Integrated Contingency Plan

Northern Region Response Zone

Version Core 5.0/Annex 3.1
2017/2018
Northern -ICP-##

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Northern Region Response Zone

Version: Core 5.0 | Annex 3.1
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Record of Revisions

CORE REVISIONS

Date	Version	Subject No.	Subject Title	Change Type	Change Description
10/15	**Core Version 3.0**	ICP	Emergency Procedure Manual	Annual	First release in Region – Replaces Book 7 Part I and II
08/16	**Core Version 4.0**	ICP	Annual Review	Annual	Completed Revision of Core Sections 1-4
02/17	**Core Version 4.1**	Core Section 1 & 3	Plan Introduction Elements, Training/Exercise Program	Critical Revisions	Updated Core Section 1.0 Enbridge Entities, 1.7 Canada System Map & 1.8 US System map to reflect the current Enbridge Entities/Boundaries after the sale of South Prairie Region and the boundary change in Great Lakes and Superior Region. Core Section 3 changes to Exercise Program to align with PREP Guidelines.
04/17	**Core Version 4.2**	Core Section 1	Plan Introduction Elements	Critical Revisions	Company 24/7 Emergency Phone Line – removed the call center number for South Prairie in 1.1. Added Tank Fire Prevention Protection sheet, 1.5.6 and Pipeline Inspections sheet, 1.5.7.
		Core Section 2	Core Plan Elements		As per PHMSA Letter of Correction Letter 04/12/2017: Add step by step instructions to the 2.4.9.6 In-situ Burn Guide insert regarding the approval process for in-situ burning,

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Date	Version	Subject No.	Subject Title	Change Type	Change Description
08/17	Core Version 4.3	Core 1.0	Enbridge Entities	Critical	Removed Ozark L.L.C from list of entities as the asset is no longer owned and operated by Enbridge.
		Core 1.8	U.S Pipeline System Map		Removed Line 51 from the map as the asset is no longer owned and operated by Enbridge.
		Core 2.4.9.5	Shoreline and Terrestrial Operations		As per PHMSA Letter of Correction dated 08/01/2017: Add the following to the "Non-Mechanical Response Options" paragraph: "In the U.S., the request to use dispersants as a tactic is requested through Unified Command to the appropriate Federal On-Scene Coordinator." To provide clarity to the approval process for the use of dispersants.
		Core 2.4.9.7	Bioremediation		As per PHMSA Letter of Correction dated 08/01/2017: Sub-section reworked to provide clarity on the approval process for the use of bioremediation (see document as text is lengthy).
12/17	Core Version 5.0	ICP	Annual Review	Annual	Completed Revision of Core Sections 1-4

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ANNEX REVISIONS

Date	Version	Subject No.	Subject Title	Change Type	Change Description
10/15	**Annex Version 1.0**	NEB Submission	Emergency Procedure Manual (NEW FORMAT)	First Publication	New Emergency Procedure Manual format – Replaces Book 7 Part I and II in full
03/29/16	**Annex Version 1.1**	Annex 2.2.3e	Enbridge External Incident Reporting Thresholds	Revision	Updated the tables to the latest version
05/03/16	**Annex Version 1.2**	Annex 2.2.3e	Enbridge External Incident Reporting Thresholds	Revision	Updated the tables to the latest version
10/03/16	**Annex Version 2.0**	Annex 1-5	Annual Review	Annual	Completed review and revision of Annexes 1-5
		Annex 6/Field Emergency Response Plan	Annual Review		Review, revision and renaming of Annex 6 to Field Emergency Response Plan
11/28/16	**Annex Version 2.1**	Annex 1.3	Management Certificate	Critical/Revised	Revise Ann Marie Tout's title to "Manager, Northern Region"
		Annex 1.4	Incident Commanders (Qualified Individuals)		Revise Ann Marie Tout's title to "Manager, Northern Region," revise Mark Gerlock's title to "Supervisor, Ops"
		Annex 2.2.3a	Incident Management Team		Revisions to Incident Management Team List due to re-organizational structure
		Annex 2.2.3i	Enbridge External Incident Reporting Thresholds		Updated Book 1 Incident Reporting Standard to Version 16.0
		Field Emergency Response Plan	Incident Management Team		Revisions to Incident Management Team List due to re-organizational structure
03/02/17	**Annex Version 2.2**	Annex 2.2.3.a	Incident Management Team List	Critical/Revised	Revisions to Incident Management Team List due to re-organizational structure
		Annex 2.2.3i	Enbridge External Incident Reporting Thresholds		Updated Book 1 Incident Reporting Standard to Version 17.0
		Field Emergency Response Plan	Incident Management Team		Revisions to Incident Management Team List due to re-organizational structure

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Date	Version	Subject No.	Subject Title	Change Type	Change Description
05/08/17	**Annex Version 2.3**	Annex 5.1	Revision Process	Critical/Revised	Add wording in revision process referencing IMS-07, NEB assessment mandated change
15/08/17	**Annex Version 2.4**	Annex 1.3	Management Certification	Critical/Revised	Incident Commander/Qualified Individual changed, from Ann Marie Tout to: Ken Jacobson, Director, Athabasca & Northern Region, 780-762-4751, 780-381-9461
		Annex 1.4	Incident Commanders (Qualified Individuals)		
		Annex 1.6.2	Enbridge Equipment Locations		
		Annex 2.0.1	Emergency Notification/Activation		
		Annex 2.2.3a	Incident Management Team		
		Annex 2.2.3b	Response Units		
		Annex 2.2.3i	Enbridge Reporting Criteria/Requirement Deadlines		Updated Book 1 Incident Reporting Standard to Version 18.0
12/11/17	**Annex Version 3.0**	Annex 1-5	Annual Review	Annual	Completed review and revision of Annexes 1-5
		Field Emergency Response Plan	Annual Review		Review and revision of the Field Emergency Response Plan
05/29/18	**Annex Version 3.1**	Annex 2.2.3a	Incident Management Team List	Critical	Updated key roles on the Incident management Team List
		Annex 2.2.3k	Enbridge Reporting Criteria / Requirements / Deadlines		Updated Book 1 Incident Reporting Standard to Version 21.0

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CORE SECTIONS	
1: Plan Introduction Elements	Enbridge Entities, Company 24/7 Emergency Phone Line, Acronyms/Glossary/Conversion Table, Purpose and Scope of Plan, Pillars of Emergency Management, Safety and Operational Reliability, Regulatory Compliance- Canada and U.S., System Maps- Canada and U.S.
2: Core Plan Elements	General Guidance (Guiding Objectives, Documentation, Personal Protective Equipment), Discovery/Detection (Observation, Discovery, & Detection), Notification and Communication (Field Notification, Control Center, Classification of Incident, Third-Party Notifications, External Notifications), Initial Response (Procedures, Isolation Distance, On-Site Work Areas, Evacuation), Operations (Response Management System, Site Security and Control, Hazard Specific Field Response Guides, Environmental Response, Waste & Disposal, Site Safety & Health Plan, Protection, Containment and Recovery), Demobilization (Equipment Inventory, Return & Restock, After- Action Review)
3: Training/Exercise Program	Training, Response Training, Incident Command System, Operational Training, HAZWOPER Training, Response Exercise Program, Third-Party Awareness Training
4: Forms/Templates	Company Forms & Templates, Industry Forms
ANNEXES	
1: Facility and Locality Information	Owner & Operator, Purpose, Interface with Jurisdictional and Company Plans, Management Certification, Incident Commanders (Qualified Individuals), Significant and Substantial Harm Certification, Response Zone Description (Information Summary), Local Spill Response Equipment, Evacuation, Worst-Case Discharge, Emergency Response Time Maps, Safety Data Sheets
2: Notification Procedures	Notifications Overview (Emergency Notification/ Activation), Emergency Responsibilities, Incident Reporting (Required Notifications, Incident Management Team, External AGENCIES AND Support Resources, Emergency Contact Information), Oil Spill Response Organization (OSRO)
3: Environmental Sensitive Area Information	Unusually Sensitive Area Information, Significant and Substantial Harm Maps and Unusually Sensitive Area Tables
4: Regulatory Cross Reference	DOT 49CFR§172 (North Dakota), DOT 49CFR§192, DOT 49CFR§194, DOT CFR§195, 29 CFR§1910.120, MDEQ Rule #5 (Chicago), Other Regulatory References (Worst- Case Discharge Methodology)
5: Administration	Distribution List, Revision Process, Record of Revisions
Field Emergency Response Plan	First Responder Checklist, Acronyms/Glossary, General Guidance, Response Zone Description (Information Summary), Discovery/Detection, Notification Procedures, Initial Response, Operations, Communications, Response Equipment, Protection, Containment & Recovery, Safety Data Sheet (SDS), Forms.

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Section 1 – Table of Contents Page

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1.0 Enbridge Entities

The Integrated Contingency Plan ("ICP") applies to the following companies.

ENBRIDGE LEGAL COMPANY NAMES	
U.S. Owner & Address	Bakken Pipeline Company LP CCPS Transportation, L.L.C. Enbridge Energy, Limited Partnership Enbridge Storage (Cushing) L.L.C. Enbridge Pipelines (FSP) L.L.C. Illinois Extension Pipeline Company, L.L.C. Enbridge Storage (Patoka) L.L.C. Enbridge Pipelines (Southern Lights) L.L.C. Enbridge Pipelines (Toledo) Inc. North Dakota Pipeline Company L.L.C. Platte Pipe Line Company L.L.C Express Pipeline L.L.C 1100 Louisiana Street, Suite 3300 Houston, TX 77002-5216 Phone: (713) 821-2000
Canada Owner & Address	Enbridge Pipelines Inc. Enbridge Pipelines (NW) Inc. Enbridge Pipelines (Athabasca) Inc. Enbridge Southern Lights GP Inc. Enbridge Pipelines (Woodland) Inc. Enbridge Bakken Pipeline Company Inc. Hardisty Contract Storage Inc. Enbridge Midstream Inc. Express Pipeline Ltd. 10175-101st Edmonton, AB T5J 3S4 Phone: (780) 426-6088

Throughout this Plan, a reference to the "Company" includes the Enbridge companies listed above.

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1.1 Company 24/7 Emergency Phone Line

In Case of Emergency – 24 hr. Contacts	
Edmonton Control Center	1-800-858-5253 US Regions 1-888-449-7539 Express Platte Region 1-877-420-8800 CDN Regions (Western, Central, Eastern, Northern) 1-888-813-6844 Athabasca Region
Enbridge Media Hotline	1-888-992-0997 Canada 1-877-496-8142 US

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1.2 Acronyms / Glossary / Conversion Table

1.2.1 Acronyms

Terminology specific to the U.S. is shaded in grey.

Acronym	Description
AAR/IP	After Action Report/ Improvement Plan
ACP	Area Contingency Plan
API	American Petroleum Institute
BBL	Barrel (Unit of Volume Equal to 42 Gallons)
BPD	Barrels per Day
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CFR	Code of Federal Regulations
CGI	Combustible Gas Indicator
CMT	Crisis Management Team
CNW	Commercially Navigable Waterway (High Consequence Area)
COTP	Captain of the Port
CP	Control Point
CPM	Computational Pipeline Monitoring
CSA	Canadian Standards Association
CWA	Clean Water Act
DOCL	Documentation Unit Leader
DOSC	Deputy Operations Section Chief
DOT	U.S. Department of Transportation
DW	Drinking Water (High Consequence Area)
EAS	Emergency Alert System
EH&S	Environment, Health, & Safety
EMT	Emergency Medical Technician
ENR	Environment & Natural Resources (Northwest Territories Government)
ENVL	Environmental Unit Leader
EOC	Emergency Operations Center

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Acronym	Description
EPA	U.S. Environmental Protection Agency
ERD	Emergency Response Directory
ERG	Emergency Response Guidebook
ERP	Emergency Response Plan
ERT	Emergency Response Team
ESA	Environmentally Sensitive Area (High Consequence Area)
E3RT	Enbridge Enterprise Emergency Response Team
ESD	Emergency Shutdown
FAA	Federal Aviation Administration
FE	Functional Exercise
FEMA	Federal Emergency Management Agency
FERP	Field Emergency Response Plan
FOSC	Federal On-Scene Coordinator
FP	Flashpoint
FRP	Facility Response Plan
FRT	Field Response Team
FSC	Finance Section Chief
FSE	Full Scale Exercises
FWPCA	Federal Water Pollution Control Act (as amended) (33 U.S.C. 1251 et seq.)
GIS	Geographic Information System
GIUE	Government-Initiated Unannounced Exercise in U.S.
GNWT	Government of Northwest Territories
GRP	Geographical Response Plans
HAZMAT	Hazardous Materials
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCA	High Consequence Area
HSEEP	Homeland Security Exercise and Evaluation Program
HPA	High Population Area (High Consequence Area)
IAP	Incident Action Plan

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Acronym	Description
IC	Incident Commander
ICP	Integrated Contingency Plan
ICS	Incident Command System
IMH	Incident Management Handbook
IMT	Incident Management Team
IST	Incident Support Team
JIC	Joint Information Center
LEL	Lower Exposure Limit
LEPC	Local Emergency Planning Committee
LMS	Learning Management System
LNO	Liaison Officer
LOSC	Local On Scene Coordinator
LPM	Line Pressure Monitor
LSC	Logistics Section Chief
MAOP	Maximum Allowable Operating Pressure
MBS	Material Balance System
NCP	National Contingency Plan
NFPA	National Fire Protection Area
NGL	Natural Gas Liquids
NEB	National Energy Board
NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NPMS	National Pipeline Mapping System
NRC	National Response Center
NRDA	Natural Resources Damage Assessment
NRS	National Response System
NRT	National Response Team
OPA	Other Populated Area (High Consequence Area)
OPA 90	Oil Pollution Act of 1990

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Acronym	Description
OPR	Onshore Pipeline Regulations
OSC	Operations Section Chief
OSHA	Federal Occupational Safety and Health Administration
OSRO	Oil Spill Response Organization
PAP	Public Awareness Program
PIA	Post-Incident Analysis
PIO	Public Information Officer
PHMSA	Pipeline and Hazardous Materials Safety Administration
PLC	Programmable Logic Controller
PLM	Pipeline Maintenance
PPE	Personal Protective Equipment
PPM	Parts Per Million
PREP	National Preparedness for Response Exercise Program
PSC	Planning Section Chief
PSI	Pounds per square inch
QA/QC	Quality Assurance/ Quality Control
QI	Qualified Individual
ROW	Right-of-Way
RSO	Radiation Safety Officer
SARA	Superfund Amendments and Reauthorization Act
SCADA	Supervisory Control & Data Acquisition
SCAT	Shoreline Clean-up Assessment Team
SCBA	Self-Contained Breathing Apparatus
SDS	Safety Data Sheet (also known as Material Safety Data Sheet)
SERC	State Emergency Response Commission
SMART	Special Monitoring for Applied Response Technologies
SML	Subject Matter Lead
SOFR	Safety Officer
SONS	Spill of National Significance

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Acronym	Description
SOP	Standard Operating Procedure
SOSC	State On-Scene Commander
SPCC	Spill Prevention, Control, and Countermeasures
SSHP	Site Safety and Health Plan
SUBD	Support Branch Director
TFR	Temporary Flight Restrictions
TSB	Transportation Safety Board
TTX	Table Top Exercise
UC	Unified Command
UEL	Upper Exposure Limit
USA	Unusually Sensitive Areas
USC	U.S. Code
USCG	U.S. Coast Gaurd
WCD	Worst-Case Discharge

1.2.2 Glossary

Terminology specific to the U.S. is shaded in grey.

Term	Definition
A	
Absorbent Material	Any of several materials designed to absorb oil, both hydrocarbon and non-hydrocarbon.
Access/Staging Areas	Designated areas offering access to spill sites for the gathering and deployment of spill response equipment and personnel.
Adversary	Any individual, group, organization or government that conducts, or has the intention and capability to conduct, activities detrimental to critical assets (e.g., intelligence services of host nations, political terrorist groups, criminals, rogue employees, private interest, site insiders/outsiders).
Adverse Weather	The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operation environment. Factors to consider include significant wave height, ice, temperature, weather-related visibility, and currents within the COTP zone under the U.S. Coast Guard / or Canadian Coast Guard in which the systems or equipment are intended to function.

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Term	Definition
Alert Levels	A progressive, qualitative measure of the likelihood of terrorist actions, from negligible to imminent, based on government or Company intelligence information. Different fixed or variable security measures may be implemented based on the level of threat to the facility.
Area Contingency Plan	A reference document prepared for the use by all agencies engaged in responding to environmental emergencies in a defined geographic area as described in the Oil Pollution Act of 1990.
Assisting Agency	An agency directly contributing tactical or service resources to another agency.
B	
Barrel ("bbl")	A barrel of crude oil is equal to 42 gallons (approximately 159 liters).
Boom	A temporary floating barrier used to contain an oil spill.
Boom Deployment	The placement of a boom on land or in water to contain a product release.
Business Critical Facilities	Facilities and assets, whether physical or virtual, so vital to the Company that the incapacity or destruction of such systems and assets would have a debilitating impact on people, the environment, property or economic viability of the Company.
C	
Cache	A pre-determined complement of tools, equipment, and/or supplies stored in a designated location, and available for incident use.
CERCLA	The Comprehensive Environmental Response, Compensation and Liability Act, (U.S.) regarding hazardous substance releases into the environment and the clean-up of inactive hazardous waste disposal sites.
Clean-Up Contractor	Non-Company person contractually engaged to respond to and clean-up an oil spill.
Command Post	A site located in the cold zone where response decisions and activities can be planned, coordinated, and managed. The Incident Commander and regulatory bodies may operate from this location.
Company	Includes companies in the United States and in Canada.
Competent Worker	A person who, because of training and experience, is capable of identifying hazardous or dangerous conditions and has the authority to take prompt corrective measures to eliminate them.
Containment Boom	A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to entrap and contain the product for recovery.
Contamination Reduction Zone	The area between the contaminated zone and the clean zone. This area is designed to reduce the probability that in the future the area would become contaminated. Also known as the warm zone.

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Term	Definition
Contingency Plan	A document used by (1) Federal, Provincial/State, local and territorial agencies to guide entities' planning and response procedures regarding spill of oil, hazardous substances, or other emergencies; (2) a document used by industry as a response plan to spills of oil, hazardous substances, or other emergencies.
Contract or Other Approved Means	1. A written contractual agreement with a response contractor. The agreement should identify and ensure the availability of the specified personnel and equipment described under this plan within stipulated response times in the specified geographic areas; 2. Certification by the facility owner or operator that the specified personnel and equipment described under this plan are owned, operated, or under the direct control of the facility owner or operator, and are available within the stipulated times in the specified geographic areas; 3. Active membership in a local or regional oil spill removal organization that has identified specific personnel and equipment described under this plan that are available to respond to a discharge within stipulated times in the specified geographic areas.
Contractor	A company hired to complete specific work and paid directly by the Company.
Control Point ("CP")	A location downstream of a spill site on a stream or river where containment and recovery operations can occur.
Cooperating Agency	An agency supplying assistance other than direct tactical, support, or service functions or resources to the incident control effort.
Crisis	An incident, emergency, or combination of circumstances that could have a significant negative impact on the public, the environment, or the Company's employees, operations, reputation, earnings, or share value.
Crisis Communication	The effort taken by the Company to communicate with internal, external and public stakeholders when an unexpected event occurs that could have an impact on the Company's reputation.
Crisis Management Team ("CMT")	The executive group within the Company that functions away from the scene to support the Incident Management Team, facilitate planning, manage business recovery projects and address the implications of the problems and the potential impacts on the Company's viability, operability and credibility. Provides off-site strategic support.

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Term	Definition
Critical Facility	A facility that meets one or more of the following criteria: • May be considered a viable terrorist target, and a release from the facility has the potential for mass casualties or significant impact on public drinking water affecting a major population center if damaged or destroyed, would have a detrimental impact on the reliability or operability of the pipeline system, significantly impairing the ability to service a large number of customers for an extended period • If damaged or destroyed, would significantly impair other modes of transportation or other critical infrastructures (e.g., electrical power generation, telecommunications, public utility)
Critical Infrastructure	Systems and assets, whether physical or virtual, so vital to the Company that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health and safety or any combination thereof.
Crude Oil	Any liquid hydrocarbon mixture occurring naturally in the earth, whether or not treated to render it suitable for transportation, and includes crude oil from which certain distillate fractions may have been removed and crude oil to which certain distillate fractions may have been added.
Culturally Sensitive Areas	Current, historic, prehistoric, and archaeological resources which include deposits, structures, sites, ruins, buildings, graves, artifacts, fossils, or other objects of antiquity which provide information pertaining to historical or prehistoric culture of people as well as the natural history of the area.
D	
Damage Assessment	The process of determining and measuring damages and injury to the human environment and natural resources, including cultural resources. Damages include differences between the conditions and use of natural resources and the human environment that would have occurred without the incident, and the conditions and use that ensued following the incident. Damage assessment includes planning for restoration and determining the costs of restoration.
Dark Site	Activated to manage internal/ external communications related to any emergency.
Decontamination (“Decon”)	The removal of hazardous substances from personnel and equipment necessary to prevent adverse health effects.
Diluents	A generic term that encompasses any mixture of light liquid hydrocarbons used to dilute a heavier petroleum product (such as bitumen). As a common carrier, Enbridge may transport several different mixtures of diluents.
Discharge	Any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

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Term	Definition
Dispersants	Those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.
Diversion Boom	A flotation/freeboard device, made with a skirt/curtain, longitudinal strength member, and ballast unit/weight designed to deflect or divert floating product towards a pick up point or away from certain areas.
Dredging	Underwater excavation activity where heavy equipment is used to collect and remove bottom sediments by scraping or sucking.
E	
Enbridge Enterprise Emergency Response Team ("E3RT")	Comprised of individuals from each business unit (Liquids Pipelines, Gas Processing and Pipelines, Gas Distribution) to ensure that the Company has a highly trained team of that can be called upon within the organization to respond to large scale incidents anywhere within the Company.
Emergency	An unforeseen combination of circumstances or a disruption of normal operating conditions that poses a potential threat to human life, health, property, and/or the environment if not contained, controlled, or eliminated immediately.
Emergency Operations Center ("EOC")	A pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency response.
Emergency Organization	The chain of command used during emergency operations to provide effective management of the emergency and available resources.
Emergency Response Guidebook ("ERG")	This Guidebook is for Enbridge responders during the initial phase of a dangerous goods/hazardous materials transportation incident. It is a joint publication by the PHMSA, Transport Canada and the Secretariat of Transport and Communications of the Mexican Government.
Emergency Service	Those activities provided by the provincial/state and local governments to prepare for and carry out any activity to prevent, minimize, respond to, or recover from an emergency.
Enbridge Responder	Individual(s) employed by Enbridge who responds to a release or a potential release of hazardous substances as part of the initial response to the site for purposes of protecting nearby persons, property or the environment from the effects of the release.
Environmentally Sensitive Areas ("ESA")	Streams and water bodies, aquifer recharge zones, springs, wetlands, agricultural areas, bird rookeries, endangered or threatened species (flora and fauna) habitat, wildlife preserves or conservation areas, parks, beaches, dunes, or any other area protected or managed for its natural resource value.
Exercise Design Team	A team comprised of federal, provincial/state and industry representatives with responsibility for designing an Area Exercise. The exercise design team is charged with working with the lead plan holder to develop the scope, parameters and exercise scenario, although the lead plan holder retains the final decision on these.

