # 115

POTENTIAL HAZARDS

FIRE OR EXPLOSION

• EXTREMELY FLAMMABLE.

- Will be easily ignited by heat, sparks or flames.
- Will form explosive mixtures with air.
- Vapors from liquefied gas are initially heavier than air and spread along ground.
- Vapors may travel to source of ignition and flash back.
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- Fire may produce irritating and/or toxic gases.



PUBLIC SAFETY

- As an immediate precautionary measure, isolate spill or leak area for at least 100 meters (330 feet) in all directions.
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PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.
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PUBLIC SAFETY

EVACUATION

Large spill

- Consider initial downwind evacuation for at least 800 meters (1/2 mile).

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 1600 meters (1 mile) in all directions; also, consider initial evacuation for 1600 meters (1 mile) in all directions.

EMERGENCY RESPONSE

FIRE

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Small Fire

- Dry chemical or CO₂.

Large Fire

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Fire involving Tanks

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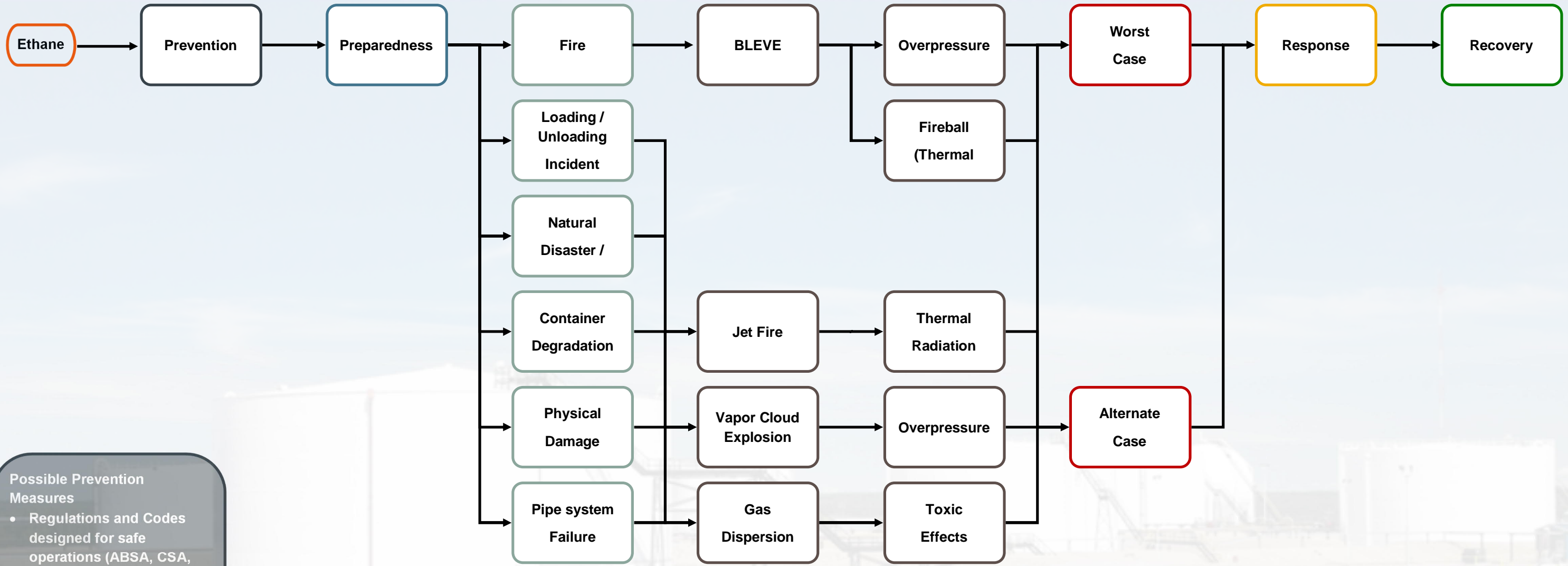
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- Keep victim calm and warm.



ETHANE



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