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Term	Definition
External First Responders, First Response Agency	A public health or safety agency (e.g. fire service or police department) charged with responding to a spill during the emergency phase and alleviating immediate danger to human life, health, safety, or property.
F	
Field Response Team ("FRT")	A team of tactical Enbridge responders who take actions at an incident scene to directly respond to the problem and its consequence. Provides on-site tactical support. This team is made up of the Pipeline Maintenance ("PLM") crew or other similar group. Also known as Spill Management Team.
Fish and Wildlife and Sensitive Environments	Areas that may be identified by either their legal designation or by evaluations of Area Committees (for planning) or members of the jurisdiction having authority in the spill response structure (during responses). These areas may include wetlands, National and Provincial/State parks, critical habitats for endangered/threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, reserves, wildlife areas, wildlife refuges, wild and scenic rivers, recreational areas, national forests, Federal and provincial/state lands that are research national areas, heritage program areas, land trust areas, and historical and archeological sites and parks.These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.
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, e.g., "the planning function."
G	
Geographic Information System ("GIS")	An electronic information system that provides a geo-referenced database to support management decision-making.
H	
Handle	To transfer, transport, pump, treat, process, store, dispose of, drill for, or produce.
Harmful Quantity of Oil	The presence of oil from an unauthorized discharge in a quantity sufficient either to create a visible film or sheen or discoloration upon water, shoreline, tidal flat, beach, or marsh, or to cause a sludge or emulsion to be deposited beneath the surface of the water or on a shoreline, tidal flat, beach, or marsh.
Hazardous Substance / Material	Dangerous goods (solids, liquids or gases) that can harm people, other living organisms, property, or the environment, including but not limited to substances otherwise defined as hazardous wastes, dangerous wastes, extremely hazardous wastes, oil, or pollutants that are classified by CERCLA in the U.S and Environment Canada.

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Term	Definition
Hazardous Waste Operations and Emergency Response ("HAZWOPER")	Training required in the U.S under OSHA *29CFR§1910.120*. for responders who are exposed to or potentially exposed to hazardous substances including hazardous waste. Canadian employees will be required to complete the appropriate training course based on their potential job duties in a cross border response.
Health Hazard	A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed persons.
I	
Incident	An event affecting Company operations that may be an emergency or crisis.
Incident Action Plan ("IAP")	A document Is initially prepared at the first planning meeting that contains general control objectives reflecting the overall incident strategy, and specific action plans for the next operational period. When complete, the Incident Action Plans will include a number of attachments.
Incident Commander ("IC")	Person responsible for all aspects of the response, including developing incident objectives and managing all incident operations. This means the most qualified person, not necessarily the most senior person, on scene.
Incident Command Post	The location at which the primary command functions are executed; may be collocated with the incident base.
Incident Support Team	The basic function of the IST is to identify and address strategic issues which might arise during an incident that fall beyond the scope or capacity of the regional Incident Management Team (IMT). This team will support emergency response to ensure Enbridge's commitment to safety and protection of people, environment, assets, and reputation.
Incident Command System ("ICS")	A 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 Management Handbook ("IMH")	The IMH is intended to be used as an easy reference job aid for responders; designed to assist responders in the use of the National Incident Management System (Incident Command) during response operations.
Incident Management Team ("IMT")	A team that functions at and/or away from the incident scene to support tactical response operations, facilitates planning, and addresses the concerns of public and government agencies.

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Term	Definition
Incident Objectives	Statements of guidance and direction necessary for the selection of appropriate strategies, and the 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.
Industry	For the purpose of these guidelines, industry means the oil and hazardous substance industry required to submit response plans and comply with exercise requirements, as specified in appropriate vessel, facility, pipeline, and Outer Continental Shelf platform regulations. The USCG, EPA, PHMSA, NEB and AER administer these regulations.
Initial Notification	The process of notifying necessary Company personnel and necessary agencies having jurisdictional authority that a spill has occurred and including all pertinent available information surrounding the incident.
Initial Remediation	Remedial action at a site to eliminate acute hazards associated with a spill. An initial clean-up action is implemented at a site when a spill of material is an actual or potentially imminent threat to public health or the environment, or difficulty of clean-up increases significantly without timely remedial action. All sites must be evaluated to determine whether initial clean-up is total clean-up; however, this will not be possible in all cases due to site conditions (e.g., a site where overland transport or flooding may occur).
Injury	A measurable adverse change, either long- or short-term, in the chemical or physical quality of the viability of a natural resource resulting either directly or indirectly from exposure to a discharge of oil, or exposure to a product of reactions resulting from a discharge of oil.
In-Situ Burning	A technique that involves the controlled burning of an oil spill at the location of the spill.
Integrated Contingency Plan ("ICP")	A plan to provide guidance to Company personnel on the immediate procedures, notifications and sustained operations in the event of an emergency response incident.
Interim Storage Site	A site used to temporarily store recovered oil or oily waste until the recovered oil or oily waste is disposed of at a permanent disposal site. Interim storage sites include trucks, barges, and other vehicles, used to store waste until the transport begins.
J	
Joint Information Center ("JIC")	A facility established within, or near, the Incident Command Post where the Information Officer and staff can coordinate and provide incident information to the public, news media, and other agencies or organizations. The JIC is normally staffed with representatives from the jurisdiction having authority and the Responsible Party.

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Term	Definition
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 (e.g., city, county, provincial/state, or Federal boundary lines), or functional (e.g., police department, health department, etc.). (See Multi-Jurisdiction).
Jurisdictional Agency	The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.
L	
Lead Agency	The government agency that assumes the lead for directing response.
Lead Provincial/ State Agency	The agency that coordinates provincial/state support to Federal and/or Local governments or assumes the lead in the absence of Federal response.
Liquid Wastes	Liquids contaminated with solids or mixed with other liquids (e.g., emulsion, contaminated soil).
Local Emergency Planning Committees ("LEPC")	A local governmental entity that identifies and catalogues potential hazards, identifies available resources, mitigates hazards when feasible, and has input into emergency plans for operations occurring in their geographical jurisdiction. According to the U.S. National Response Plan the initial response to an emergency incident or disaster is by local officials. The role of the LEPC is to anticipate and plan the initial response for foreseeable disasters in their jurisdiction.
Local On-Scene Coordinator ("LOSC")	Local Government Representative.
Location Boundaries	Areas where oil may be expected to impact during the first day of a spill event.
Lower Explosive Limit ("LEL")	Air measurement to determine the lowest concentration of vapours that support combustion. This measurement must be made prior to entry into a spill area.
N	
National Contingency Plan ("NCP")	The plan prepared in the U.S. under the FWPCA and CERCLA, and revised from time to time.
National Response Center ("NRC")	The U.S. Federal authorities to be the first notified in the event of an incident.
Natural Resource	Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other resources belonging to, managed by, held in trust by, appertaining to or otherwise controlled by the province/state, federal government, private parties, or a municipality.

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Term	Definition
Natural Resource Damage Assessment ("NRDA")	The process of collecting and analyzing information to evaluate the nature and extent of injuries resulting from an incident, and determine the restoration actions needed to bring injured natural resources and services back to baseline and make the environment whole for interim losses. (15CFR§990.30)
National Incident Management System ("NIMS")	Identifies concepts and principles that answer how to manage emergencies from preparedness regardless of their cause, size, location or complexity.
Non-Persistent or Group I Oil	Refers to a petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions -- a) At least 50% of which by volume, distill at a temperature of 340° C (645° F); and b) At least 95% of which by volume distill at a temperature of 370° C (700° F).
Non-Petroleum Oil	Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.
O	
Oil or Oils	Naturally occurring liquid hydrocarbons at atmospheric temperature and pressure coming from the earth, including condensate and natural gasoline, and any fractionation thereof, including, but not limited to, crude oil, petroleum gasoline, fuel oil diesel oil, oil sludge, oil refuse, and oil mixed with wastes other than dredged spoil.
Oil Spill Cooperative (Mutual Aid)	Multi-company cooperative organization developed by industry to assist with oil spill response and clean up. Typically, manpower and equipment are identified by a company on a voluntary basis.
Oil Spill Response Organization ("OSRO")	An entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provide required response resources.
Oil Spill Response Contractors	Persons/Companies contracted to undertake a response action to contain and/or clean up a spill.
Oily Waste	Oil-contaminated waste resulting from an oil spill or spill response operations.
Operations Section Chief	A member of the General Staff who establishes the tactics to meet the incident objectives and directs all operational resources.
Owner or Operator	Any person, individual, partnership, corporation, association, governmental unit or public or private organization of any character.

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Term	Definition
P	
Persistent Oil	Under OPA 90, persistent oils are petroleum-based oils that do not meet the distillation criteria for non-persistent oil. Persistent oils are classified based on specific gravities as follows: • Group II – specific gravity less than .85; • Group III – specific gravity between .85 and less than .95; • Group IV – specific gravity .95 to and including 1.0.; and • Group V – specific gravity greater than 1.0.
Physical Security	Security systems and architectural features that are intended to improve protection (e.g., fencing, doors, gates, walls, turnstiles, locks, motion detectors, vehicle barriers, hardened glass).
Post-Emergency Response	The portion of a response performed after the immediate threat of a release has been stabilized or eliminated and clean-up of the sites has begun.
PREP	National Preparedness for Response Exercise Program – workable exercise program which meets the intent of section 4202(a) of the Oil Pollution Act of 1990 (OPA 90) in the United States. Enbridge follows PREP guidelines across the system in both the United States and Canada.
Procurement Unit	Functional unit within the Finance/Administration Section responsible for financial matters involving vendor contracts.
Q	
Qualified Individual ("QI")	A qualified individual is the person who is authorized to do the following: (1) activate and engage in contracting with oil spill removal organizations; (2) act as a liaison with the on-scene coordinator; and (3) obligate funds required to effectuate response activates. For Enbridge, this person is typically the Incident Commander.
R	
Regional Response Team ("RRT")	A U.S. Federal response organization, consisting of representatives from specific Federal and state agencies, responsible for regional planning and preparedness before an oil spill occurs and for providing advice to the FOSC in the event of a major or substantial spill.
Response Activities	Refers to the containment and removal of oil from the water and shorelines, the temporary storage and disposal of recovered oil, and the taking of other actions as necessary to minimize or mitigate damage to the environment.
Response Guidelines	Guidelines for initial response that are based on the types of product involved in the spill; these guidelines are utilized to determine clean-up methods and equipment.

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Term	Definition
Response Plan	A practical plan used by Industry for responding to a spill. Its features include (1) identifying the notification sequence, responsibilities, response techniques, etc. in an easy to use format; (2) using decision trees, flowcharts, and checklists to ensure the proper response for spills with varying characteristics; and (3) segregating information needed during the response from that required by regulatory agencies to prevent confusion during a spill incident.
Response Resources	The personnel, equipment, supplies and other capability necessary to perform the Response Activities identified in a Response Plan.
Responsible Party	The Owner/Operator of the vessel or facility that is the spill source.
Risk	Potential for damage to or loss of an asset. Risk, in the context of process security, is the potential for a catastrophic outcome.
Rivers and Canals	A body of water confined within the Inland area that has a projected depth of 12 feet or less, including the Intracoastal Waterway and other waterways artificially created for navigation.

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Term	Definition
S	
Safety-Related Condition (Gas Only)	Any condition on a jurisdictional pipeline facility that lies within 220 yards of any building intended for human occupancy or an outdoor place of assembly or is within the right-of-way (ROW) of an active railroad or an asphalt/concrete paved road/ street / highway that meets one of the following criteria: • A material defect, physical damage or localized pitting on an effectively coated and cathodically protected pipeline operating at or above 20% SMYS and required repair as per Company procedure, • A leak in a pipeline that is characterized by the need for immediate corrective action to protect the public or property, • Unintended movement or abnormal loading by an environmental cause (e.g., earthquake, landslide, flood) that impairs the serviceability of a pipeline, applying sudden occurring movement in particular, • Any equipment malfunction or operating error that causes the pressure in a pipeline to exceed the maximum allowable operating pressure (MAOP) and the plus allowed build-up or overpressure, and • A shutdown of the pipeline or a reduction in operating pressure of 20% or more that is done in reaction to an imminent hazard or a known unsafe condition.
Site Conditions	Details of the area surrounding the facility, including shoreline descriptions, typical weather conditions, socioeconomic breakdowns, etc.
Site Emergency	Means an incident has occurred and the entire terminal, with the exception of critical employees has been sheltered on-site or evacuated.
Site Safety and Health Plan ("SSHP")	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, personal protection equipment ("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.
Site Security and Control	Steps that must be taken to provide safeguards needed to protect personnel and property, as well as the general public, to ensure an efficient clean-up operation.
Site Supervisor	A generic term that refers to the employee responsible for the location (i.e., Pipeline Maintenance ("PLM") coordinator/supervisor, technician, terminal supervisor), or designate.
Skimmers	Mechanical devices used to skim the surface of water and recover floating oil. There are four basic categories of skimmers; suction heads, floating weirs, oleophilic surface units, and hydrodynamic devices. These vary in efficiency depending on the type of oil and size of spill.

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Term	Definition
Sorbents	Materials ranging from natural products to synthetic polymeric foams placed in confined areas to soak up small quantities of oil. Sorbents are very effective in protecting walkways, boat decks, working areas, and previously uncontaminated or cleaned areas.
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	The number of organizational elements that 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.
Spill Observer	The first Company individual who discovers an oil spill. This individual must function as the responsible person-in-charge until relieved by an authorized supervisor.
Spill Response	All actions taken in responding to spills of oil and hazardous materials (HAZMAT), i.e., receiving and making notifications; information gathering and technical advisory phone calls; preparation for and travel to and from spill sites; direction of clean-up activities; damage assessments; report writing, enforcement investigations and actions; cost recovery; and program development.
Spill Response Personnel	Federal, Provincial/State, Local agency, and industry personnel responsible for participating in or otherwise involved in spill response. All spill response personnel will be preapproved on a list maintained in each Company region.
Staging Area	Location established where resources can be placed while awaiting a tactical assignment. The Operations Section manages Staging Areas.
Stakeholders	Any person, group, or organization affected by, and having a vested interest in, the incident and/or the response operation.
State Emergency Response Commission ("SERC")	A group of officials in the U.S. appointed by the Governor to implement the provisions of Title III of the Federal Superfund Amendments and Reauthorization Act of 1986 ("SARA"). The SERC approves the State Oil and Hazardous Substance Discharge Prevention and Contingency Plan and Local ERPs.
Strategy	The general plan or direction selected to accomplish incident objectives.

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Term	Definition
Submerged Oil	Oil suspended beneath the surface or that sinks to the bottom of a body of water.
Substantial Threat of a Discharge	Any incident or condition involving a facility that may create a risk of discharge of Crude Oil and Oil. Such incidents include, but are not limited to storage tank or piping failures, above ground or underground leaks, fires, explosions, flooding, spills contained within the facility, or other similar occurrences.
T	
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.
Technical Specialists	Personnel with special skills or technical expertise who can be used anywhere within the ICS organization.
Temporary Flight Restrictions ("TFR")	Temporary airspace restrictions for non-emergency aircraft in the incident area. TFRs are established by the FAA to ensure aircraft safety and are normally limited to a five-nautical-mile radius and 2000 feet in altitude.
Transfer of Command	An ICS term which means the process of moving the responsibility from one incident command team to another. This term primarily relates to the Incident Commander.
U	
Unusually Sensitive Area ("USA")	A drinking water or ecological resources area that is unusually sensitive to environmental damage from a hazardous liquid pipeline release.
V	
Vendors	Vendors are defined as external parties that provide HAZWOPER training following OSHA standards in *29CFR§1910.120* and also satisfy the OSHA recommendations for instructors in *29CFR§1910.120*; Appendix E "*Training Curriculum Guidelines*".
W	
Wildlife Rescue	Efforts made in conjunction with the appropriate jurisdictional agencies to retrieve, clean, and rehabilitate birds and wildlife affected by an oil spill.
Workers	Company employees and contract workers.
Worst-Case Discharge ("WCD")	Worst Case Discharge is described in detail in Annex 4 of applicable Regional Integrated Contingency Plans.

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1.2.3 Conversion Table

Imperial / Metric Conversions

English to Metric		Metric to English	
Length			
1 inch (in)	2.54 centimetres (cm)	1 cm	0.393 in
1 foot (ft)	0.3048 meters (m)	1 m	3.28 ft
1 mile (mi)	1.609 kilometres (km)	1 km	0.621 mi
1 nautical mile (nm)	1. 852 kilometres (km)	1 km	0.540 nm
Area			
1 square foot (ft^2)	929 square centimetres (cm^2)	1 cm^2	0.0129 ft^2
1 square foot (ft^2)	0.0929 square metres (m^2)	1 m^2	10.76 ft^2
1 acre (ac)	4.047 square metres (m^2)	1 000 m^2	0.247 ac
1 square mile (mi^2)	2.59 square kilometres (km^2)	1 km^2	0.386 mi^2
Volume			
1 US Gallon (US gal)	3.785 litres (l)	1 l	0.264 U.S. gal
1 Imperial Gallon (Imp gal)	4.546 litres (l)	1 l	0.220 imp gal
1 Barrel	0.16 cubic metres (m^3)	1m^3	6.29 bbl
1 Barrel (bbl)	159 litres (l)	1 l	0.00629 bbl
Velocity			
1 mile per hour (mph)	1.609 kilometres/hr (kph)	1 km/h	0.621 mph
1 nautical mile per hour (knot)	1.852 kilometres/hr (kph)	1 km/h	0.54 knot
1 foot per second (fps)	0.3048 metre/second (m/sec)	1 m/sec	3.28 fps
1 foot per second (fps)	1.097 kilometres/hr (kph)	1 km/h	0.911 fps
Weight			
1 pound (lb)	0.454 kilogramme (kg)	1 kg	2.205 lb
1 short ton (st)	0.907 tonne (mt)	1 t	1.102 st
1 long ton (lt)	1.016 tonne (mt)	1 t	0.984 lt
Temperature			
$^oF = (^oC\ (9) \div 5) + 32$			
Pressure			
1 pound per square inch (psi)	0.0689 bar	1 bar	14.504 psi
1 pound per square inch (psi)	6.89 kilopascals (kPa)	1 kPa	0.145 psi
1 pound per square inch (psi)	0.704 metre (water column) (mwc)	1 m CE	1.42 psi
1 inch mercury (in Hg)	25.4 mm mercury (mm Hg)	1 mm Hg	0.0394 in Hg
1 atmosphere (atm)	1.033 kg/cm^2	1 kg/cm^2	0.968 atm
1 atmosphere (atm)	760 mm mercury (mm Hg)	1 mm Hg	0.00132 atm
Flow			
1 gallon per minute (gpm)	0.227 $metre^3$ per hour (m^3/hr)	1 m^3/h	4.403 gpm
1 cubic foot per minute (cfm)	1.699 cubic meters per hour (m^3/hr)	1 m^3/h	0.5886 cfm
1 barrel per day (bph)	0.1104 litres per minute (lpm)	1 lpm	9.057 bpd
Power			
1 horsepower (hp)	0.746 kilowatt (kw)	1 kw	1.341 hp

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1.3 Purpose and Scope of Plan

The purpose of this Plan is to provide guidance to Company personnel on the immediate procedures, notifications and sustained operations in the event of an emergency originating at any Company area of operations. The Plan's primary purpose is to ensure an effective, comprehensive response that will prevent injury or damage to Company employees and the public and mitigate any possible impact on the environment.

The objectives of the Plan are to:

- Outline the training and exercise program that prepares Enbridge responders.
- Define alert and notification procedures to be followed when an emergency occurs.
- Describe response teams' roles and responsibilities under the Incident Command System ("ICS").
- Document equipment, manpower and other resources available to assist with an emergency.
- Provide guidelines for handling emergency response operations.
- Define organizational lines of responsibility to be adhered to during an emergency
- Describe the Operating Regions or Response Zones and determine the worst case discharge to minimize impacts to environmentally sensitive areas.
- Apply an "All Hazards, All Risks" approach to Emergency Response

The format of the plan aligns with the U.S. National Response Team's ("NRT") Integrated Contingency Plan ("ICP") Guidance (Federal Register #61: 28641 28664). The guidance suggests formatting the ICP into two parts. The "Core" outlines information that is applicable across all operating regions or response zones and is followed by a series of "Annexes" that contains specific information per Response Zone. The ICP is a mechanism to address multiple regulations that the Company is governed by throughout the United States and Canada.

This ICP demonstrates the response capabilities available by the Company to respond to any product release. It is not a guarantee of what will occur or the equipment/deployment sequencing that will be used in an actual spill event. Nothing in this Plan is intended to limit the discretion of Company employees to select any sequence of actions or to take whatever time they deem necessary to maximize the effectiveness of the response, consistent with safety considerations.

This Plan applies to emergency response operations carried out by the on-site field personnel and the Field Response Team ("FRT"), Regional Incident Management Team ("IMT"), Incident Support Team ("IST"), Crisis Management Team ("CMT"), and Enbridge Enterprise Emergency Response Team ("E3RT") for any type or size of incident that may occur. It contains guidance for personnel to follow in the event of a release or other emergency situation involving Company assets.

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This Plan represents a planning standard, but is not and should not be regarded as a performance guarantee. Response operations in any spill event will be tailored to meet the actual circumstances.

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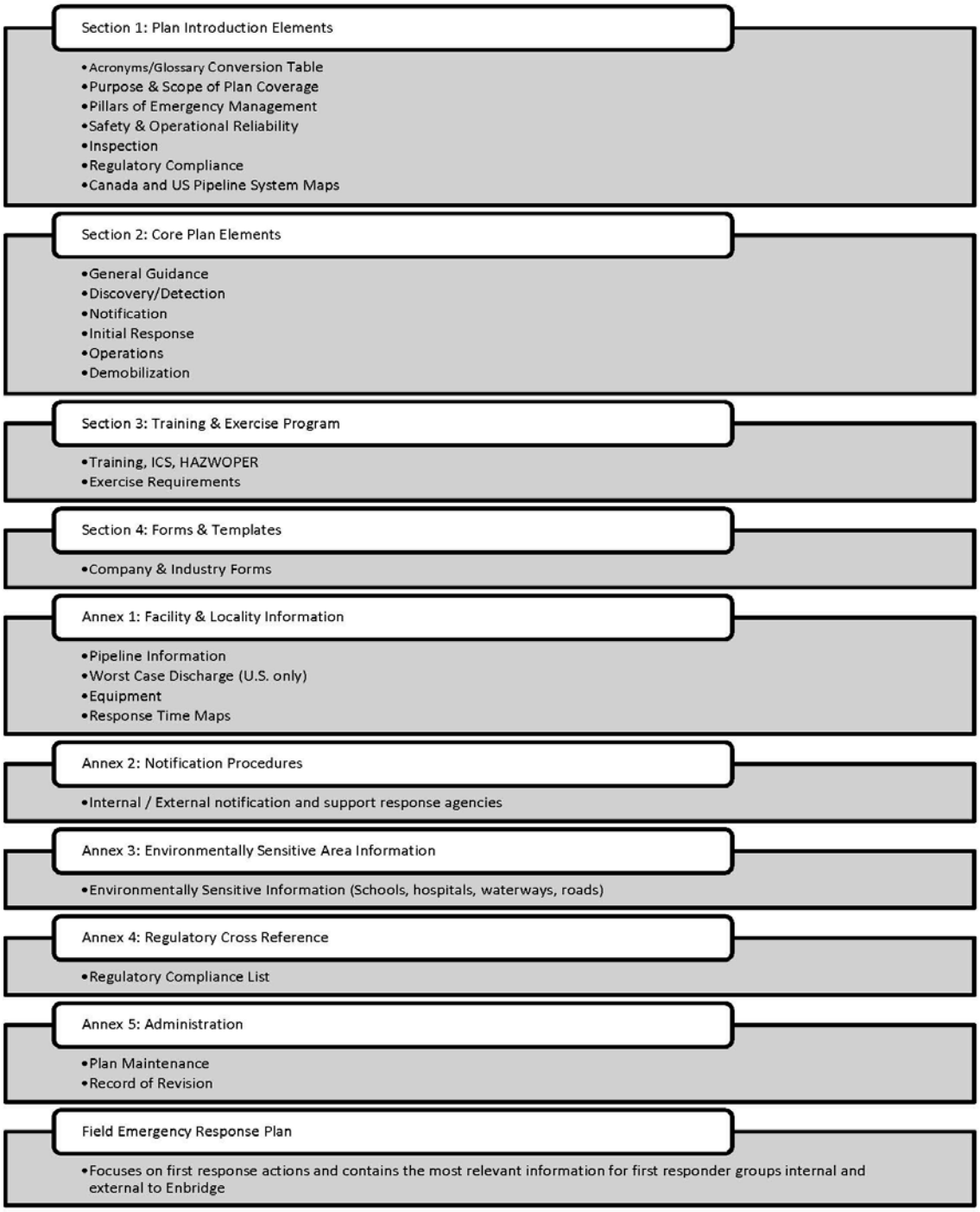
1.3.1 ICP Format Overview



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1.4 Pillars of Emergency Management

The four pillars of emergency management are: prevention and mitigation, preparedness, response, and recovery. All four pillars link to the environmental management system. *Figure 1-The Emergency Management Cycle* shows linkages between programs and processes.

Mitigation & Prevention
Enbridge takes an "all hazards" approach to mitigation and prevention which includes programs, plans and actions intended to reduce or remove the effects of an emergency incident, and preventing exposures from turning into larger emergency incidents with long-term significant impacts.

Preparedness
Preparedness includes the programs, plans, and actions taken prior to an emergency incident to ensure that Enbridge can deliver an effective response. Despite efforts made through mitigation and prevention, emergency incidents can occur and preparing for an effective response and recovery is critical.

Response
Response is the activation, mobilization, and coordination of all necessary resources and activities to manage a hazard, exposure, or a threat's immediate consequences as it escalates into and exists as an emergency or elevated threat level.

Recovery
Recovery includes the programs, plans and actions which aim to restore the affected area back to its pre-incident or better condition. Recovery programs and activities should ensure that resources (people, teams, and equipment) are replaced/replenished/debriefed and the response is reviewed as part of a continuous improvement process which feeds back into the full Emergency Management Cycle.

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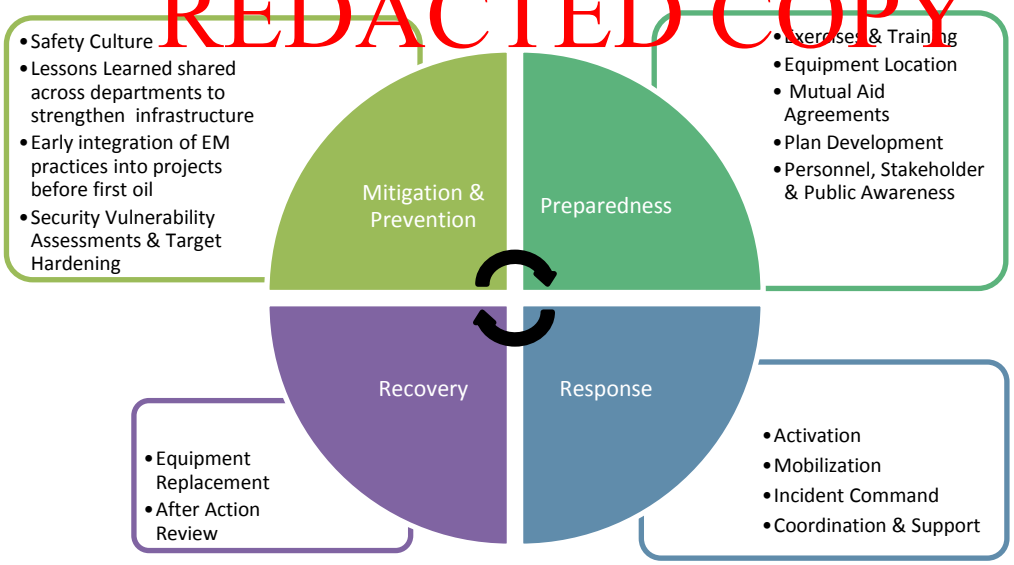

Figure 1: The Emergency Management Cycle

The Company takes action to mitigate and prevent emergencies from occurring; *Section 1.5 – Safety and Operational Reliability* and *Section 1.5.7 – Inspections* provide an overview of these efforts. Despite efforts made through mitigation and prevention, emergency and security events can occur. *Section 2: Core Plan Elements* is designed to guide the Company through the response phase.

This document and all response activities support the Enbridge LP Environmental Policy. The Company will minimize the consequences of emergency events by ensuring prompt and effective response.

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1.4.1 Enbridge Emergency Response and Support Teams Hierarchy

Enbridge's Emergency Response has been structured to ensure that appropriate resources and support can be deployed to suit the complexity and severity of the emergency, from the boots on the ground (Field Response Team) to additional levels of support as needed. Both tactical and strategic response and support has been considered.

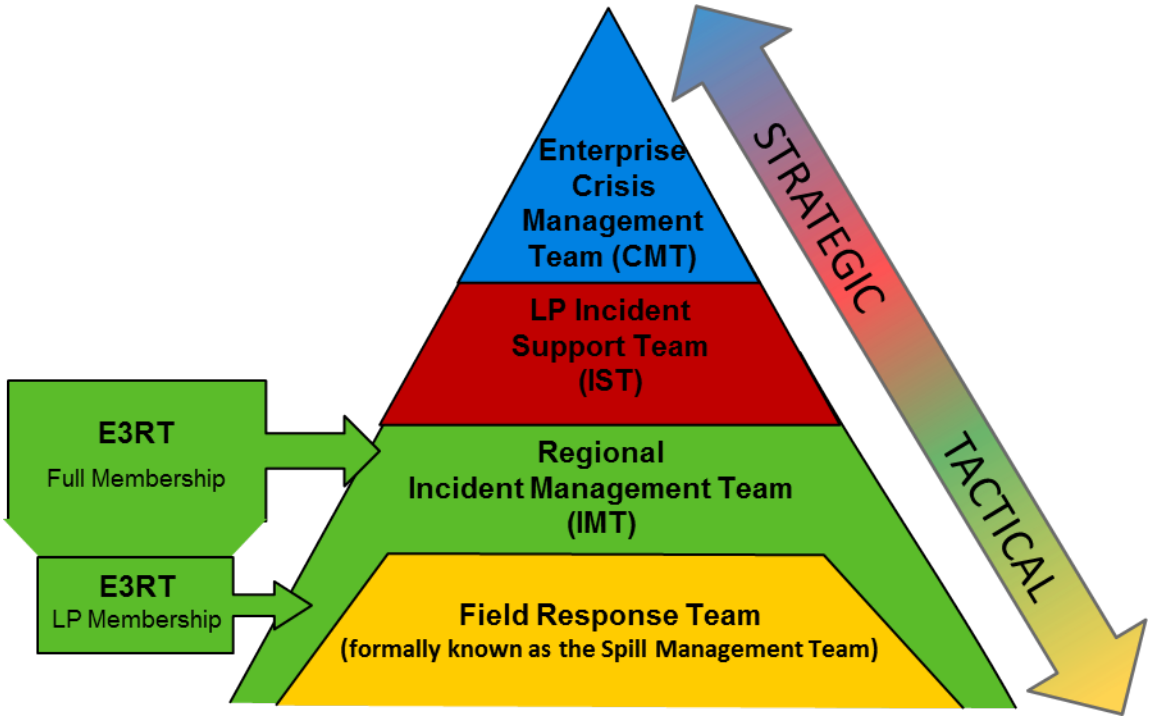

Figure 1.4.1a Emergency Response and Support Structure

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Each team's primary objective is described below as well as the suggested guidance document(s) which further describes the team's roles, responsibilities and procedures.

Enterprise Crisis Management Team – Strategic (EXTERNAL TO IMS 07)

As identified in the Enterprise Crisis Management Plan (external to this framework and IMS 07): Responsible for "Actions taken away from the scene to support and assist the IST and [IMT] in planning, business recovery projects and address the implications of the problem and its potential on the Company's viability, operability and credibility"

LP Incident Support Team - Strategic

Actions taken at and/or away from the incident scene to support the IMT, facilitate planning, and manage business recovery projects.

Incident Management Team – Tactical & Strategic (Regional)

Actions taken at and/or away from the incident scene to support tactical response operations, facilitate planning, and address the immediate concerns of the public and government agencies. *Guiding Plan: Integrated Contingency Plan.*

LP Membership – Enbridge Enterprise Emergency Response Team
At the request of the Regional Incident Management Team (IMT), the LP membership of E3RT will provide LP mentorship to the IMT, and/or fill substantive roles in the IMT. LP members would deploy first, followed by the remainder of the E3RT membership for future operational periods.
Full Membership – Enbridge Enterprise Emergency Response Team
At the request of the Regional Incident Management Team, the full membership of this cross-business unit team of individuals, who are specially trained to support significant incidents, will fill roles in the IMT.

Field Response Team - Tactical

Actions taken by responders at an incident scene to directly attack the problem and its consequences.
Guiding Plans: Field Emergency Response Plan (Integrated Contingency Plan), Tactical Response Plan/Control Point Maps, Pre-Fire Plan and other tools

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1.5 Safety and Operational Reliability

1.5.1 Corrosion Mitigation

For external corrosion prevention, the Company generally manages corrosion of buried pipelines by using approved long-life pipeline coatings supplemented with cathodic protection. Above-ground facilities are generally inspected annually and provided with protective coating systems to prevent corrosive deterioration. These primarily include buildings, above-ground pipelines and tanks.

In order to prevent internal corrosion of the pipelines, the Company may use one or more of the following methods; corrosion inhibitor injection or mechanical cleaning pigs. To monitor the both internal and external corrosion, the Company performs inspections including high population density areas and environmentally sensitive areas with inline inspection tools, where appropriate. Some pipelines may be hydrostatically tested.

1.5.2 Facility Spill Mitigation

Several spill mitigation measures are built into the design of facilities and emergency shutdown procedures. The following spill mitigation measures are found in the current design Company standard:

- Gas and fire detection alarms announced in Control Center for immediate shut down and isolation;
- Remotely-operated, electrically-actuated isolation valves;
- Releases resulting from pump seal failures are piped to sump tanks;
- Above ground piping in stations to allow visual inspection and early detection of leaks; and
- In all regions except Express Platte there are buildings over pumping stations to contain spills and any spray resulting from a release. On-site and on-call employees are trained as initial responders, and would focus on public/employee safety, isolation and containment upon arriving at any spill.

The Company has a number of safety systems and practices in place to prevent the occurrence and mitigate the subsequent consequences of any release. The systems are designed to alert operators with alarms. Pipeline operators are trained to respond to the various system alarms in order to identify, and mitigate the consequences immediately. These systems include:

- Regularly scheduled visual and aerial monitoring and inspections
- Marker signs and signage with emergency contact number for the public
- System wide third-party alerts/emergency telephone line in the Control Center
- The Supervisory Control and Data Acquisition (“SCADA”) system
- Local Control System sensors and shutdown, isolation capability
- Scheduled line balance calculations

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- Computational Pipeline Monitoring ("CPM") Systems, based on DNV-GL SPS, Atmos Pipe and/or in-house developed software for leak detection and system protection
- High and low pressure alarms
- Leak Prevention practices and procedures
- Release detection equipment and procedures
- Pipeline and breakout tank inspection and testing procedures
- Recognition of emergency conditions and prediction of the consequences
- Leak response actions
- Public Awareness and education.

The routine responsibilities that ensure releases will be detected and mitigated as soon as possible by personnel may include, but are not limited to the following:	
✓	Regularly scheduled visual and aerial monitoring
✓	Routine walk-through and monitoring of process equipment to ensure proper operation of all equipment at each facility
✓	Immediate response to alarms and signals that may indicate a possible release
✓	Identification, de-energizing the system, isolation and containment of a release as soon as safely possible
✓	Notify the Regional on-call representative

1.5.3 Leak Detection Systems

The Company has a comprehensive approach to leak detection where pipelines are monitored for possible leaks using multiple complementary methods. These include CPMs, scheduled line balance calculations, Controller monitoring, visual surveillance and internal line inspection tools. Each method has a different approach featuring differing technology, resources and timing. Used together, these methods provide a complementary and comprehensive leak detection strategy intended to mitigate the consequences of any release.

Visual Inspection of Facilities & Pipeline Right-of-Way
Line patrols (aerial and ground) and third-party reports of oil or oil odors are used to identify leaks. Aerial line patrols are performed at intervals not exceeding two weeks and managed by Field Operations. Both aerial and ground patrols can also be completed whenever there are concerns about pipeline integrity. Third-party reports are handled through the emergency telephone line, managed by the Control Center.

Marker Signs
ROW marker signs are installed and maintained at road and water crossings and other noticeable points and provide an emergency 24-hour telephone number to be used by any person wishing to report a concern including a pipeline leak.

Third-Party Damage Prevention & Reporting System
If the systems are properly designed, constructed, operated and maintained, then the most probable cause of release is third-party damage. In order to minimize any damage caused by a third-party a number of steps may be taken, including but not limited to the following:

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	Prevention of Third-Party Damage
✓	The facilities are designed to reduce the chance of third-party damage. For example, most of the facilities are buried or located within fenced and locked areas
✓	Inspectors are onsite during any Enbridge work near a pipeline
✓	Areas especially sensitive to third-party damage are road, railroad, and water crossings. Pipelines in these areas usually have increased pipeline wall thickness, burial depth, or the pipeline is encased to reduce the chance of damage
✓	Company participates in one-call pipeline locating and notification systems where available
✓	Company conducts education programs to reduce the possibility of third-party damage

The Company's Third-Party Reporting System allows external parties to report visible oil or oil odors. The Company manages third-party reports through the emergency telephone line, and communicates with affected public and local emergency officials through its Public Awareness Program ("PAP"). The Company may also conduct focused additional patrols upon review of the status of a pipeline.

SCADA Description & Controller Monitoring

The SCADA system collects and displays a comprehensive set of pipeline operating data, including flows and pressures updated in real-time. The Pipeline Controller monitors this data, to identify unexpected operational changes, such as pressure drops, that may indicate a leak. Additional sensors monitored through SCADA such as the detection of combustible gases, pump seal failures, equipment vibration levels, leak alarms and sump levels can also be used by the Controller to identify potential leaks.

The SCADA system provides automatic backup pressure protection through a number of subroutines, including an extension to the Line Pressure Monitor ("LPM") alarm system. The LPM alarm system monitors station discharge and suction pressures and can initiate set-point reductions, unit shutdowns, or entire line shutdowns as necessary to avoid overpressure situations. In addition to SCADA's primary functions, it runs several analytical tools, including the generation of preconfigured or customized graphical trends and reports that may be used in the analysis of pipeline operations and that assist in the assessment of operational changes.

Local Control System sensors and shutdown description

Locally, the mainline pump station's control system is comprised of numerous instrumentation and electrical devices that are all connected directly or indirectly to a Programmable Logic Controller ("PLC"). The PLC's main function is to control, monitor, and protect the station and various electrical equipment from overpressure, surges, abnormal operating conditions, and other anomalies by shutting down and locking out the appropriate equipment in order to protect the environment, facilities, public, and station personnel.

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Scheduled line balance calculations

These are calculations of oil inventory and performed at fixed intervals, typically every two and 24 hours. A rolling 24-hour calculation based on volume balance is completed at a specific frequency each day. The purpose of these calculations is to identify unexpected losses of pipeline inventory that may indicate a possible leak. The Company utilizes line balance calculations within the Commodity Movement Tracking system.

Computational Pipeline Monitoring System (CPM) – description including critical instrumentation

The Company uses one or more CPM systems as its primary real-time system for detecting leaks on its liquid pipelines. A CPM is a computer-based monitoring approach that uses continuous measurements of pipeline conditions. This is an industry standard for dedicated leak detection. The industry standard that defines CPM is *API 1130*. The CPM systems are designed to meet the requirements of *CSA Z662* Annex E, and *API 1130*.

Real-time Transient Model (RTTM) based CPMs

A vendor based software application is used to create real-time transient models of the pipeline systems. These models combine a static description of the pipeline including the length, diameter and roughness of pipe with real-time operating data such as flow and pressure. The result is a sophisticated computer model of the pipeline that accurately replicates the real-time behavior of the pipeline.

The Enbridge Material Balance System (MBS) utilizes the RTTM software to detect leaks. The system uses flow measurements to divide the pipeline into one of more volume balance sections and includes overlapping sections when multiple flow measurements are available. It calculates the imbalance in each volume balance section and is optimized to look for various leak sizes. The MBS systems are capable of detecting leaks during all operations, including steady flow, transients, with or without column separation and shutdown/shut-in.

The Automated Pressure Deviation or APD system also uses the RTTM software to detect leaks. This algorithm uses closed valves to divide the pipeline into sections. It is only enabled during shut-in operation but may provide superior leak detection sensitivity during this operation.

Other CPMs used by Enbridge

Enbridge also uses different vendor application software to create a compensated volume balance leak detection system. These systems also segment the pipeline and are optimized to find a variety of different leak sizes. Sophisticated statistical analysis is used to evaluate imbalances. Separate software modules provide leak detection capabilities during flowing and shut down operations.

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Another leak detection layer implemented and developed by Enbridge is the Rupture Detection system (RDS) which uses station suction and discharge pressures and applies pattern recognition algorithms to quickly and reliability detect ruptures.

CPM System - CPM Alarm Analysis procedures

In addition to the pipeline controllers, a dedicated Leak Detection Analyst (LDA) is on shift 24x7 to provide root cause alarm analysis support to the control room. The LDA uses procedures that provide step by step instructions on performing root cause analysis of leak alarms. In addition, the procedure also provides detail on the protocol for communications between the Leak Detection Analyst and the Control Center to ensure consistent, effective alarm analysis and response. Note: This section applies to all Enbridge facilities except the Express Platte Region, which will continue to use their existing systems as described in the Express-Platte General

Routine Inspections

Personnel perform routine station walk-around inspections and terminal rounds when they are on-site for preventative maintenance or repair activities. Equipment and facilities are checked for evidence of leaks or spills in addition to various other observations such as security, equipment operation, etc. The condition of facilities, equipment and tanks are informally observed by personnel on-shift. If issues are observed or repairs required, they are reported through the MAXIMO maintenance management system. Formal preventative maintenance activities are assigned, tracked and documented through MAXIMO, as well. Express Platte Region uses Bentley IVARA as the maintenance management system.

In all regions except Express Platte, formal safety inspections at manned locations are performed quarterly, during which personnel may also detect leaks.

Right-of-Way Patrols

Patrols of the entire Right Of Way (“ROW”) and the land adjacent to the ROW are performed at intervals not exceeding three weeks (21 days), but a minimum of 26 times per calendar year using methods of walking, driving, flying or other appropriate means. Any spill, abnormal surface condition or activity observed by ground personnel or the pilot is immediately reported to the closest attended regional location for further investigation response, or to the Control Center.

Safe Fill

When pipeline receipts or transfers are made, the volumes used in the calculations for space available use a safe fill height as the maximum operating level.

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Receipt Monitoring

Terminal employees coordinate all receipts with pipeline representatives. This involves determination of the volume of each product grade prior to receipt. The receipt progress, incoming volumes and high level alarm signals are monitored at all times when product is being transferred into the terminal from the pipeline by the Control Center.

Tank Gauging

In all regions except Express Platte, each tank scheduled to receive a receipt is gauged prior to receipt to confirm that space is available for the receipt.

High Level Alarms

All tanks are equipped with high level alarms. High level alarms are indicated by an audible signal as well as visual indication in the Control Center. A signal is also sent to the Control Center and requires immediate contact with the facility operator. Alarms are tested periodically in accordance with Company preventive maintenance procedures.

Volume Reconciliation

Tanks are gauged at month end as part of the Company's physical inventory reconciliation program.

Pipe Testing

The Company's Risk Management ("RM") department has extensive testing guidelines of all pipeline systems throughout their entire geographical operational area.

Observations and Documentation

The conditions of tanks and equipment are observed when employees responsible for the operation and maintenance of the terminal are on shift. Documentation of these conditions will be logged periodically at the discretion of the local supervisor.

1.5.4 Oil Inventory Control System

Physical Inventory

This currently serves as the basis for comparing an inventory-reporting period with the previous reporting period. Current practice uses end of month physical inventory calculated in net barrels per petroleum measurement.

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Railroad Facility Throughput

Facility throughput is product leaving a tank through a railroad loading rack with meters. Meters on railroad loading racks are to be calibrated according to a set interval. They are also reconciled in conjunction with physical inventory, taken as well as on a standalone basis. Quantity loaded shall be determined on a net basis using temperature from temperature probes and density from the Micro Motion Corriollis meters, which are mounted at each load arm and measured in gross barrel quantities from meter pulses. These throughput quantities shall be deducted from inventory.

Product Variation

A physical inventory can be taken to compare with the book inventory quantity, if necessary. The difference between the book and physical quantity is a product variation. Variations may be positive or negative. Statistical Process Control is the basis for determining whether this variation should trigger an investigative effort to determine whether product is unknowingly being discharged.

Statistical Process Control

Control limits (both upper and lower) are set for each product variation based upon historical information at each facility. Product variations between the control limits are considered to be satisfactory and do not require an investigation or documentation. These variations inside of limits are considered to be a "random" occurrence that is an inherent part of the control process. The control limits will be periodically checked to determine if they are still valid or whether process changes or improvements have invalidated them.

1.5.5 Public Awareness & Education

The safety of the public and employees and the protection of the environment are of the highest importance to Enbridge. A key component of the Company safety and community involvement program is an effective PAP, which targets those stakeholders who share the Company's goal of safe, reliable and environmentally responsible operations. The Company is committed to effective communications with the Company's key stakeholders through an ongoing, relevant PAP. The goal of Enbridge's PAP is to continually educate those who live, work and play near our systems, as well as police and fire departments and other organizations/agencies about:

- Call or Click Before You Dig programs
- General location of the pipelines, facility or asset
- Safety procedures in the event of an emergency
- Products transported
- Safe working practices when working/excavating near the pipeline
- Description of how Enbridge personnel will work with local response agencies during an emergency to protect people, property and the environment
- Emergency and non-emergency contact information

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Tank Fire Prevention and Protection

Each tank is designed in accordance with API 650, and maintained in accordance with API 653. Specific fire prevention mitigation measures that apply:

- Hazardous area designations and including safe work permit process to restrict hot work;
- Continuous fluid level monitoring by remote Control Center, with graduated high level warning, and high-high level alarm notification to remote Control Center;
- Independent high-high level mechanism;
- Primary and secondary floating roof seals to reduce flammable and explosive emissions;
- Floating tank roof grounding shunts and bonding cables; and
- Tank grounding rods and cables.

The following fire protection measures are found in the current tank design standard:

- Tank spacing, secondary containment and lot grading in accordance with NFPA 30;
- Semi-fixed or fully-fixed foam delivery system designed to address tank rim seal fires;
- Automated roof-top fire detection, with notification to remote Control Center; and
- Hydrant system (as required) for foam delivery or adjacent tank cooling.

Since terminal design standards have evolved over time, not all tanks are equipped with fire protection measures; however a Pre-Fire Plan has been prepared for each individual terminal. These plans contain specific fire protection information for each tank, and are reviewed with local fire departments and specialized tank fire fighters. Tanks that are not equipped with foam delivery systems or hydrant cooling are typically spaced greater than one diameter apart in individual secondary containment areas to reduce the risk to adjacent tanks.

Larger tank terminals are manned at all times. Personnel are trained to respond to incipient fires (up to, and including a rim seal fire) in accordance with the Pre-Fire Plans. Local fire fighters and specialized tank fire-fighting capabilities and resources are also identified in the Pre-Fire Plans for fires beyond the incipient stage. Tank fire foam deployment drills are conducted at all terminals.

Tank Fire Prevention and Protection

Storage Tank Overfill Lines

All overflow or vent lines on bulk storage tanks, as well as the built-in heating oil and gasoline additive tanks, are directed into the tank's secondary containment area.

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Visual Tank / Breakout Tank Inspection

High level alarms on storage tanks are inspected routinely to simulate actual operating conditions to ensure that overfill during tank filling operations are adequately detected.

Tank Inspections Annual, Five year, 20 year

The visual tank inspection will include tank foundation and associated piping. All tankage, pumping equipment, piping and related terminal equipment are inspected every working day for leakage, malfunctions of seals, etc. Storage tanks are inspected monthly and annually and findings are recorded. Facility Operators visually inspect the exterior of aboveground storage tanks. Facility operators visually inspect all tanks each working day for leaks. Daily tank gauges are reviewed for evidence of product loss that would indicate a leak in the tank. Any visible oil leaks from tank seams, gaskets, rivets and/or bolts are corrected immediately.

The visual tank inspection checklist presented below has been included as guidance for inspections and monitoring. Also included in the visual tank inspection will be an inspection of the tank foundation and associated piping. All tankage, pumping equipment, piping and related terminal equipment are inspected every working day for leakage, malfunctions of seals, etc. Storage tanks are inspected monthly and annually and findings are recorded. These records shall be maintained for a minimum of five years.

Check tanks for leaks, specifically looking for:

- Drip marks
- Discoloration of tanks
- Puddles containing stored materials
- Corrosion
- Cracks
- Localized dead vegetation
- Various tank inspections are performed in addition to normal terminal rounds.

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Visual Tank / Breakout Tank Inspection cont.

Monthly Inspections

Visually inspect the exterior of aboveground storage tanks monthly for:

- Evidence of leaks (e.g., on shell, flanges and mixers)
- Changing conditions (e.g., shell distortions, settlement or heaving and active corrosion) oil or water in tank lot/pad or on roof; and
- Condition of the foundation, paint coatings, floating roof, insulation systems and appurtenances.

Annual Inspections

Visually inspect aboveground storage tanks annually for:

- Condition of the foundation;
- Condition of platforms and ladders;
- Condition of roof legs, manholes, vents and drains;
- Leaks in pontoons;
- Condition of seals;
- Condition of rescue tank davit; and
- Seal gap measurements as required.

Monthly and annual tank inspections are typically assigned, tracked and documented in the MAXIMO maintenance management system. Formal in-service and out-of-service inspections are also performed, in accordance with API 653

Check foundation for:

- Cracks
- Discoloration
- Settling
- Gaps between tank and foundation
- Damage caused by vegetation roots

Check piping for:

- Corrosion
- Discoloration
- Droplets of stored material
- Bowing of pipe between supports
- Evidence of stored material seepage on valves and seals
- Localized dead vegetation

Visual Tank / Breakout Tank Inspection cont.

Facility operators visually inspect all tanks each work week. Daily tank gauges are reviewed for evidence of product loss that would indicate a leak in the tank. Any visible oil leaks from tank seams, gaskets, rivets and/or bolts are corrected immediately. Tank roof drains and firewall drains are normally kept closed. The Company's major tanks have tank gauges which transmit oil heights to the Operations Control Center, where tank levels are monitored continuously. The tank gauges have alarms set for each tank for high tank level, low tank level, and emergency low tank level. Each tank also has an independent device which gives an alarm for emergency high tank level.

Secondary Containment Inspection

The secondary containment areas shown on the site plans will be inspected on an annual basis. The inspections will include checking for the following:

Dike or berm system:

- Level of precipitation in dike/available capacity
- Proper dike drain operation (Tank lot drainage pattern)
- Excessive debris or vegetation in the tank lot
- Signs of erosion or damage to the tank berm
- Proper warning signs in place (Location/status of pipes, inlets, drainage beneath tanks, etc.)

Secondary containment:

- Cracks
- Discoloration
- Presence of stored materials (standing liquid)
- Corrosion
- Valve conditions

Storm water Drainage

Storm water within a containment structure (station/terminal containment or tank berms) is visually inspected for an oily sheen or suspended solids. If visual inspection indicates that storm water may be contaminated, storm water samples are collected and sent to a laboratory for analysis. Adequate remediation of contaminated storm water is required prior to release. Retention and drainage ponds are inspected for erosion, available capacity, presence of stored material, debris, and stressed vegetation.

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Pipeline Inspections

All pipelines within the Company Pipeline System are monitored on a regular and routine basis. Control Center personnel monitor and control line pressures and product flow rate, operate remote controlled valves, operate pumps and engines, and monitor the type of product currently in the line at any given point. These Control Centers are operated on a 24-hour basis. Should a leak occur, the operators monitoring the lines can have the line shut down within 13 minutes. The operators can then dispatch field personnel to physically inspect the line in the area of the suspected leak.

Lines that are not connected to the SCADA System are generally smaller crude gathering pipelines. These lines are observed regularly by facility/pipeline maintenance personnel. In addition to these inspections, aircraft will fly along the pipeline on a regular schedule to inspect the lines.

Buried Piping

When a leak is detected from a buried pipe, the Company will excavate, examine and evaluate the pipe for the cause of the failure. Localized pipe failures will be repaired or replaced. For extensive pipe failures requiring substantial reconstruction, the Company will upgrade to the standard specified under the applicable regulations.

Elevated Pipes

Elevated pipelines to the loading racks are sufficiently high and the supports adequately protected to prevent tank trucks from accidentally hitting them. Speed limit signs posted at the entrance of each loading rack bay are intended to limit any impact damage to aboveground pipelines.

Dike Drainage

Drainage of precipitation accumulation from dike areas is performed only after inspection of the accumulation to ensure compliance with applicable water quality standards. Any water possessing a film, sheen or discoloration on the surface is not discharged until such sheen has been physically removed with the use of absorbent pads.

Drain valves are sealed and locked at all times except when there is an operator on-site who:

· Inspects the water for a film, sheen, or discoloration;

· Removes any film, sheen, or discoloration;

· Monitors the discharge; and,

· Records the discharge event in the SPCC plan.

Pipe Supports

In accordance with good engineering practice and petroleum industry standards, pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction of the pipeline.

Delivery Lines and Manifold

The facility tests the delivery lines and manifold on an annual basis with a two 2) hour recorded pressure test.

High Level Alarms

High level alarms on storage tanks are inspected routinely to simulate actual operating conditions to ensure that overfill during tank filling operations are adequately detected. Results of high-level alarm inspections are recorded in the SPCC plan once every six months.

Cathodic Protection System

The entire pipeline, including stations and terminals are protected by a cathodic protection system to protect buried piping from external corrosion. Cathodic protection rectifiers are read bi-monthly to ensure proper operation. A full cathodic protection system survey is performed annually, with required remediation actions to be performed within one year.

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1.5.8 Prevention of Security Related Threats

Lighting

Facility lighting is appropriate with the operation and the type and location of the facility to assist in the discovery of discharges and to prevent discharges occurring through acts of vandalism. Lighting at the facility is provided to illuminate tanks, loading racks, offices and entrance/exit gates.

Security Programs

Security must be considered with any incident response for the protection of personnel, the public, the environment and property. The LP security plan is documented in IMS Security Management Program and includes a security incident management process. In addition to the IMS Security Management Program, the regions have developed site specific security procedures. Enterprise security must be immediately notified of any security related incidents. Enterprise Security can also support a region's incident response by activating the Intelligence Officer role of the Incident Command System.

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1.6 Regulatory Compliance – Canada and U.S.

This ICP is based on the National Incident Management System ("NIMS") and the Incident Command System ("ICS"). This Plan utilizes the standard format guidance provided for by the U.S. National Response Team. As such it has been developed to allow assimilation of other Federal, Provincial and State agencies into the Plan.

	The Plan is intended to satisfy the requirements of regulatory agencies mandating written procedures to address planning and response to emergencies, including:
✓	Alberta Energy Regulator ("AER") • Pipeline Act, RSA, c P-15, Sections 35-36 • Pipeline Rules, AR 91/2005, Sections 8, 27 and 76 • AER Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry, 2009 • AER Directive 056: Energy Development Applications and Schedules
✓	• Alberta Environment and Parks ("AEP") Environmental Protection and Enhancement Act, RSA 2000, c.E-12Sections 110 to 112 • Release Reporting Regulation, AR 117/1993
✓	Environment Canada • Canadian Environmental Protection Act 1999, SC 1999, c. 33, Sections 95, 96, 169, 179 Part 8 (Section 193 to 205) • Federal Halocarbon Regulations, 2003, Release Reports, section 32-33
✓	Fisheries and Oceans Canada • Fisheries Act, RSC 1985, c F-14, Section 38(4) – (7)
✓	Manitoba Ministry of Environment • The Environment Act, CCSM, c. E125, Section 30.1 • Notice and Reporting Regulation, MR 126/2010
✓	National Energy Board ("NEB"): • National Energy Board Onshore Pipeline Regulations SOR/99-294,Sections 32-36, 46,52, Incident Reports • National Energy Board Event Reporting Guidelines
✓	Northwest Territories • Environmental Protection Act, RSNWT 1988 c.E-7 Section 5.1 • Spill Contingency Planning and Reporting Regulations, NWT Reg 063-93 • A Guide to Spill Contingency Planning & Reporting Regulations, March 2011 • Indian and Northern Affairs Canada, INAC Guidelines for Spill Contingency Planning, April 2007
✓	Ontario Ministry of Environment • Environmental Protection Act, RSO 1990, c. E.19 Part X (Spills) 2 • Classification and Exemption of Spills and Reporting of Discharges, Ont. Reg 675/98 • Spills Reporting A Guide to Reporting Spills & Discharges, May 2007

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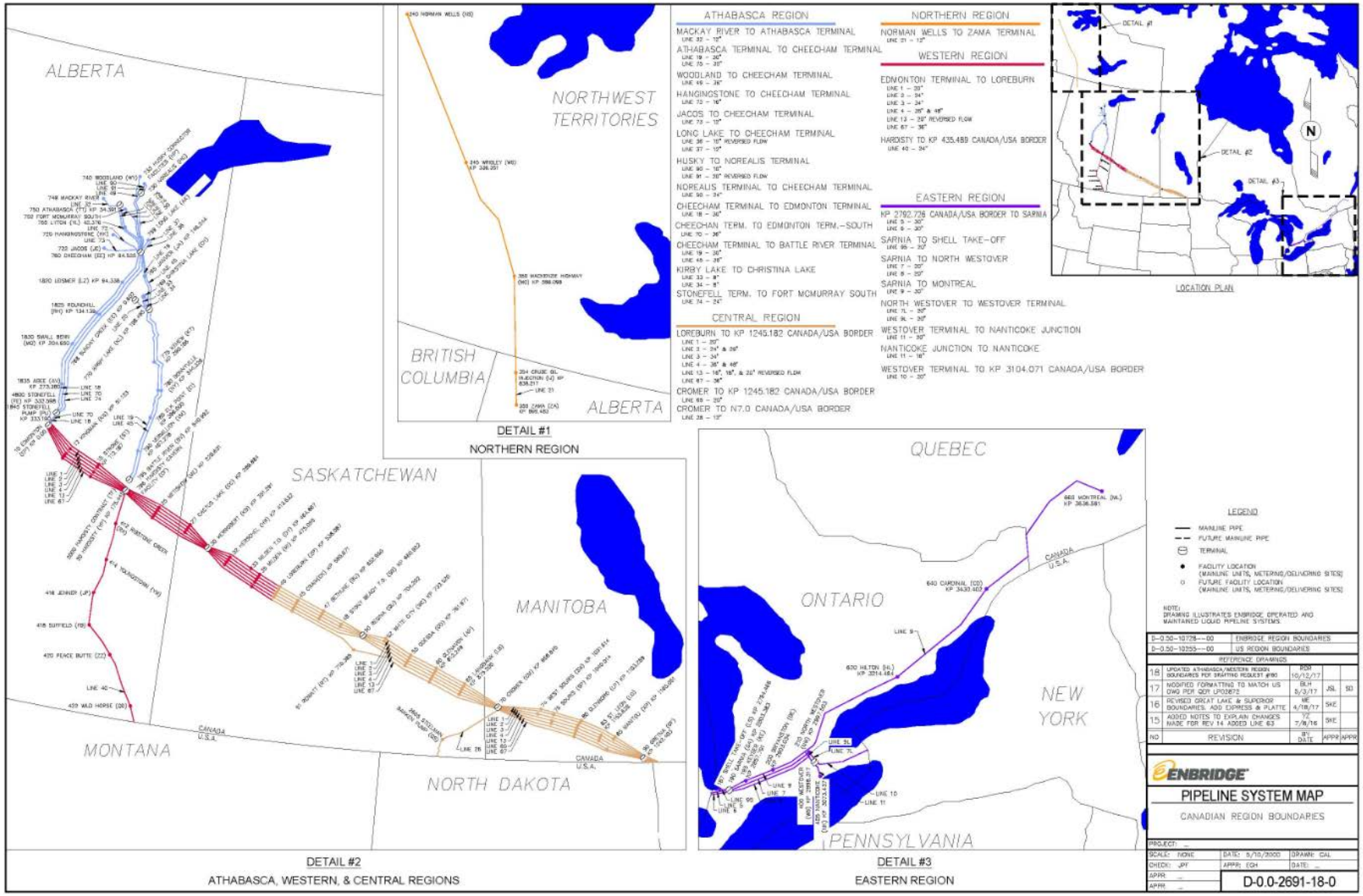
The Plan is intended to satisfy the requirements of regulatory agencies mandating written procedures to address planning and response to emergencies, including:	
✓	Quebec Minister of Sustainable Development, Environment and Action against Climate Change • Environment Quality Act, CQLR, c. Q-2 • Regulation Respecting Halocarbons, QCLR, c. Q-2, r. 29 • Regulation Respecting Hazardous Material, CQLR, c. Q-2, r. 32
✓	Saskatchewan Ministry of Environment • The Environmental Management and Protection Act, 2010, SS 2010, c E-10 -22 , Sections 9-10 • Environmental Spill Control Regulations, Section 4
✓	Saskatchewan Ministry of the Economy • The Emergency Planning Act, SS 1989-90, c. E-8.1 • Pipelines Regulations, 2000, RRS c. P-12.1, Reg. 1, Sections 20-21 • The Oil and Gas Conservation Regulations, 2012, RRS c. O-2, Reg. 6, Section 99
✓	Transport Canada • Transportation of Dangerous Goods Act, 1992, SC 1992, c. 34, Section 18 • Transportation of Dangerous Goods Regulations, SOR/2015-100 Part 8, Accidental Release and Imminent Accidental Release Report Requirements
✓	Transportation Safety Board (“TSB”): • Transportation Safety Board Regulations, SOR/2014-37, Section 4

The Plan is also intended to satisfy the requirements of regulatory agencies (primarily DOT PHMSA) mandating written procedures to address planning and response to emergencies, including:	
✓	Oil Pollution Act of 1990 “OPA 90”
✓	The Department of Transportation’s (“DOT”) regulations as defined in *§194*, *§172.600 Subpart G and* similar regulations issued by the state agencies
✓	The Department of Transportation’s (“DOT”) regulations as defined in *49CFR§195.403*
✓	The Department of Transportation’s (“DOT”) regulations as defined in *49CFR§172.600*
✓	United States Coast Guard (“USCG”), *33CFR§154*
✓	The National Oil and Hazardous Substances Pollution Contingency Plan (“NCP”) and applicable Area Contingency Plans (“ACPs”)
✓	OSHA’s *29CFR§1910*
✓	Applicable State and local requirements
✓	U.S. Environmental Protection Agency's (“EPA”) Oil Pollution Prevention Regulations, *40CFR§112*, that requires a Non-Transportation Related Facility Response Plan
✓	Company has opted to follow the PREP Guidelines for exercise/drilling purposes
✓	American Petroleum Institute (“API”) 1162.

1.7 Canada Pipeline System Map



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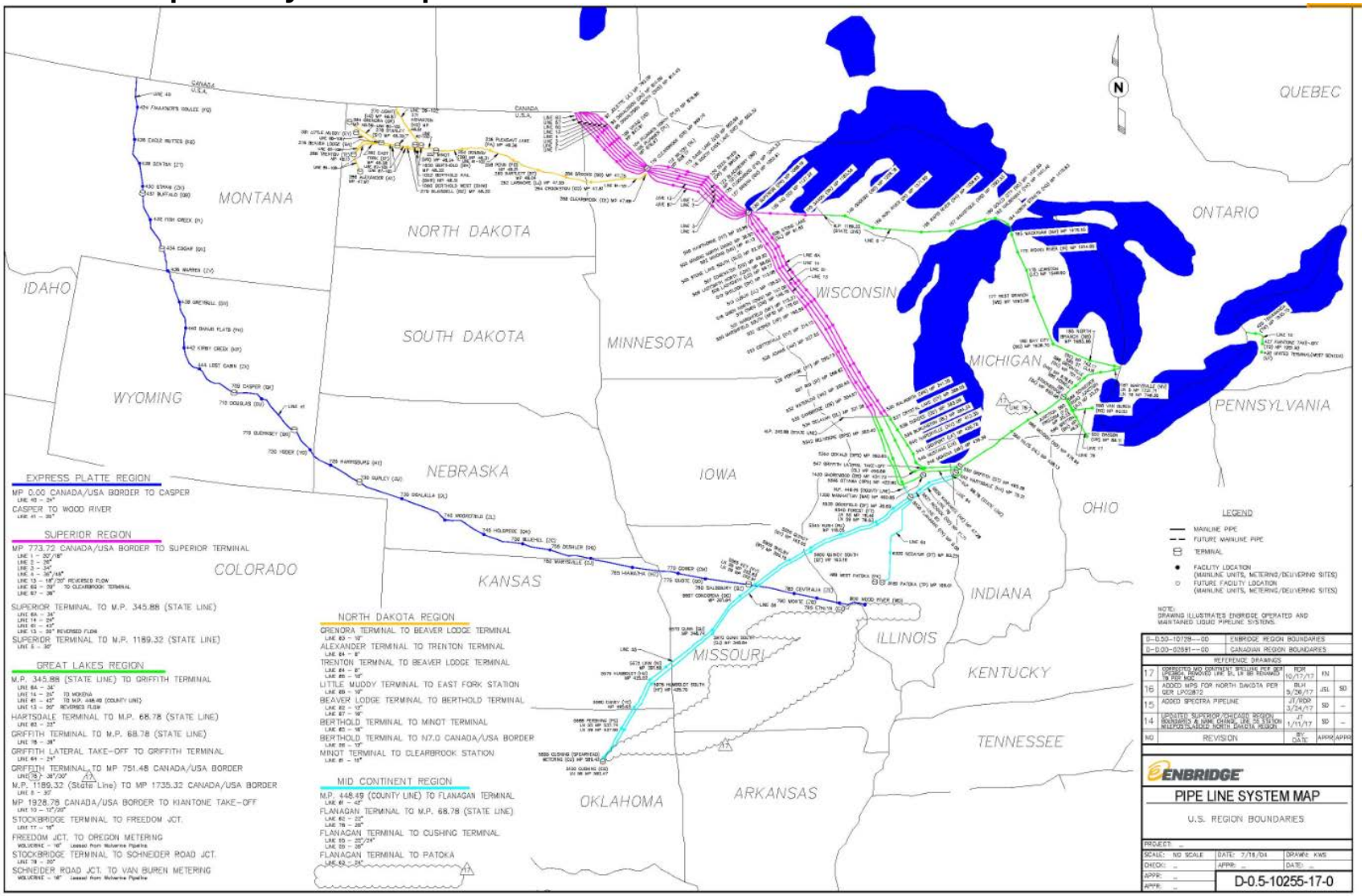
1.8 U.S. Pipeline System Map



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2.0 General Guidance

2.0.1 Guiding Objectives

Section 2 of this document provides guidance on emergency response and management during an incident. Enbridge will prudently over respond to any incident with priorities in the following order:

- **P**eople
- **E**nvironment
- **A**ssets
- **R**eputation

Additionally, during a response, the following **objectives** (what you plan to do in priority order) and **strategies** (how you plan to accomplish objectives) should be considered. Not all objectives apply to all incidents:

Objectives	Strategies
1. Ensure the Safety of Citizens & Response Personnel	• Establish site control (hot zone, warm zone, cold zone and security) • Consider evacuations, as needed • Establish vessel and/or aircraft restrictions • Monitor air in impacted areas • Develop Site Safety and Health Plan (“SSHP”) for response personnel • Ensure safety briefings are conducted • Manage medical emergencies/injuries
2. Control the Source	• Complete emergency shutdown • Initiate temporary repairs • Transfer product
3. Manage Coordinated Response Effort	• Complete or confirm notifications • Activate ICS and facilities (command post, etc.) • Ensure local, Indigenous officials are included in response organization • Initiate emergency response Incident Action Plan (“IAP”) • Ensure mobilization and tracking of response resources and personnel • Complete documentation • Evaluate planned response objectives vs. actual response (debrief)
4. Maximize Protection of Environmentally-Sensitive Areas	• Implement pre-designated response strategies • Identify resources at risk in impacted and potential impacted areas • Track pollutant movement and develop trajectories/plume modeling • Conduct visual assessments (e.g., over-flights) • Develop/implement appropriate protection tactics

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Objectives	Strategies
5. Contain and Recover Spilled Material	• Deploy containment boom at appropriate spill source and collection areas
6. Recover and Rehabilitate Injured Wildlife	• Conduct injured wildlife search and rescue operations
7. Remove Oil from Impacted Areas	• Conduct clean-up efforts
8. Minimize Economic Impacts	• Consider tourism, vessel movements, and local economic impacts throughout response • Protect public and private assets, as resources permit • Establish damage claims process
9. Keep Stakeholders Informed of Response Activities	• Provide forum to obtain stakeholder input and concerns • Provide stakeholders with details of response actions, concerns and issues, and address as practical • Provide elected officials details of response actions
10. Keep the Public Informed of Response Activities	• Provide timely safety announcements • Establish a Joint Information Center (“JIC”) (if applicable) • Conduct regular news briefings • Manage news media access to spill response activities • Conduct public meetings, as appropriate
11. Minimize Business Interruption	• Identify business interruption and potential business interruption issues • Conduct notifications of joint venture partners • Assist with internal/external investigations.

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2.0.2 Documentation

Records will be made and kept as events occur that capture the following information:

- Notification
- Response Actions
- Communications with Non-Company Personnel
- List of All Persons On-Scene
- Costs Incurred

The IC is responsible for the maintenance of complete and accurate records of all events that occur during any response activity in chronological order as it is essential for legal requirements, and post-incident review.

When an emergency has been declared, the Law Department should be notified early on to provide direction on the inclusion of the Enterprise Records Management department. The Enterprise Records Management Department will advise of specific requests for document retention, including managing and classifying incident emails per Email Management Policy.

Each group within the response organization is responsible for compiling and maintaining adequate records. If the ICS has not been fully activated, the IC must maintain and keep an accurate, chronological record of the key events related to the release.

Standards for response documentation are illustrated below:

Standards for Management of Records	
✓	Response documentation is a record of activities and not a place for analysis, conclusions, speculation, opinions, or comments
✓	Records will be complete to capture the whole sequence of events
✓	Records will be clearly stated to support the recovery costs at a later date
✓	Only relevant information will be recorded
✓	Records will include the name and position of the person who prepared the document
✓	Records will be managed and available throughout the response
✓	A scribe will be appointed to document
✓	All entries will include a time and date to reconstruct sequences of events at a later date.

Essential Emergency Response Documentation

- **Level 1 Emergency** – ICS 201 packet (verbal or written depending on the nature of the emergency)
- **Level 2 Emergency** – ICS 201 packet, followed by an IAP for multiple operational periods
- **Level 3 Emergency** – Detailed IAP created for each operational period.

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If software is utilized in any emergency response (including drills and exercises) to develop an Incident Action Plan, all documents will be stored on the system and printed for retention at the regional office as per the Record Retention Policy.

Unit/Individual Logs from each ICS group will be maintained from the time of emergency confirmation until the operations are completed and will be handed in to the documentation unit at the end of every operational period.

Incident Records

Electronic Documentation

When an emergency has been declared, the Law Department should be notified early on to provide direction on the inclusion of the Enterprise Records Management Department. All emails will be stored in an email folder created specifically for the incident. The Enterprise Records Management Department will advise of specific requests for document retention.

Visual Records

Photographs

Photographs will be used to record the following information:

- Initial conditions at the release site
- Containment and response activities (chronological progression)
- Aerial photographs (if possible)
- Overall “panoramic” view of the site to tie-in permanent features
- Conditions at the end of the response operations
- Recovery of the area over time

The following information will be written on each photograph immediately after development:

- Release name and location;
- Date and time;
- Photographer’s name and contact number;
- Location where the photograph was taken and direction the camera was facing (use copy of site sketch where possible), and
- Specific information being documented.

Video

Use video with a verbal commentary to supplement (not replace) photographs if appropriate. Verbal comments are only used to reference information pertaining to the release site and associated activities.

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For specific policies, standards and guidance on managing records at Enbridge, please see the Enterprise Records and Information Management Elink page under "Policies and Resources, Records Management.

2.0.3 Personal Protective Equipment

Appropriate personal protective equipment ("PPE") will be worn/used during response activities, meaning appropriate to the hazard and to the activities the responder will be undertaking. Responders will be trained and experienced in the use, care and maintenance of PPE and are responsible for personal items.

At minimum, these measures may include:

Personal Protective Equipment	
The Safety Officer and/or Site Supervisor will determine the PPE requirement based on the work to be conducted, a documented hazard assessment, and other factors as listed below.	
Respiratory:	Wear a positive pressure air supplied respirator in situations where there may be potential for airborne exposure above exposure limits as identified by air sampling. If exposure concentration is unknown, or if conditions immediately dangerous to life or health (IDLH) exist, a National Institute of Occupational Safety and Health (NIOSH) approved self-containing breathing apparatus (SCBA) or equivalent shall be operated in a pressure demand or other positive pressure mode.
Head:	Approved hard hats shall be worn unless all overhead hazards have been eliminated.
Gloves:	Gloves shall be used based on emergency conditions and shall be sufficient for work being performed.
Eye/Face:	Approved safety or prescription safety glasses with fitted side shields and protective lenses shall be worn to safeguard against potential eye contact, irritation or injury. Depending on conditions of use, a face shield may also be necessary.
Foot:	Safety boots with a minimum of 6" (15 cm) ankle support to the top of the boot from the heel is required, unless on a controlled or supervised site/facility tour or when not exposed to hazards that would require foot protection.
Hearing:	Hearing protection shall be worn where exposed to noise at 85 dBA or above.
Clothing:	Full length pants and long sleeves shall be worn on any facililty or work site. Approved High Visibility Safety Apparel (HVSA) shall be worn when required by hazard assessment, in areas of heavy congestion or when working near traffic areas. Flame Resistant (FR) garments are required inside fenced or operating facilities, where there is a potential for flame exposure or as based on a hazard assessment. Imperveous clothing should be worn as needed.
Other Protective Equipment:	A source of clean water should be available in the work area for flushing eyes and skin.

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Personal Protective Equipment	
The Safety Officer and/or Site Supervisor will determine the PPE requirement based on the work to be conducted, a documented hazard assessment, and other factors as listed below.	
	Suggestions for the use of specific protective materials are based on readily available published data. Users should check with the Safety Officer and follow Company safety policies.

** Other PPE maybe required based on hazard assessment*

• PPE Use and Limitations	
Several factors must be considered when selecting and using PPE	
✓	The protective clothing, gloves and boots must be resistant to permeation or penetration by oil and other chemicals that may be encountered on the site
✓	Protective clothing and gloves should be durable for heavy work
✓	Protective clothing and glove materials must maintain protection and flexibility in hot or cold weather conditions
✓	Protective clothing must be large enough to fit over other clothing without ripping and tearing
✓	For respirator use, procedures must be in place for the proper selection, use, care, and fit testing of the respirators. Additionally, the wearer must be advised as to respirator cartridge expected life and of monitoring for contaminant breakthrough, etc.
✓	Protective footwear must have non-slip soles. Additionally, conditions may require the use of steel toe and/or steel shank footwear
• Work Duration	
The work duration is expected to last for the full shift and will involve moderate to heavy physical exertion during clean-up activities.	
• PPE Maintenance and Storage	
PPE will be maintained and stored by an assigned work crew. Protective clothing and gloves will be evaluated during and at the end of each shift and will be replaced as necessary. Boots and other PPE may be decontaminated for re-use.	
• PPE Decontamination and Disposal	
PPE may be decontaminated in designated areas by assigned crews using soap or another suitable cleanser and rinse water. The cleaning solution used will be disposed of in properly labeled containers according to applicable regulations. Contaminated protective gloves and any other PPE to be disposed of will be placed in properly labeled bags and disposed of according to applicable regulations.	

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• PPE Training and Proper Fitting	
All site clean-up workers, supervisors/managers and others entering the contaminated zone will be given training in proper use of PPE. The training will include:	
✓	How to use PPE
✓	When and where to use the PPE
✓	How to inspect PPE to determine if it is working properly
Care will be taken to ensure workers are provided properly fitted PPE.	
• PPE Donning and Doffing Procedures	
Prior to starting work, all site clean-up workers and others required to wear PPE will be trained in proper donning and doffing procedures.	

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2.1 Discovery/Detection

2.1.1 Observation, Discovery & Detection

The detection of a discharge from the Company pipeline system may occur in a number of ways, including: Discharge detection by Company personnel, pipeline patrols, or the general public. Discharge detection by the SCADA system and or controller at the Control Centre which monitors flow and pressure on most lines as well as tank oil levels

2.1.1.1 Pressure Alarm

In the event of a change in pressure beyond a specified range, the operator will be signaled by an alarm which may result in the operator shutting down the associated pipeline or process equipment.

Control Center Alarm Procedures	
✓	Ensure that the pipeline/terminal is in a safe state
✓	Notify supervisor/manager of any abnormal operation
✓	Once a shutdown decision has been made personnel will be dispatched to assess situation
✓	The supervisor/manager may request a field inspection of the pipeline ROW in question to identify the source of the suspected leak
✓	In the event a release is discovered along the pipeline, this Plan will be activated
✓	In the event a release is not found, an investigation into the cause of the pressure change will continue until determined.

If a release is detected, personnel are directed to notify the proper authorities (see *Annex 2- Notification Procedures*).

Facility Discharge Detection (Tanks, Terminals and Piping)

Enbridge facilities are equipped with high level alarms including mechanical switches.. The Control Center also receives an alarm if this "high level" is reached. When the Company receives these alarms, the alarming tank is shut down, and immediate contact with the facility operator on duty or on-call personnel is established. The high level alarm is set below the tank overfill height to ensure adequate time to shut down the line before overfilling occurs.

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2.1.1.2 Discharge Mitigation

This section provides guidelines for controlling a release near the source and mitigating the associated consequences. Source control and mitigation involve anything from shutdown of operations to containing a spill, dispersing a vapor cloud, protecting a sensitive area, recovering the spilled material, or other such activities that are involved in an emergency response.

Company personnel have been trained to respond to abnormal pipeline/facility operations. Source control will be maintained with the following systems and procedures:

- Company facilities are equipped with Automated Emergency Support Systems (e.g., sumps, safety control valves, emergency shutdowns, etc.). These systems can alarm Control Centre operators and close individual valves or the entire pipeline/facility.
- In the event the incident does not allow automatic control, the operator has the ability to control a release by manually activating shutdown devices or closing valves, etc.
- In the event the source cannot be controlled by the pipeline operator or remotely with a safety system, the Company will activate this Plan and assemble a team to respond to the situation.

Initial Actions For a Pipeline Incident:	
✓	Shutting down the pipeline
✓	Isolating the line section by closing the appropriate valves
✓	Dispatch first responder to assess

Initial Actions For a Tank Leak/Overfill:	
✓	Terminating operations to the tank, if in progress
✓	Transferring the tank contents into available tankage or back into the pipeline
✓	Dispatch first responder to assess

Source control measures are implemented as close as possible to the source of a spill to minimize the extent of the affected area and generally involve:	
✓	Construction of barriers, trenches, or earthen berms for containment
✓	Construction of berms or trenches for diverting spill to containment area
✓	Deployment of containment booms in waterways down- current of the source
✓	Deployment of recovery equipment (pumps, vacuum trucks, skimmers)

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Leak Detection System

The Company monitors the pipelines for possible leaks using multiple methods, each with a different focus and each using a different technology, resource and timing. Together, these methods provide overlapping and layered leak detection capabilities:

Controller (Operator) monitoring – The Supervisory Control and Data Acquisition (SCADA) system is designed to identify operational changes, such as pressure drops that may indicate a leak. This SCADA system also monitors vapor concentrations, pump-seal failures, equipment vibration levels, and sump levels.

Computational pipeline monitoring – The Company is constantly monitoring pressure, temperature and other key data from thousands of points along the systems to quickly identify and respond to unexpected changes. Computer based systems use measurement and pipeline data to detect anomalies that could indicate possible leaks.

Scheduled Line Balance Calculations – Regularly scheduled intervals, throughout the day, calculate and confirm the volumes of crude oil received into the pipeline system to precisely match the volumes delivered.

Visual surveillance – Regular aerial and ground line patrols are conducted on the pipeline systems. Emergency telephone hot lines are operated for the use of third party reports.

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2.2 Notification and Communication

General guidelines on the procedures and sequence for making the various internal and external notifications following any type of product release or other emergency incident can be found in this Plan in *Annex 2*. The information provided herein focuses primarily on general notifications and reporting. Relevant internal and external notifications will be found in the geographic specific Geographical Annex of the ICP along with all notification checklists applicable to that area.

The purpose of the notification process is to:

- Protect the safety of the public and responders;
- Control potential environmental effects as effectively and quickly as possible; and
- Meet regulatory requirements.

The notification process is triggered by an emergency or suspected emergency that is detected by, or reported to, the Control Center by the public, contractors, external first responders or an employee.

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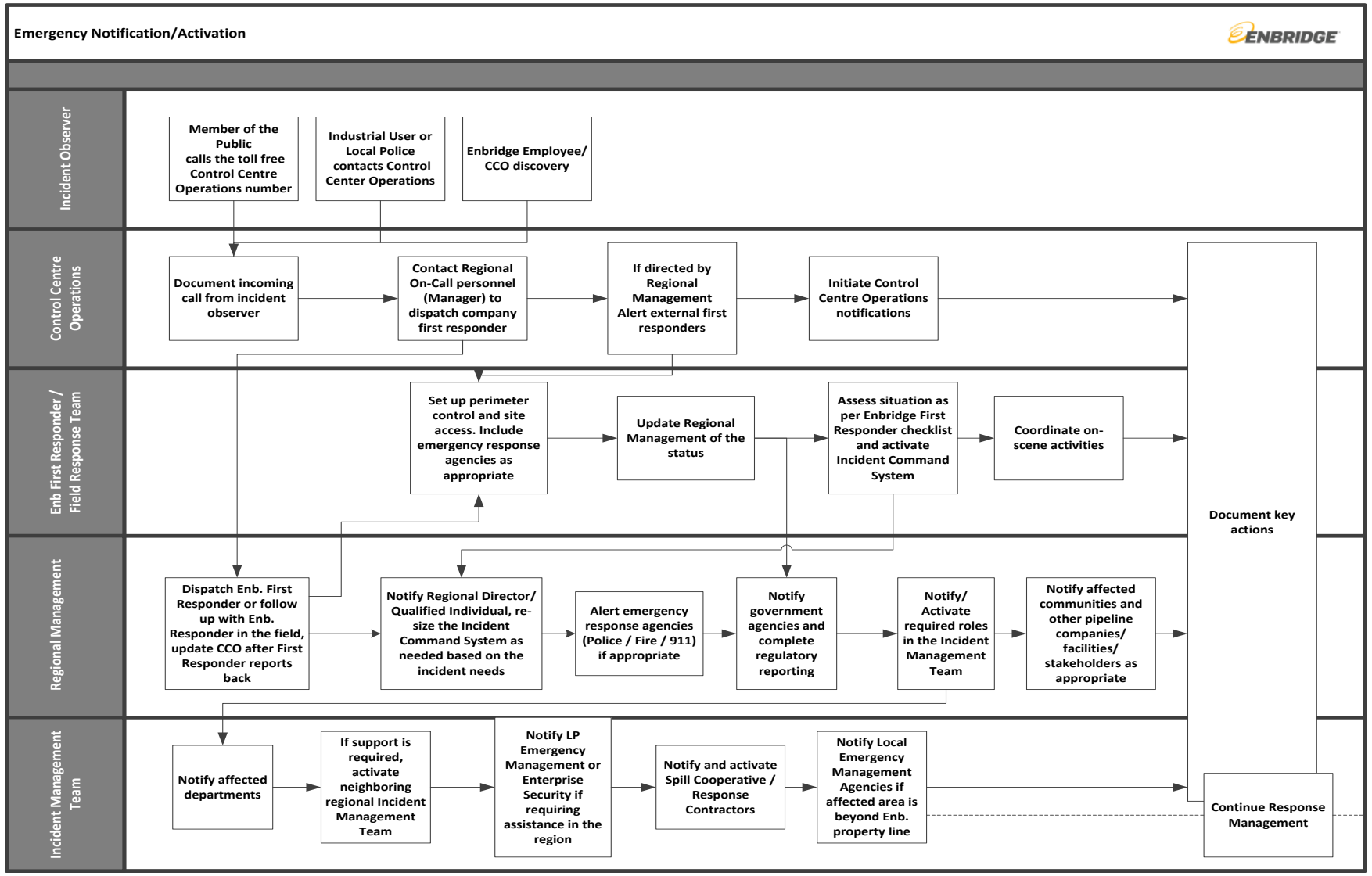

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2.2.1 Field Notifications

Any person who observes or becomes aware of a release, shall immediately report the incident to the Control Center and Regional Management. Information should be documented on the Receiving Emergency Information form, located in *Section 4 - Forms*.

Enbridge First Responder

The Enbridge First Responder on-scene will:

- Contact Regional Manager on call – see Regional Manager On Call Schedule
- Contact Control Center
- Follow Annex 2-Notification Procedures to activate the Regional IMT
- Work with the first responding agency on scene to ensure a coordinated response

Regional Management/Representative

As the scope of the incident requires, Regional Management will:

- Dispatch Enbridge First Responder(s) to investigate the report
- Notify the Control Center if an Enbridge Responder has been dispatched
- Depending on the circumstances of the emergency, consider launching aircraft for situational awareness
- Activate Incident Management Team as required
- See Annex 2 - Notification Procedures for required regulatory Notifications
- Call response agencies/oil spill removal agencies (Annex 2)

In the Northern Region, the Regional Management will contact stakeholders and authorities.

2.2.2 Control Center

Any abnormal operating condition detected by the Control Center, or any reported or observed emergency or possible emergency situation, will be given an emergency status until the report is confirmed or negated. Follow up investigation and confirmation of a spill, or threat of spill, will be done immediately.

The Control Center personnel will notify:

- Regional on-call representative
- Others identified in the Control Center operations procedures
- The Municipal/Community emergency services will be notified at the request of Regional Management)

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The Control Center and IMT will confirm that additional notifications are completed, including those to:

- Government agencies
- Local authorities
- Response contractors
- Indigenous groups in Canada in/or in the U.S.
- Stakeholders

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Figure 1

ALERT LEVEL	LEVEL 1 EMERGENCY	LEVEL 2 EMERGENCY	LEVEL 3 EMERGENCY
- Minimal area impacted - Immediate control at hand - Restricted to site - Low probability of escalation - No immediate impact to operations *May complete 3rd party notification	- No immediate threat to people - No threat to facility infrastructure, no effects outside company property, very limited effects on pipeline ROW - Control of released product pending - Minimal environmental impacts (including wildlife, ecosystems) - Minimal impact to operations - Can respond with existing resources - Minimal impact on company property and no impact on public property	- Potential exists for injury/ threat to people - Offsite impact possible - Potential threat to company facility infrastructure, no immediate threat outside company property, moderate effect on pipeline ROW - Moderate environmental impacts - Limited or short-term impact to operations - External resources may be required	- Fatality/ serious injury or illness and/or ongoing threat to public safety - Ongoing threat to facility infrastructure - High environmental impact - Potential for long-term or significant impact to operations (or no indication of how long impact may last) - External resources required
ALERT RESPONSE	**TIER 1 RESPONSE**	**TIER 2 RESPONSE**	**TIER 3 RESPONSE**
- Handled through normal operating procedures under the direction of the supervisor or senior worker on site	- Response control at hand and can quickly move to Tier 2 as situation warrants - ICS is activated, IMT staffed as required - ICS 201 packet completed - Local resources/ contractors and response organizations may be required - Response activities under direction of Incident Commander	- Actions taken to ensure public safety - Support personnel/equipment from neighboring region activated and awaiting notice of deployment as needed - Broader range of response activities - CMT notified if emergency warrants - ICS activated, IMT to manage reactive and proactive phases -IAP required for multiple operational periods -Incident Support Team activated to support if required -Local resources/ contractors and response organizations required and sourced	- Actions taken to ensure public safety - Support personnel/equipment from neighboring region deployed - CMT notified - Full IMT team activation - Detailed IAP created for each operational period - Incident Support Team and E3RT activated to support longer term incidents if required - Immediate multi-agency involvement required, UC established - Local resources/contractors and response organizations required and sourced

Note:

1) **Regulatory classification levels may not align with Enbridge Classifications**
2) **In Eastern Region, 3rd party notifications will be reported for alert level incidents**

Not all criteria is required to determine a specific level. However, there may be instances where an aspect of the emergency is so significant, that it would affect the level to be increased. The Incident Commander or designate is responsible for determining the level of the emergency.

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2.2.4 Third-Party Notifications - Jurisdiction having Authority

The IC is responsible for assuring that all required notifications/reports are completed in a timely manner for all incidents. All contact with external agencies must be properly documented. The Control Center is a 24/7 support tool designed to provide communication assistance to the IC to facilitate a timely response to emergency situations. Upon completion of the initial notifications and the implementation of the initial response actions, periodic follow-up notifications should be made to the applicable agencies.

For reporting guidelines for all agency contact information, refer to *Annex 2.*

2.2.5 External Communications

All Public statements and notification must be pre-approved by the Public Information Officer (PIO) if appointed, and approved by the Incident Commander (IC).

Regional Management (or designate) should notify On-call PIO of any of any emergency situation where external public communication may be required. The PIO may be activated at any time by the Incident Commander in any operational incident or emergency.

Refer all media and general public inquiries to the PIO.

The Liaison Officer (LNO) also works with the PIO to develop messaging. The LNO is responsible to communicate with specific stakeholder groups as determined by the size, scale and complexity of the incident. This may include but is not limited to:

- Indigenous groups
- Community Leaders
- Government Representatives (elected and public service, various jurisdictions)
- Regulators
- Landowners

External Communications should:

1. **Focus on Priorities**

   The company's priority in an emergency is to protect the public and responders, limit environmental impact and resolve the problem calmly, professionally and safely while ensuring stakeholders are kept informed.

2. **Coordinate with Local Resources**

   Local fire, police and emergency medical service (EMS) officials will be requested to communicate the emergency situation to those in proximity to the incident. The LNO role (which may be filled by groups such as Community Relations, Stakeholder Relations and Indigenous Relations representatives or Land Agents for the area) will also contact/follow up with local landowners, municipal representatives, government, regulators, Indigenous groups and other stakeholders.

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Initial Response Phase - Enbridge First Responders

Enbridge First Responders should use the following to respond to the Media until a Public Information officer is available:

- Provide media members with the toll free media line (1-888-992-0997 in Canada and 1-877-496-8142 in the US)
- Communicate with the public and media in a calm, professional and respectful manner, showing concern for their safety.
- State that you are not an official spokesperson for the company but a representative will respond to their inquiry as quickly as possible.

Crisis Communications

This section serves as a general guide for the Incident Management Team in making critical decisions related to public information management. This applies to response personnel communicating with the public, stakeholders and the media regarding real or potential emergencies. The objective is to establish Enbridge as an early, credible source of information, reduce speculation and inaccuracies in reporting and to ensure consistent messaging and information flow regardless of channel or audience.

Methods stated here are as-needed and may not apply in every emergency.

In a larger incident, additional support outside of the Incident Management Team may be required. The Crisis Communications and Response Team supports the Incident Management Team and may be activated for two purposes:

- To support Enbridge's communications response during an operational upset through the Public Information Officer, and
- To engage in strategic internal and external communications and reputation management for operational and non-operational crises (e.g. financial stories, negative media, etc.).

The Crisis Communications and Response Team is aligned with the Incident Command System, and enables a communications structure that supports Enbridge's emergency response teams. This team reports to the Incident Management Team PIO and/or LNO based on the nature of the incident.

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Crisis Communication Activities	
	External communications must be reviewed and approved by the Legal Officer (or Law department) prior to being communicated as there may be legal implications for the Company.
	The PIO, with authorization from the IC:
	Gathers information to develop a communications plan and messaging
	If appropriate, releases a statement to media
	If appropriate, activates web specialists to post a statement on the company website
	Works with LNO to develop messaging for communication with stakeholders
	If appropriate, issues emergency bulletins containing key information for internal and external communications
	The PIO issues status updates through modes listed above
	The IC, PIO and LNO coordinate internally, and then reach out to local emergency service officials and local/regional emergency management agencies regarding status updates.
	As safe access permits, LNO team and/or Land Right-of-Way Agents, in cooperation with local public safety officials, go door-to-door to notify landowners of the possible impact on their property and establish how future communication will be handled for updates.
	If necessary, a community center is established (led by PIO) to address questions/comments/concerns of residents in the area.
	The PIO will document all public inquiries regarding the incident allowing the Company the ensure responses are made in a timely manner.
	Lands and Right-of-Way personnel gather emergency contact information from the database of all property owners, residents and tenants along the pipeline system.
	Lands and Right-of-Way Agents obtain emergency contact information including:
	area map indicating location of pipeline and location of residences or workplaces
	names
	addresses, including GPS coordinates
	phone numbers (home and mobile)
	email addresses
	mobile text message capability
	In the event of potential impact to public health due to extended exposure to air or waterborne substance, generally a notice is distributed by the local public health department, followed by a news release to media and notification to residents.

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Alternate Means of Communication	
	If appropriate, under the responsibility of the PIO (upon approval from the IC), an incident call center/hotline incident-specific website and community center may be established where individuals can contact the company regarding the status and support being provided to the community by the company.
	In the event of an extended evacuation, the company provides daily updates to explain what is being done to return evacuees to their homes and to discuss and accommodate their needs. This messaging is coordinated with the applicable Local Authority(s).
	If appropriate, an incident-specific website will be activated to manage external communication related to an emergency.
Public Evacuation / Shelter-in-Place	
	If an evacuation or shelter-in-place order is necessary, the PIO and LNO will support public safety officials and may assist with coordination under the direction of that authority. E.g. Lands & Right-of-Way agents could assist by notifying the public and adjoining facilities.
	If a public warning system or Emergency Alert System (EAS) is present and accessible, it may be used by local authorities to communicate emergency information and actions to the public. PIO and LNO should support Local Authorities by ensuring they have the right information and necessary details to define clear public emergency actions.
	The LNO works with local public safety officials and local public emergency organizations (i.e., Red Cross) to establish and furnish shelters to house and feed evacuees.
	The PIO, via Senior Communications Officer, notifies Executive Leadership (Incident Support Team and if activated the Crisis Management Team) of any evacuation or shelter-in-place messaging

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2.3 Initial Response

Initial command actions are those taken by local personnel immediately upon becoming aware of a release or emergency incident, before the Company Response Teams (Field Response Team "FRT" and Incident Management Team "IMT") are formed and functioning. Timely implementation of these initial steps is of the utmost importance because they can greatly affect the overall response operation.

Immediate actions are required at the onset of an emergency response to mitigate the extent of a release, minimize the potential hazard to human health and the environment, as well as implement an effective response. It is also important to act decisively and in doing so, create a professional working atmosphere among the Company and regulatory authority personnel and public officials. This section is intended to provide guidance for determining the appropriate initial response and notification actions that should be carried out in the event of a release or other emergency incident.

It is the IC's responsibility to first make the appropriate notifications to the Control Center and Regional Management, and to initiate response operations until a transfer of command occurs and the IMT has been activated.

2.3.1 Initial Response Procedures

A person evaluating a situation must assess the circumstances surrounding an event, to determine if an emergency situation exists, and respond accordingly. Company personnel are trained in hazards or emergency recognition procedures as described below.

An emergency in pipeline and facility operations often originates with the unexpected release of product. Uncontained commodities and high vapor concentrations present substantial hazards for fires or explosions until they dissipate to safe levels. In these situations, sources of ignition must be controlled to eliminate fire and explosion hazards. The Company has strict rules for controlling sources of ignition within its properties to avoid such explosions or fires. Potential sources of ignition become more difficult to control on public property. Early detection and quick response are the best actions to reduce the hazards.

The purpose of this section is to identify the response checklist/procedures (which follow below) based on the type of incident that could occur at a Facility and related pipeline systems. The checklists below are developed to allow the field personnel the ability to make sound decisions during the initial response to an incident. The checklists are not meant to substitute for emergency response knowledge, training, or sound judgment calls and do not account for all circumstances. In the event of any type of incident, it is imperative that the safety of **all** personnel be considered **first** and the protection of the environment second.

The level of required response is dependent upon the severity of the release, the size, potential environmental, social and economic impact and the expected public interest in the event. Company personnel and provision contractors will be familiar with the tiered response model and how emergencies are classified. Any employee/contractor who first observes an emergency will immediately report the details to the Control Center.

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The Control Center employee that receives notice of a potential emergency will immediately call Regional Management to dispatch the Enbridge Responder on-call.

For planning purposes, potential emergencies will be classified by emergency levels. The classification levels are necessary for determining an appropriate tiered response. Escalating levels result in increased required resources, notification requirements and potential increased response complexity to deal with the emergency.

See the *Emergency Classification and Tiered Response Table* located in *Section 2.2*, which defines emergency response levels and the appropriate tiered response to support emergency operations.

Immediate actions will be taken at the onset or discovery of an incident to mitigate the effects and carry out an effective response. **Under no circumstances** will personnel place themselves in harm's way or be directed to do so by others when performing response activities.

Such actions include, but are not limited to:

- For a natural gas release, contacting local law enforcement for possible reverse 911 (or local emergency responder) public notifications or activation of public alarm systems (e.g. Emergency Broadcast System, Public Awareness Announcements, etc.) ensuring the health and safety of the public; evacuation to safe areas as necessary and restricting access to the area;
- Securing the site using best methods available;
- If necessary, contacting local emergency response agencies (police, fire and EMS) for assistance;
- Taking measures to reduce or control the impact of the emergency (e.g., block culverts/sewers, dam ditches, shut down ignition sources), maintaining the safety of personnel involved in these activities;
- Coordinating with response personnel arriving at the site; and
- Documenting key events using best methods available. All documents and logs drafted during an initial response will be submitted to the Documentation Unit for permanent retention.

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2.3.1.1 Initial Response

Purpose: To be used when exploring a suspected or reported emergency. Safe work practices will be followed per the following guidelines (the order of these actions will depend on the situation).	
EXPLORE- To be reviewed by the First Responder prior to taking any immediate action.	
☐	Notify Senior staff on-site immediately if a pressure drop has been observed or a leak is suspected and stop all product transfers. Close all automatic isolation valves, if available.
☐	Conduct a field level hazard assessment to identify and mitigate all hazards including potential for fire, explosion, and hazardous toxic vapors. • Determine the wind direction and approach cautiously from upwind. • Explore the suspected release area only when wearing appropriate PPE using the buddy system if possible. • Ensure safety of personnel in the area. • Eliminate or shut off all potential ignition sources in the immediate area. • Use intrinsically safe equipment (e.g., flashlights, two-way radios, gas detectors with audible alarms)
☐	If appropriate, request surveillance fly-over to determine: • If there is any abnormal activity and dead vegetation in the vicinity of a pipeline • Size and description of oil slick • Direction of movement • Coordinates of leading and trailing edge of oil slick • Sensitivities endangered • Areas of population that are threatened If radio contact cannot be made; the line flyer will land report to Company management by telephone
☐	Maintain regular/scheduled communication with the Control Centre and Regional Management/on-call person.
APPROACH	
☐	If hazards cannot be safely mitigated, move to a safe upwind location, monitor the incident, and keep people out the hot zone.
☐	Are people injured or trapped? Are there outside people involved in rescue or evacuation?
☐	Are there immediate signs of potential hazards such as: • Electrical lines down or overhead? • Unidentified liquid or solid products visible? • Vapors visible? • Smells or breathing hazards evident? • Fires, sparks or ignition sources visible? • Holes, caverns, deep ditches, fast water or cliffs nearby? • Is local traffic a potential problem? • Ground conditions (select one) ☐ Dry ☐ Wet ☐ Icy
CONFIRM & CONTROL	
☐	Begin a 214A Individual log when notified of an incident and continue documenting key actions throughout the response.
☐	Determine level of response needed, hazards of product(s) involved and proper response guidelines to be followed. Confirm identification of spilled material and check the SDS sheets. Consider the following: • Assess the spill threat, site safety, and parameters such as spill volume, extent and direction of movement. • Has pipeline(s) been shut down? • Has wind direction been confirmed and windsock erected? • Has the public been protected or evacuation considered if necessary? • Have all ignition sources been identified and eliminated? • Have personal protection and safety requirements been established and communicated? • Is adequate fire protection equipment available and in place? • Are tank and VAC-truck electrical equipment properly grounded? • Have decontamination sites and procedures been established? • Are activities and events being logged/ documented? • Eliminate sources of vapor cloud ignition, consider the ignition of NGL. Shut down all engines and motors. • Establish Exclusion zone and Safe Work Areas (Hot, Warm, and Cold).

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CONFIRM & CONTROL (Con't)	
☐	If on water, consult Control Point and HCA maps for appropriate response strategies for incoming resources. • Review pipeline alignment sheets to become familiar with the location of mainline valves and elevation characteristics. • Review ESA maps for the location of any sensitive area that may be impacted (Annex 3).
☐	Once support has arrived conduct transfer of command and start preparing for tactical and planning meetings.
COMMUNICATION/NOTIFICATIONS	
☐	Initiate actions to notify government agencies including local authorities of area affected or at risk areas via the Control Centre, Regional Management or designate. • Complete notifications for emergency call-out, including regulatory agencies. This will be done by Regional Management or designate. • If excavating, has One-Call agency been notified? • Ensure notifications have been captured • Has a radio channel been established for communication between the site and other personnel in field? • Notify External Emergency Services as appropriate. Work with local law enforcement to make sure all personnel/citizens are a safe distance away from the hazard area. • Notify the appropriate Company management. • Advise neighboring property owners and operators of any threat to their property or personnel. • Notify appropriate federal, state and local government agencies, including local utilities.
INCIDENT COMMAND	
☐	Once it has been determined to activate the ICS, the IC will initiate the following actions: • Confirm that containment equipment and oil spill contractors have been deployed. • Integrate local evacuation plans into the Unified Command decision-making process. Work with response team once they arrive on site to establish a workable Incident Command Post and Communications Center. • Direct initial response actions. • Begin development of an initial incident action plan (ICS 201 Forms).
EMERGENCY SHUT DOWN PROCEDURES	
☐	The following emergency shutdown procedures should be initiated if company personnel are threatened by the release of product from a pipeline to the environment or when coordinating activities for prompt and safe repair of the pipeline and the return to normal operating conditions: • Shutting in the line at the nearest block valves. • Notifying the nearest pump station and/or the appropriate Control Center. • Maintenance crewmembers should notify their immediate supervisor who will in turn notify appropriate Company contacts. • If the exact location of the leak is unknown, the immediate supervisor will request a line flyer, or if it is at night, manpower might be used to walk the line. Once a leak site has been located, the following information should be obtained: • Have all ignition sources been eliminated? • Are any water intakes at risk? • Are any schools, homes or commercial properties at risk and should they be evacuated? • Should access to the area be restricted (roads blocked)? If so, assistance should be requested from law enforcement agencies. • Have local response agencies been advised of the product's characteristics and handling precautions which are described in the SDSs? • Are railroads or utility companies in the area and have they been notified? • Will product flow into any waterways or roadways? • In the U.S. work with Company Environmental Department to conduct a Natural Resource Damage Assessment. The Control Center should be notified following an assessment of the release site; an evaluation should be made regarding the effect of downtime on product scheduling. Appropriate report, logs & notifications will be made.

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2.3.2 Isolation Distance (Hot, Warm, Cold)

Establish initial control perimeters based on the following guidelines (see *Figure 1*):

- Hot Zone
- Warm Zone– could initially be considered containment area
- Cold Zone

The following table depicts safe distancing as recommended by the latest edition of the Emergency Response Guidebook (ERG) by the Department of Transportation and Transport Canada. Reference to the latest edition of the ERG is further recommended to confirm safe distancing relative to the site specific conditions.

Set up a Command Post, Staging Areas, and Decontamination Stations as necessary for the circumstances.

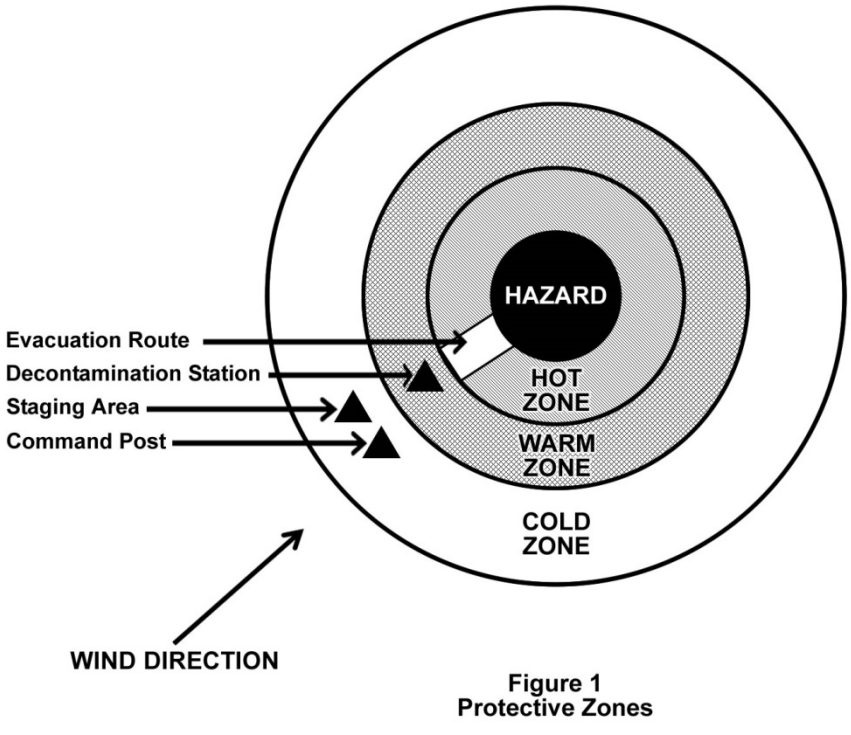

Figure 1
Protective Zones

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Isolation Distance / Emergency Response Guidebook * ** ***

Product	Guide #	ID #	Immediate Precautionary Evacuation Measure	Large Spill Evacuation	Evacuation in the Event of a Fire
Condensate(Diluent), Natural Gas, Butane, Ethane, Methane, Propane	115	1971, 1011, 1075, 1035, 1078	100 meters (330 feet)	800 meters (½ mile)	1,600 meters (1 mile)
Napthalene Crude	133	1334	25 meters (75 feet)	100 meters (330 feet)	800 meters (½ mile)
Petroleum Crude Oil, Petroleum products, Pentane, Hexane, Heptane, Octane, Nonane, Decane	128	1270, 1267, 1265,1268, 1208, 1206, 1262, 1920, 2247	50 meters (150 feet)	300 meters (1,000 feet)	800 meters (½ mile)
Petroleum sour crude oil, flammable, toxic	131	3494	60 meters (200 feet)	800 meters (½ mile)	800 meters (½ mile)
Benzene, Toulene, Xylene	130	1114, 1294, 1307	50 meters (150 feet)	300 meters (1,000 feet)	800 meters (½ mile)
Hydrogen Sulfide Gas	117	1053	100 meters (330 feet)	300 meters (1,000 feet)	1,600 meters (1 mile)

***** Flash Fire and Vapor Cloud Explosion should be considered potential hazards in structurally condensed areas (heavy urban areas) especially under low wind, stable weather conditions. Pool Fires should be considered potential hazards in structurally condensed areas (heavy urban areas) especially if wind speed is high and ignition is delayed (product has pooled significantly). These hazards may result in a travelling flame front, damaging overpressure or exposure to thermal radiation, therefore responders should use the distances identified for “Evacuation in the Event of a Fire” even if no fire is present. In a full bore rupture where there is a risk of Flash Fire or Vapor Cloud Explosion, these distances should be doubled.

****** Additional conditions that should be considered when determining an evacuation zone include weather, full bore rupture, wind speed, overcast/clear sky and day/night

******* These substances may also present a Toxic Inhalation Hazard (TIH) and night time distances will defer from above.

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2.3.3 Setting Up On-Site Work Areas

The IC or designate will assess the accessibility of the site and will separate the site into three distinct areas to clearly identify the high risk areas and to reduce the hazards to the on-site responders. The three areas could be defined as the safe area, the hazardous area and the decontamination (or "Decon") area.

Protective Zones
To minimize spreading contamination from an emergency site to unaffected areas, the Safety Officer must record protective zones (see Figure 1) on the ICS 201-5 Site Safety and Control Form. Protective zones should identify:

- Hot Zone
- Warm Zone
- Cold Zone.

Hot Zone
The hot zone is the release site or site of clean-up operations. Any area that requires respiratory protection must be within the boundary of a designated hot zone. Access to the hot zone is restricted to trained and properly equipped emergency response personnel only. Personnel not involved in emergency operations must be prevented from entering and escorted off the site if necessary.

Warm Zone
The warm zone is a transition zone where equipment may be cleaned, and contaminated clothing removed, before leaving the site. Follow the established Decon plan. Appropriate PPE is required.

Cold Zone
The cold zone is the largest zone and includes all areas not immediately involved in the emergency. Take all possible efforts to ensure contamination does not spread to this area.
Air monitoring delineates the perimeter where air contaminants and combustible vapors cease to be detected. The cold zone must be established outside of this perimeter. Locate the Incident Command Post and staging area (pre-deployment staging area for equipment arriving on site) in the cold zone. For large incidents, ensure that the Incident Command Post is not positioned near the incident.

2.3.4 Evacuation

2.3.4.1 Personnel Evacuation

Evacuation plans will be located in the applicable facility. All evacuation directives will be communicated through an audible signal, either through voice by the Designated Individual, such as PLM supervisor, Emergency Warden, Area Supervisor, Area Manager or Area Coordinator, or by the activation of an alarm system. All facility personnel are trained routinely in evacuation and emergency response procedures. The facility contains no critical

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equipment that requires employees to continue to operate after the evacuation notification is made.

The purpose of the evacuation plan is to provide some guidance in the event shutdown and evacuation are necessary. In the event of an incident, the facility operator will stop the flow of product by normal operating procedures. The facility supervisor/manager shall be notified immediately of the emergency. All facility personnel should evacuate with the exception of any individuals designated to remain on site. The Fire Department will be notified if there is a fire. Arriving personnel, equipment and fire resources will be met at the main gate or muster point of the facility, unless deemed unsafe to do so. Tactical deployment of arriving resources will depend on the current situation.

Evacuating personnel shall proceed in an orderly manner. The Supervisor/Manager or Designated Individual will account for all employees and arrange for medical assistance as required. When the alarm is sounded or a signal to evacuate is given all personnel should:

Evacuation Checklist	
✓	Immediately stop work activities.
✓	Check the wind direction
✓	Move upwind or cross wind
✓	Check the wind again
✓	Conduct a head count to account for all personnel known to be at the facility
✓	Assist in alerting and escorting personnel, including visitors and contractors to the appropriate muster point
✓	Notify the Control Center
✓	Assist in hazard control activities as requested
✓	Assist in search and rescue of missing persons
✓	Injured personnel will be transported to the nearest emergency medical facility. All other personnel will remain at the evacuation point until the "All Clear" signal is given.
Note: Evacuation should be carried out in an orderly manner. Personnel should walk, NOT run or panic.	

Personnel evacuation direction is further defined as follows:

- **Facility Employees** - All Company employees who are not directly involved with the abatement of the emergency will immediately evacuate the area of the emergency. They will proceed via an unthreatened route to the facility main gate and remain in a "stand by" mode until instructed by the Facility Management to do otherwise. Should access to the facility main gate be threatened by the emergency, proceed to a location on the facility unthreatened by the emergency and notify the Emergency Warden and/or Area Supervisor/Manager and/or Designated Individual of your whereabouts as soon as practical.

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- **Contractors, Freight Haulers, Vendors and Other Visitors** - All non-Company personnel will immediately evacuate the area when notified of an emergency. All material loading or unloading will cease. Non-Company personnel will exit immediately upon approval of the Facility Management. Should access to the facility main gate be threatened by the emergency, proceed to a location on the facility unthreatened by the emergency and notify the Emergency Warden and/or Area Supervisor/Manager and/or Designated Individual of your whereabouts as soon as practical. After personnel evacuation is initiated, emergency response agencies and teams will be notified (either from on-site or off-site immediately after the evacuation was completed), and immediate response actions will be initiated to minimize threats to human health and the environment.

2.3.4.2 Community Evacuation

Evacuation of the public should only proceed when it is safe to do so and ONLY in cooperation and coordination with Local Emergency Services. As identified under community emergency response plans, the responsibility and decision to evacuate is a community responsibility. The Company will support the evacuation and cover the cost of the response.

It is important to remember that evacuations beyond Company property will have to be initiated and coordinated with local emergency response/management organizations which have the legislative authority to order the movement of persons. State, Provincial, Territorial, Indigenous and local authorities have primary responsibility and authority for evacuation planning and for the transportation, sheltering, public safety, and security of persons and non-Federal property within their respective jurisdictions. The unique challenges that might confront State, Provincial, Territorial, Indigenous and local governments during a mass evacuation could require them to request additional assistance, of either a logistical or operational nature, from within their province, from other provinces pursuant to mutual aid and assistance compacts, or from the Federal government.

The Company:

- Should ensure that local emergency response/management organizations are provided with a clear recommendation to evacuate the public should the Company become aware of an immediate threat to life and safety that may not be under action by first responders.
- Will serve only in an advisory capacity during an evacuation order and may assist with the logistics of an evacuation.
- Must provide as much product information as possible to any emergency management organization coordinating an evacuation. The latest version of the Emergency Response Guidebook (“ERG”) should be consulted in order to determine safe evacuation distances.

The priority for all Company personnel in any emergency is protecting the public and responders.

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Prevent public access to the emergency site while there is any danger of explosion, fire, hazardous vapors or other hazardous conditions. For example:

- Seal off routes into the emergency site and establish a security perimeter
- Contact local police to set up road blocks at all access points, as applicable
- Employees/contractors, police and/or security personnel can be used, as well as physical barriers (e.g., barricades, reflective tape) to control access to hazardous areas.

Coordinate with external emergency response agencies (e.g., police, fire and EMS departments) to establish appropriate response measures for public protection as required, including:

- Monitoring for hazardous atmospheres;
- Evacuating people from the area (homes and businesses);
- Eliminating ignition sources near a release site;
- Preventing ignition sources from entering a release site; and
- Stopping traffic (e.g., on roads, rail lines, bridges), as required.

In the unlikely event that evacuation plans were required beyond the boundary of the facility, the designated individual would communicate further directives. These plans will include guidance of where to move potentially affected parties to minimize threats to human health and the environment. This will be accomplished in conjunction with local emergency response officials. The notification mechanisms will be based on monitored air quality and other situations that might arise during the emergency.

Evacuation is recommended for incidents in which the plume is visible and egress can occur in any direction away from the plume. A recommendation to evacuate should be made by a Qualified Individual/Incident Commander with access to LEL monitors and or air quality monitoring.

Under the direction of the IMT, community evacuation will be coordinated with the local authority. The recommendation to evacuate would be the decision of the IC. Refer to the ERG for product/evacuation guidance.

If the public must be evacuated before external response agencies arrive or if these agencies are not available, the IC must take all steps necessary to ensure public protection (e.g., assigning Company employees to begin a door to door evacuation), then turn over these duties to community agencies as soon as possible.

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For long-term releases, evacuation is preferred to sheltering if public safety can be assured during the evacuation process. Evacuation is a viable public protection measure in circumstances when:

- The location of the plume is known and safe egress routes can be assured.
- The release will not likely be contained in the near future.
- Visibility and road conditions are good.
- The residents clearly understand their directions.

Residents should also be evacuated during ongoing emergency flaring or burning if their health and safety could be affected by the operation.
In planning an evacuation, the following must be considered:

- The size and expected duration of the release;
- Egress routes;
- Current and expected meteorological conditions; and
- The potential for unexpected ignition.

Sheltering is the primary public protection measure for high vapor pressure products and when the hazard is of limited duration. Sheltering within a building creates an indoor buffer to protect affected individuals from higher (more toxic) concentrations that may exist outdoors. The goal is to reduce the movement of air into and out of the building until either the hazard has passed or other appropriate emergency actions can be taken (such as evacuation).

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

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

In conjunction with shelter-in-place and evacuation strategies, a natural gas release may be ignited at the source in order to reduce public exposure to the hazard. If an immediate threat to human life exists and there is not sufficient time to evacuate the hazard area the IC is authorized to ignite the release.

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2.4 Operations

2.4.1 Enbridge's Response Management System

2.4.1.1 Cross Border Response

For a larger scale incident, employees may be required to cross the border to support relieve Incident Management Team members, contact HR.mobility@enbridge.com prior to traveling across the border.

2.4.1.2 Incident Command Structure

The ICS enables a well-managed response and limits the effects of an emergency through the rapid, effective, coordinated response of resources. ICS is the standard international practice for emergency management, and clarifies the roles of personnel involved in emergency response. ICS is effective for emergency response because essential information and resources are organized into a logical structure for planning and implementing the required actions. It also provides a flexible preplanned emergency response organizational structure for any type or size of incident. The structure of the ICS required depends on the nature and complexity of the emergency, and is based on need, rather than rigid organizational structure. For Level 1 emergencies, one position may assume many responsibilities, whereas in higher-level emergencies (Levels 2 and 3), several positions may be required. The IMT would be mobilized, as appropriate, to fill ICS roles. The FRT functions under the Operations section in the ICS.

The FRT consists of trained personnel that will respond to all Company emergency incidents. Trained and qualified third-party contractors will be called on to fill the Incident Command System/Unified Command (ICS/UC) roles as required, including but not limited to positions in the Operations, Planning, Logistics and Finance sections. Note as well, that if requested by the local governing emergency management agency, Enbridge may provide a Liaison Officer to a community's Emergency Operations Center.

Key responsibilities for the FRT are aligned with the ICS organizational structure (Refer to ICS 207 Organization Chart).

Assignment of responsibilities in the ICS starts with the top position (i.e., IC) and works down, as required. The IC and SOFR roles must be filled at all times during the emergency. The IC would mobilize positions directly beneath, as required. When a position is not mobilized, the position directly above would assume the responsibilities. ICS when activated requires as a minimum an IC and Safety Officer positions.

Determine the level of emergency and tier of response required to effectively manage the response. Refer to the Company Emergency Classification and Tiered Response Chart located in *Section 2.2 Notification Procedures*.

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ICS Is Scalable And Will Be Activated To Meet The Needs Of An Emergency	
Level 1	ICS is activated, IMT staffed as required, at minimum IC and Safety Officer will be staffed
Level 2	ICS is activated; IMT to manage reactive and proactive phases. Command and general staff will be required with the potential to fill additional positions. CMT will be notified based on significant incident criteria. IST should be notified.
Level 3	Full IMT will be activated, CMT and IST is notified.

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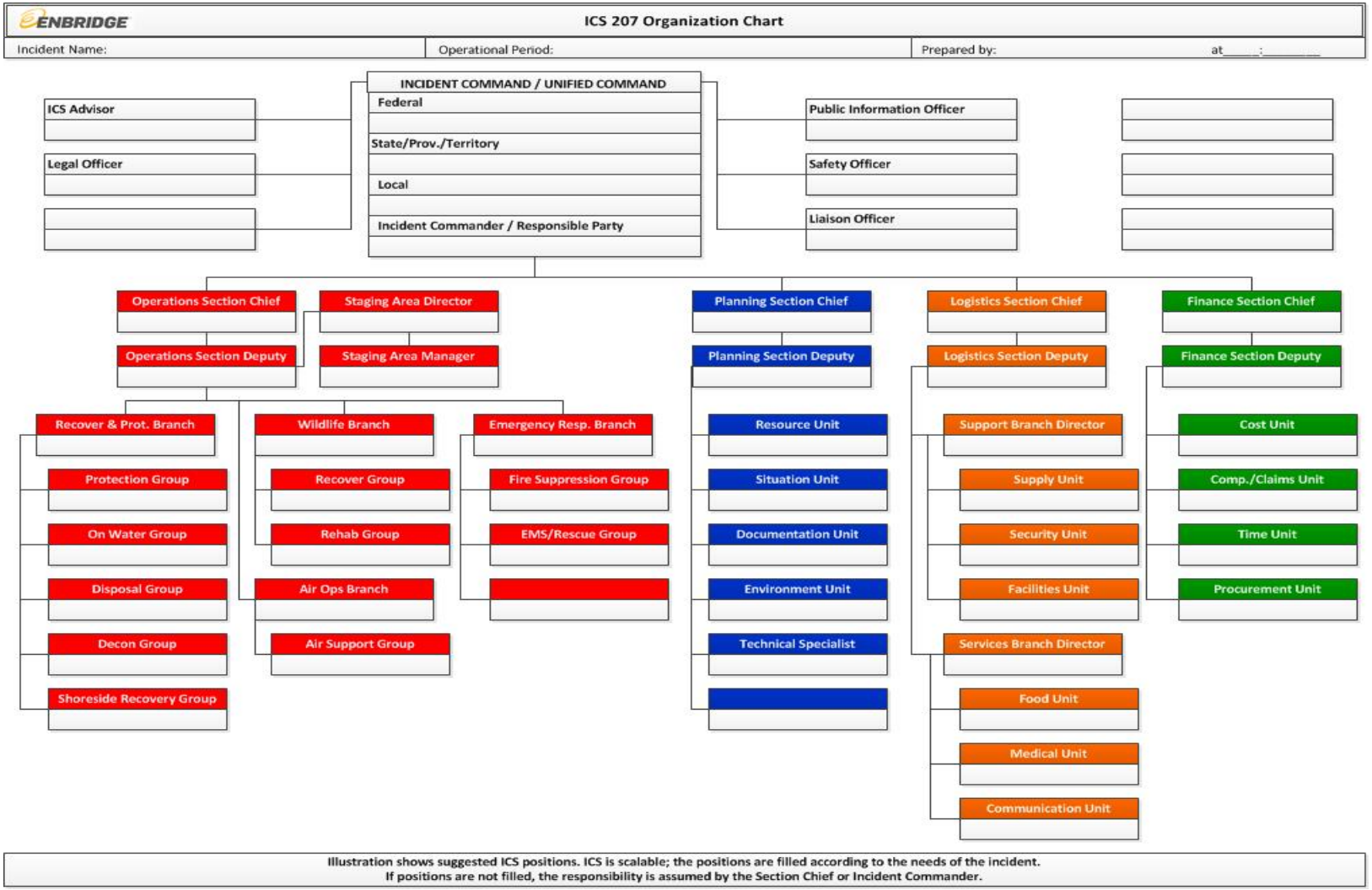
2.4.1.3 ICS 207 Organization Chart



This chart is not an all-inclusive list of potential ICS roles

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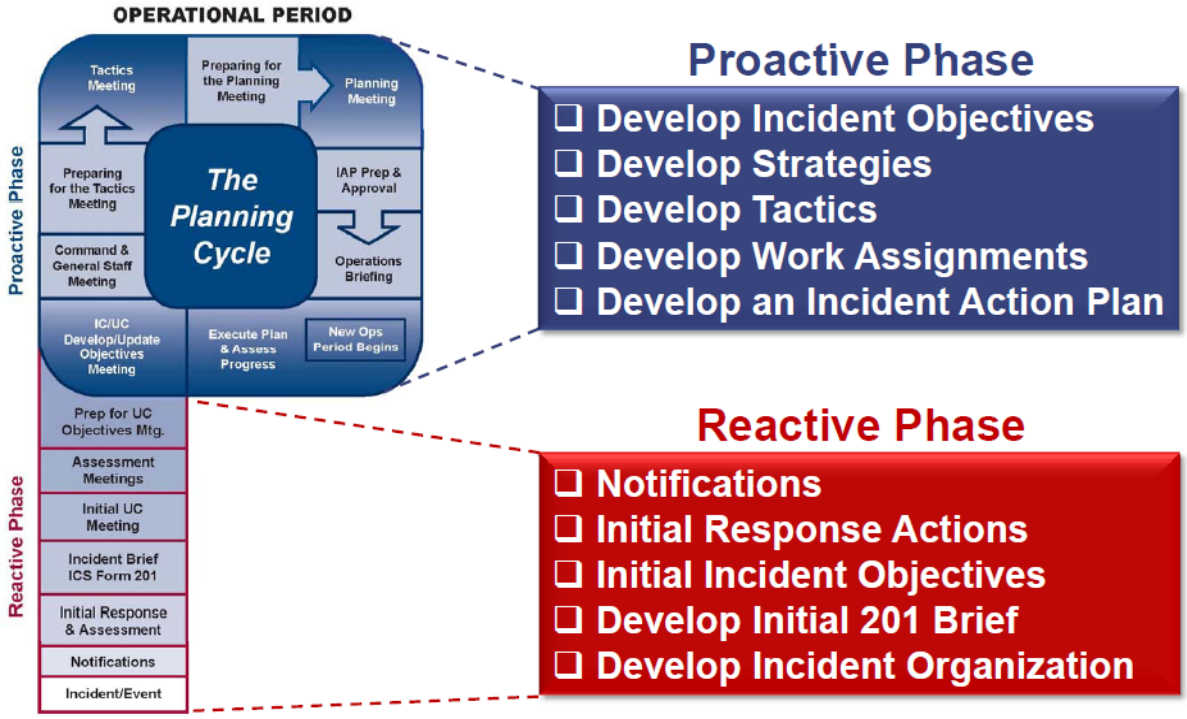
2.4.1.4 Operational Period Planning Cycle

In more complex Level 2 or 3 emergencies, planning for the next operational period will take place in the proactive phase. The move from reactive to proactive will be situation specific and depends on the incident, skill set and staff available. Once the scale and scope of the event has been determined (a situational assessment is complete and a common operating picture has been established), the IC should discuss with the IMT and determine when a move into the proactive phase would be appropriate. A detailed IAP will be put together and the following meetings will be conducted to ensure all personnel are briefed on the objectives and have the appropriate work plan in hand.



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2.4.1.5 ICS Roles and Responsibilities

The roles and responsibilities under the Incident Command System are identified on the following pages by ICS section.

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INCIDENT COMMAND / UNIFIED COMMAND

FEDERAL

STATE / PROVINCIAL

INCIDENT COMMANDER / RESPONSIBLE PARTY

Overall Management of the incident

ICS ADVISOR
Responsible for providing continuity and consistency throughout the response organization

INCIDENT SUPPORT TEAM LIASION
Responsible for updating the Incident Support Team

DEPUTY INCIDENT COMMANDER

Special projects and replacement

PUBLIC INFORMATION OFFICER
Develops and releases information about the incident to the news media, incident personnel and other appropriate agencies and organizations

LIAISON OFFICER

Contact for all responding resources and outside agencies

SAFETY OFFICER
Develops and recommends measures for assuring personnel safety and assess and/or anticipates hazardous and unsafe situations

LEGAL OFFICER

Legal advice

Command and Staff Roles 2.4.1.5a

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All activities must be documented at all Levels of Emergency

Command and Staff Roles 2.4.1.5a

Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:

- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit including medication, computer and climate specific work wear.
- ❑ Inform your people leader as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH) and role specific requirements.
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations: Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Abide by and champion Enbridge Values and Code of Conduct.
- ❑ Consider human factors in decision making and exercise emergency authority to stop and prevent unsafe acts.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions, own it then report it to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure any equipment you require is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Wear the appropriate vest and role identification where possible
- ❑ Understand and enforce safe working hours and lead by example
- ❑ Consider Human Factors in decision making
- ❑ Exercise emergency authority to stop and prevent

Incident Commander

The IC's responsibility is the overall management of the incident. On most incidents, the command activity is carried out by a single IC. The IC is selected by qualifications and experience. Deputies may also be used at the section and branch levels of the ICS/UC organization. Deputies should have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time. When span of control becomes an issue for the IC, a Deputy IC/Chief of Staff may be assigned to manage the Command Staff.

Incident Commander and Qualified Individual Checklist

- ❑ Serve as initial point of contact for response personnel in initial response.
- ❑ Assess incident situation, declare emergency level, and activate ICS system.
- ❑ Ensure regulatory notifications have been completed.
- ❑ Establish appropriate communications with external agencies.
- ❑ Oversee initial and ongoing response actions.
- ❑ Notify and activate local resources/contractors/ response organizations as required.
- ❑ Obtain a briefing from the prior IC (201 Briefing).
- ❑ Determine incident objectives & general direction for managing the incident.
- ❑ Establish the immediate priorities.
- ❑ Establish a command post (if applicable).
- ❑ Brief Command Staff and General Staff and ensure routine updates occur
- ❑ Ensure planning meetings are scheduled as required.
- ❑ Approve and authorize the implementation of an IAP.
- ❑ Ensure that adequate safety measures are in place.
- ❑ Coordinate activity for all Command Staff and General Staff.
- ❑ Coordinate with key people and officials.
- ❑ Approve requests for additional resources or for the release of resources above approved threshold.
- ❑ Keep internal and external stakeholders informed.
- ❑ Evaluate/Approve the use of trainees and auxiliary personnel. Other response personnel, such as volunteers and casual workers, will not be used unless there is a prevalent need, at that time.
- ❑ Authorize release of information to the news media.
- ❑ Ensure ICS 209 is completed and forwarded to appropriate higher authority.
- ❑ Analyze incident potential against environment, organizational impact and safety consequences.
- ❑ Consider need for extended (24-hour) coverage.
- ❑ Once a situation improves, the decision to downgrade the level is made by the Incident Commander and the applicable regulating agencies. All the affected persons and the media must be kept informed of the status of the emergency.
- ❑ Order the demobilization of the incident when appropriate.
- ❑ Ensure the ICS structure is being followed and address any discrepancies between line leadership and ICS leadership
- ❑ Motivate staff and celebrate milestones, progress and achievements
- ❑ Lead by example, be calm, listen well and communicate clearly, your attitude will affect others.

Deputy Incident Commander

The Deputy Incident Commander may assume responsibility for a specific portion of the primary position, work as relief, or be assigned other tasks. The Deputy should always be as qualified to make decisions and manage the incident as the Incident Commander.

Deputy Incident Commander Checklist

- ❑ If no assistant has been assigned to the Incident Commander, support the Incident Commander by documenting details of the emergency, focusing on activities and decisions made.
- ❑ Manage the flow of traffic to and communication with the Incident Commander so that the Incident Commander can focus on managing the incident.
- ❑ Conduct status update meetings.
- ❑ See Incident Support Team Liaison
- ❑ Deal with some day to day decision making.
- ❑ Assume duties of the Incident Commander, if required.

Public Information Officer

The PIO is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. Only one primary PIO will be assigned for each incident, including incidents operating under a Unified Command and multiple jurisdiction incidents. The PIO may also have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Agencies have different policies and procedures relative to the handling of public information.

Public Information Officer Checklist

- ❑ Review common responsibilities.
- ❑ Assist the UC/IC with maintaining a positive public perception of effective response activities
- ❑ Engage public and media via social media
- ❑ Brief the IC/UC regularly on media and public issues
- ❑ Review public messaging material developed by the Joint Information Center prior to distribution
- ❑ Determine from the ICS/UC if there are any limits on information release.
- ❑ Develop material for use in media briefings.
- ❑ Obtain IC/UC approval of media releases (after legal reviews it if possible)
- ❑ Inform media and conduct media briefings.
- ❑ Arrange for tours and other interviews or briefings that may be required.
- ❑ Manage a Joint Information Center if established.
- ❑ Obtain media information that may be useful to incident planning.
- ❑ Review current information summaries and/or displays on the incident and provide information on the status of the incident to assigned personnel.

For all media and public inquiries; the following will be recorded:

- ❑ Date and time of the inquiry;
- ❑ Name, employer and city of the media reporter;
- ❑ Questions and answers provided; and
- ❑ Time and station of any media broadcasts.

Liaison Officer

Incidents that are multi-jurisdictional, or have several governmental agencies involved, may require the establishment of the LNO position on the Command Staff. Only one primary LNO will be assigned for each incident, including incidents operating under UCS and multi-jurisdiction incidents. The LNO may have assistants as necessary, and the assistants may also represent other agencies or jurisdictions.

Liaison Officer Checklist

- ❑ Be a contact point for agency representatives; ensure updates are provided in a timely manner.
- ❑ Maintain a list of assisting and supporting agencies, including name and contact information. Monitor check-in sheets daily to ensure that all agency representatives are identified.
- ❑ Assist in establishing and coordinating interagency contacts.
- ❑ Keep agencies supporting the incident aware of incident status (to include Historical/Archeological and Aboriginal Contacts).
- ❑ Monitor incident operations to identify current or potential inter-organizational problems.
- ❑ Participate in planning meetings, providing current resource status, including limitations and capability of assisting agency resources. Create advisory groups as necessary.
- ❑ Coordinate response needs for cooperating agencies activities with the OSC during responses.
- ❑ Coordinate response resource needs for incident investigation activities with the OSC.
- ❑ Ensure that all required agency forms, reports and documents are completed prior to demobilization.
- ❑ Brief IC/UC on agency issues and concerns.
- ❑ Coordinate activities of visiting dignitaries.

Ensure the following information is documented

- ❑ Authority limits (e.g., financial, contractual, supervisory, media/public relations, etc.);
- ❑ Work delegation agreements;
- ❑ Government approvals;
- ❑ Follow-up requirements/responsibilities;
- ❑ Landowners/stakeholders' permission to enter land from landowner/government;
- ❑ Agreement on dealings with sensitive areas;
- ❑ Consensus on alternative requirements regarding items (accommodations, water, livestock relocation, etc.);
- ❑ Work with finance on any initial cost/inconvenience agreement.
- ❑ Agreements for use of cooperative equipment.

Incident Support Team

- ❑ Collect and report situational updates to Incident Support Team where applicable
- ❑ Communicate requests, constraints, and opportunities between the Incident Commander and Incident Support Team

Safety Officer

The SOFR function is to develop and recommend measures for assuring personnel safety and to assess and/or anticipate hazardous and unsafe situations. Only one primary SOFR will be assigned for each incident. The SOFR may have specialists as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities, such as air operations, hazardous materials, etc.

Safety Officer Checklist

- ❑ Identify hazardous situations associated with the incident associated with the location, weather and operations.
- ❑ Complete the initial IAP site safety and control analysis (ICS 201-5).
- ❑ Participate in tactics and planning meetings, and other meetings and briefings as required.
- ❑ Review the IAP for safety implications.
- ❑ Provide safety advice in the IAP for assigned responders.
- ❑ Exercise emergency authority to stop and prevent unsafe acts.
- ❑ Investigate accidents that have occurred within the incident area.
- ❑ Assign assistants, as needed.
- ❑ Review and approve the medical plan (ICS 206).
- ❑ Develop the site safety plan and publish site safety plan summary (ICS 208) as required.
- ❑ Coordinate with governmental safety agencies to ensure compliance with approved safety practices.
- ❑ Assign daily safety meetings at command post and work sites.

Ensure the following safety information specific to the release is recorded

- ❑ ICS Safety Officer (including relief activities, timing, etc.);
- ❑ Safety meetings (e.g., date, time, location, topics, attendees, action items);
- ❑ Hazard assessments, permits, inspections, and job observations;
- ❑ Identification and resolution of safety concerns;
- ❑ Identification of hazards and mitigation measures;
- ❑ Incidents/near misses/observations;
- ❑ Safety equipment and resources;
- ❑ Other emergency equipment (e.g., fire, medical, etc.);
- ❑ Records of atmospheric monitoring related to occupational hygiene.
- ❑ Copies of SDS;
- ❑ Records of conversations with safety regulators;
- ❑ Initial emergency site air testing results; and
- ❑ Air monitoring results for ongoing work at an emergency site.
- ❑ Develop some specific orientation to highlight unique incident hazards.
- ❑ Develop daily safety message as a focus for all meetings (ICS 223).

ICS Advisor

ICS Advisor is Responsible for providing continuity and consistency throughout the response organization, the ICS Advisor provides ICS expertise to the Incident Commander and the response team.

- ❑ Assist with the establishment of an appropriate ICS structure.
- ❑ Provide ICS expertize to the ICS and Incident Management Team
- ❑ Attend all planning meetings to ensure meeting continuity
- ❑ Be available to attend press briefing and clarify technical issues

Intelligence Security

The Intelligence Officer provides the Incident Commander with a conduit to intelligence information that can have a direct impact on the safety of response personnel and influence tactical decisions. The Intelligence Officer also ensures that sensitive information is handled in accordance with the prescribed safeguards

- ❑ Collect and analyze incoming intelligence information from all sources.
- ❑ Determine the applicability, significance, and reliability of incoming intelligence information.
- ❑ As requested, provide intelligence briefings to the ICS/UC.
- ❑ Provide intelligence briefings in support of the ICS Planning Cycle.
- ❑ Provide Situation Unit with periodic updates of intelligence issues that may impact operations.
- ❑ Answer intelligence questions and advise Command Staff and General Staff as appropriate.
- ❑ Supervise, coordinate, and participate in the collection, analysis, processing, and dissemination of intelligence.
- ❑ Assist in establishing and maintaining systematic, cross-referenced intelligence records and files.
- ❑ Establish liaison with all participating law enforcement agencies.
- ❑ Conduct first order analysis on all incoming intelligence and fuse all applicable incoming intelligence with current intelligence holdings in preparation for briefings.
- ❑ Prepare all required intelligence reports and plans.
- ❑ As the incident dictates, determine need to implant Intelligence Specialists in the Planning and Operations Sections.
- ❑ Liaise with LP Corporate Security

Legal Officer

Legal Officer Checklist

- ❑ Review common responsibilities.
- ❑ Obtain briefing from the IC.
- ❑ Advise the IC/UC, as appropriate, on all legal issues associated with response operations.
- ❑ Establish documentation guidelines for and provide advice regarding response activity documentation to all incident personnel.
- ❑ Provide legal input to the Documentation Unit, the Compensation/Claims Unit, and other appropriate units as requested.
- ❑ Review press releases, documentation, contracts and other matters that may have legal implications for the Company.
- ❑ Participate in ICS meetings and other meetings, as requested.
- ❑ Participate in incident investigations and the assessment of damages (including natural resource damage assessments).
- ❑ Liaise with Risk & Insurance

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OPERATIONS SECTION CHIEF
Manages operations directly applicable to the primary objectives

STAGING AREA DIRECTOR
Supervises staging area managers and coordinates their activities

OPERATIONS SECTION DEPUTY OR ON-SCENE COMMANDER
Support Operations Section Chief

STAGING AREA MANAGER
Receives, maintains, checks-in/out, stores and distributes resources

RECOVERY & PROTECTION BRANCH DIRECTOR
Oversee & implement containment & cleanup

- **PROTECTION GROUP** — *Deploy containment*
- **ON WATER GROUP** — *Manage water recovery*
- **DISPOSAL GROUP** — *Coordinate on-site activities*
- **DECON GROUP** — *Decontamination*
- **SHORESIDE RECOVERY GROUP** — *Shoreside cleanup*

WILDLIFE BRANCH DIRECTOR
Minimize wildlife injuries

- **WILDLIFE RECOVERY GROUP** — *Search & tag wildlife*
- **WILDLIFE REHAB GROUP** — *Oversight facility ops*

AIR OPS BRANCH DIRECTOR
Logistical support to aircraft

AIR SUPPORT GROUP
Coordinate support to aircraft

EMERGENCY RESPONSE BRANCH DIRECTOR
Implement emergency measures

- **PUBLIC SAFETY LEADER** — *Coordinate public protection*
- **FIRE SUPPRESSION GROUP** — *Suppression & resources*
- **EMS/RESCUE GROUP** — *Coordinate response*
- **LAW ENFORCEMENT GROUP** — *Directing law enforcement activities and manage public protection action*

Operations Section Roles 2.4.1.5b

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All activities must be documented at all Levels of Emergency

Operations Section Roles 2.4.1.5b

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Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:

- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual/Activity Log (ICS 214a).

Operations Section Chief

The OSC, a member of the General Staff, is responsible for the management of all operations directly applicable to the primary mission. Assignment as the OSC will be based on qualifications and experience. If a response is federalized or has federal participation, the OSC will normally be selected from the agency with the most jurisdictional responsibility for the incident and will work in the ICP.

The OSC activates and supervises organization elements in accordance with the IAP and directs its execution. The OSC also directs the preparation of Unit operational plans, requests or releases resources, makes expedient changes to the IAP, as necessary, and reports such to the IC.

Based on the needs of the incident, the Operations Section Chief may establish an:

On-Scene Commander

- ❑ Coordinates and directs on-scene operational activities under the direction of the OSC or Deputy On-Scene Commander (DOSC).

Or Branch Director(s)

- ❑ Responsible for the implementation of the portion of the IAP appropriate to the branches.

Operations Section Chief Checklist

- ❑ Review common responsibilities.
- ❑ Obtain briefing from IC/UCS.
- ❑ Request sufficient section staffing for both operations & planning activities.
- ❑ Convert operational incident objectives into strategic and tactical options through a work analysis matrix.
- ❑ Coordinate and consult with the Planning Section Chief (PSC), SOFR, technical specialists, modeling scenarios, trajectories on selection of appropriate strategies and tactics to accomplish objectives.
- ❑ Identify kind and number of resources required to support selected strategies.
- ❑ Subdivide work areas into manageable units.
- ❑ Develop work assignments and allocate tactical resources based on strategy requirements.
- ❑ Coordinate planned activities with the SOFR to ensure compliance with safety practices.
- ❑ Prepare ICS 234 Work Analysis Matrix with PSC to ensure Strategies, Tactics and tasks are in line with ICS 202 Response Objectives to develop ICS 215.
- ❑ Participate in the planning process and the development of the tactical portions (ICS 204 and ICS 220) of the IAP.
- ❑ Assist with development of long-range strategic, contingency, and demobilization plans.
- ❑ Supervise operations section personnel.
- ❑ Monitor need for and request additional resources to support operations as necessary.
- ❑ Evaluate and monitor current situation for use in next operational period planning.
- ❑ Utilize valve schematics and control point maps, digital copies can be accessed by typing the URL into the browser http://myteamsites.cnpl.enbridge.com/sites/EmergencySM/maps/default.aspx
- ❑ Interact and coordinate with Command staff on achievements, issues, problems, significant changes special activities, events, and occurrences.
- ❑ Troubleshoot operational problems with other IMT members.
- ❑ Implement the IAP.
- ❑ Supervise and adjust operations organization and tactics as necessary.
- ❑ Participate in operational briefings to IMT members as well as briefings to media, and visiting dignitaries.
- ❑ Assemble/dissemble task force/strike teams as appropriate.
- ❑ Identify/utilize staging areas.
- ❑ Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
- ❑ Receive and implement applicable portions of the Incident Demobilization Plan.

Operations Section Deputy

The Operations Section Deputy is as fully qualified as an OSC. The roles of the DOSC are flexible. Specifically, the DOSC may support the OSC in a relief capacity;

- ❑ To oversee operations in the ICP while OSC participates in the incident planning process; or
- ❑ To supervise field operations in lieu of an On-Scene Commander. The DOSC may be selected from other organizations / agencies / jurisdictions in a multi-agency/multi-jurisdictional incident.
- ❑ Refer to Operations Section Chief duties.

On-Scene Commander

Coordinates and directs on-scene operational activities under direction of the Operations Section Chief or Deputy as necessary and provided a Deputy OSC is not assigned to that task. The On-Scene Commander may also be assigned to supervise Operations Branch Directors in the field and is responsible for providing input into the IAP development as well as implementation of the IAP for all field tactical operations.

- ❑ Review common responsibilities.
- ❑ Ensure response activities are implemented in accordance with the IAP.
- ❑ Ensure all response personnel are aware of and follow guidelines set forth in the Site Safety Plan (ICS 208)
- ❑ Report all injuries to the Safety Officer.
- ❑ Coordinate site access control with the Security Officer.
- ❑ Review Division/Group Assignment Lists (ICS Form 204) and modify based on effectiveness of current operations.
- ❑ Direct or coordinate tactical field activities either directly or through supervision of Operations Branch Directors, Division/Group Supervisor, or Task Force/Strike Team Leaders.
- ❑ Request maps and charts of impacted areas as required to support field operations.
- ❑ Assign specific work tasks to Division /Group Supervisors.
- ❑ Resolve logistics problems reported by subordinates
- ❑ Receive Incident Status Summary input from the Division/Group Supervisors and forward to Situation Unit
- ❑ Report to Operations Section Chief when the IAP is to be modified and significant change in status of events.
- ❑ Approve accident and medical reports originating from the field.

Staging Branch Director

The Staging Branch Director is responsible for supervising the Staging Area Managers as well as coordinating their activities including assigning Staging Area Managers and receiving, maintaining, checking –in/out, storing, and distributing resources. The Staging Branch Director is only activated if multiple staging areas are established that require multiple Staging Area Managers. The Director will generally remain in the ICP and supervise the Staging Area Managers from there.

Staging Branch Director Checklist

- ❑ Review Common Responsibilities.
- ❑ Proceed to Command Post.
- ❑ Establish communication with all Staging Area Managers in the field.
- ❑ Establish consistent check-in/out functions at each Staging Area using the ICS 211p (personnel) and 211e (equipment) forms as well as the ICS 210 Change of Status form.
- ❑ Determine any support needs for equipment, feeding, sanitation and security and provide to Staging Area Manager or Logistics Section Chief.
- ❑ Assist Staging Area Managers with maintenance service for equipment at Staging Area as appropriate.
- ❑ Respond to request for resource assignments. (Note: This may be direct from the OSC/DOSC or via the Incident Communications Center.)
- ❑ Determine required resource levels from the OSC/DOSC.
- ❑ Advise the OSC/DOSC when reserve levels reach minimums.
- ❑ Coordinate with Staging Area Managers and Logistics Section regarding staging requirements for ordered and en-route resources.
- ❑ Demobilize Staging Area(s) in accordance with the Incident Demobilization Plan.
- ❑ Debrief with OSC/DOSC or as directed at the end of each shift.

Staging Area Manager

The Staging Area Managers (STAM's) are individually assigned by the Staging Branch Director to a specific staging area and responsible for managing all activities within that area which includes establishing, maintaining, check-in, storage, and distribution of resources at staging. The Managers report to the Staging Branch Directors and are typically utilized when multiple staging areas are established. The Managers should work closely with the Security Manager, Resource Unit, Operations, and Logistics.

Staging Area Manager Checklist

- ❑ Review common responsibilities.
- ❑ Proceed to staging area.
- ❑ Establish staging area layout.
- ❑ Obtain briefing from person you are relieving, if applicable.
- ❑ Determine any support needs for equipment, feeding, sanitation, and security.
- ❑ Establish check-in function as appropriate.
- ❑ Coordinate with Logistics Section Chief regarding equipment requests.
- ❑ Determine required resources levels from the OSC/DOSC.
- ❑ Ensure security of staged resources.
- ❑ Post area for identification and traffic control.
- ❑ Request maintenance service for equipment at staging area as appropriate.
- ❑ Respond to request for resource assignments.
- ❑ Advise the OSC/DOSC when reserve levels reach minimums.
- ❑ Maintain and provide status to Resource Unit of all resources in staging area.
- ❑ Demobilize staging area in accordance with the Demobilization Plan.
- ❑ Debrief with OSC/DOSC or as directed at the end of each shift.

Recovery and Protection Branch

The Recovery and Protection Branch Director (typically activated only for oil spills) is responsible for overseeing and implementing the protection, containment and cleanup activities established in the IAP.

Recovery and Protection Branch Checklist

- ❑ Review Branch Director Responsibilities.
- ❑ Identify Divisions, Groups, and resources assigned to the Branch.
- ❑ Obtain briefing from OSC/DOSC/On-scene Commander and person you are relieving.
- ❑ Implement IAP for Branch by assigning specific work tasks.
- ❑ Develop with subordinates alternatives for Branch control operations.
- ❑ Review Division/Group Assignment Lists (ICS 204) for Divisions/Groups within the Branch. Modify lists based on effectiveness of current operations.
- ❑ Attend planning meetings at request of the OSC/DOSC/On-scene Commander.
- ❑ Ensure through chain of command that Resources Unit is advised of changes in the status of resources assigned to the Branch.
- ❑ Report to OSC/DOSC/On-scene Commander when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- ❑ Approve accident and medical reports originating within the Branch.
- ❑ Consider demobilization well in advance.
- ❑ Debrief with OSC/DOSC and/or as directed at the end of each shift.

Protection Group

The Protection Group Supervisor is responsible for the deployment of containment, diversion, and adsorbent/absorbent materials in designated locations in compliance with the IAP. Depending on the size of the incident, the Protection Group may be further divided into Teams, Task Forces and Resources.

Protection Group Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Implement Protection Strategies in the IAP.
- ❑ Direct, coordinate, and assess the effectiveness of protective actions.
- ❑ Modify protective actions, as needed.
- ❑ Maintain Individual Log (ICS 214a).

On Water Group

The On Water Recovery Group Supervisor is responsible for managing on water recovery operations in compliance with the IAP. The Group may be further divided into Teams, Task Forces and Single Resources.

On Water Group Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Implement Recovery Strategies in the IAP
- ❑ Direct, coordinate, and assess the effectiveness of on water recovery actions.
- ❑ Modify recovery actions as needed

Disposal Group

The Disposal Group Supervisor is responsible for coordinating the on-site activities of personnel engaged in collecting, storing, transporting, and disposing of waste materials in compliance with the IAP.

Disposal Group Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Implement the Disposal Portion of the IAP.
- ❑ Ensure compliance with all hazardous waste laws and regulations.
- ❑ Maintain accurate record of recovered materials.
- ❑ Maintain Individual Log (ICS 214a)

Shoreside Recovery Group

The Shoreside Recovery Group Supervisor is responsible for managing shoreside cleanup operations in compliance with the IAP.

Shoreside Recovery Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Implement Recovery Strategies in the IAP.
- ❑ Direct, coordinate, and assess the effectiveness of shoreside recovery actions.
- ❑ Modify recovery actions as needed.

Decon Group

The Decontamination Group Supervisor is responsible for the operations of the decontamination element and for providing decontamination, as required by the CP.

Decon Group Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Implement Decontamination Plan.
- ❑ Determine resource needs to implement Decontamination Plan and requisition through Logistics using ICS 213 Resource Request.
- ❑ Establish the Contamination Reduction Corridor(s).
- ❑ Identify contaminated people and equipment.
- ❑ Supervise the operations of the decontamination element in the process of decontaminating people and equipment.
- ❑ Direct and coordinate decontamination activities.
- ❑ Maintain control of movement of people and equipment within the Contamination Reduction Zone.
- ❑ Brief Site Safety Officer on conditions.
- ❑ Maintain communications and coordinate operations with the Entry Leader.
- ❑ Maintain communications and coordinate operations with the Site Access Control Leader and the Safe Refuge Area Manager (if activated).
- ❑ Coordinate the transfer of contaminated patients requiring medical attention (after decontamination) to the Medical Group.
- ❑ Coordinate handling, storage, and transfer of contaminants within the Contamination Reduction Zone.

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Operations Section Roles Emergency Response 2.4.1.5c

OPERATIONS SECTION CHIEF
Manages operations directly applicable to the primary objectives

OPERATIONS SECTION DEPUTY OR ON-SCENE COMMANDER
Support Operations Section Chief

STAGING AREA DIRECTOR
Supervises staging area managers and coordinates their activities

STAGING AREA MANAGER
Receives, maintains, checks-in/out, stores and distributes resources

RECOVERY & PROTECTION BRANCH DIRECTOR
Oversee & implement containment & cleanup

- **PROTECTION GROUP** — *Deploy containment*
- **ON WATER GROUP** — *Manage water recovery*
- **DISPOSAL GROUP** — *Coordinate on-site activities*
- **DECON GROUP** — *Decontamination*
- **SHORESIDE RECOVERY GROUP** — *Shoreside cleanup*

WILDLIFE BRANCH DIRECTOR
Minimize wildlife injuries

- **WILDLIFE RECOVERY GROUP** — *Search & tag wildlife*
- **WILDLIFE REHAB GROUP** — *Oversight facility ops*

AIR OPS BRANCH DIRECTOR
Logistical support to aircraft

- **AIR SUPPORT GROUP** — *Coordinate support to aircraft*

EMERGENCY RESPONSE BRANCH DIRECTOR
Implement emergency measures

- **PUBLIC SAFETY LEADER** — *Coordinate public protection*
- **FIRE SUPPRESSION GROUP** — *Suppression & resources*
- **EMS/RESCUE GROUP** — *Coordinate response*
- **LAW ENFORCEMENT GROUP** — *Directing law enforcement activities and manage public protection action*

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Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:

- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual Log (ICS 214a).

Emergency Response Branch Director

The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation. For a USA incident designate a Law Enforcement Group supervisor and for a Canadian incident designate a Public Safety Leader.

Emergency Response Branch Director Checklist

- ❑ Review Branch Director Responsibilities
- ❑ Develop with subordinates alternatives for Branch control operations.
- ❑ Attend planning meetings at the request of the OSC/ DOSC/On-scene Commander
- ❑ Review Division/Group Assignment Lists (ICS Form 204) for Divisions/Groups the within the Branch. Modify lists based on effectiveness of current operations.
- ❑ Assign specific work tasks to Division/Group Supervisors.
- ❑ Report to OPS when: the IAP is to be modified; additional resources are needed; surplus resources are available; or hazardous situations or significant events occur.
- ❑ Approve accident and medical reports (home agency forms) originating within the Branch.

Fire Suppression

The Fire Suppression Group Supervisor, when activated, is under the direction of the OSC. The Fire Department's initial Operations Section Chief at a maritime fire is often redesignated the Fire Suppression Branch Director under a UC. The Director is responsible for the assigned portion of the IAP that deals with fire suppression activities, assignment of resources within the branch, reporting progress of control activities, and status of resources within the branch in compliance with the IAP.

Fire Suppression Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Prioritize responses to incident-related fires.
- ❑ Determine resource needs.
- ❑ Direct and coordinate firefighting mission.
- ❑ Manage dedicated firefighting resources.
- ❑ Brief Emergency Response Branch Director on activities.

EMS / Rescue Group

Search and Rescue Mission Coordinator

The SMC is typically a government agency representative designated (usually pre-designated) by the SAR Response System for each specific SAR mission and coordinates the overall response to a SAR mission in compliance with the IAP.

- ❑ Gather detailed information relating to the distress situation.
- ❑ Issue an Urgent marine Information Broadcast (UMIB) to inform mariners in the area of the distress situation.
- ❑ Conduct SAR operations in accordance with SAR procedures and Standards.
- ❑ Assign an SAR On-Scene Coordinator (SAR OSC) as appropriate.
- ❑ Use search planning tools to develop search plans that optimally use available resources.
- ❑ Ensure all documentation to the Documentation Unit Leader.

Search and Rescue On-Scene Coordinator

The SAR OSC coordinates the SAR mission on-scene using the resources made available by SMC.

Search and Rescue On-Scene Coordinator

- ❑ Establish and maintain communications with the SMC.
- ❑ Assume operational control and coordination of all SRUs assigned until relieved or mission is completed.
- ❑ Establish and maintain communications with all SRUs using assigned on scene channels.
- ❑ Require all aircraft to make "operations normal" reports to the SAR OSC.
- ❑ Establish a common altimeter setting for all on scene aircraft.
- ❑ Obtain necessary information from arriving SRU's, provide initial briefing and search instructions, and provide advisory air traffic service to aid pilots in maintaining separation from one another.
- ❑ Carry out SAR action plans.
- ❑ Receive and evaluate all sighting reports, and divert SRUs to investigate sightings.
- ❑ Obtain search results from departing SRUs.
- ❑ Submit sequentially numbered situation reports (SITREPs) to the SMC at regular intervals.

Law Enforcement Group (USA)

Under the direction of the Emergency Response Branch Director, the Law Enforcement Group Supervisor is responsible for coordinating and directing all law enforcement activities related to the incident, including but not limited to, isolating the incident, crowd control, traffic control, evacuations, beach closures, and/or perimeter security in compliance with the IAP.

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Determine resource needs.
- ❑ Direct and coordinate law enforcement response.
- ❑ Manage dedicated law enforcement resources.
- ❑ Manage public protection action (e.g., evacuations, beach closures, etc.)
- ❑ Brief Emergency Response Branch Director on activities.

Public Safety Leader

Under the direction of the Emergency Response Branch Director, the Public Safety Leader is responsible for coordinating and directing all public safety actions related to the incident, including but not limited to, isolating the incident, monitoring, evacuations and establishing a reside registration cente

In the US some of these responsibilities would be under the Law Enforcement Group – see "Law Enforcement Group (USA)

- ❑ Confirm communication links with the Emergency Response Branch Director and the Operations Section Chief.
- ❑ In conjunction with the Emergency Response Branch Director, the Operations Section Chief and the Planning Section Chief, develop and implement an Incident Action Plan (IAP)..
- ❑ Assign personnel to assume the following positions as required: Air Monitoring (LEL), Reception Centre Representative, Roadblocks.
- ❑ Dispatch trained air monitoring personnel with the appropriate hand-held LEL monitors to record concentrations at the nearest un-evacuated residences downwind of the incident site.
  - ❑ Mobilize third party mobile air monitoring units.
  - ❑ Maintain communication with the applicable government regulator and environment agency regarding air monitoring needs and activities.
- ❑ Determine the need for and location of Roadblocks to isolate and secure the area.
  - ❑ Ensure all Roadblock personnel are properly trained and have appropriate roadblock kits.
  - ❑ Ensure all Roadblock personnel have the legal authority to restrict access to the area.
- ❑ In conjunction with the Operations Section Chief determine the hazard area; identify the residents, businesses, industrial operators, and / or transients in the area; and determine the initial public protection measures to be taken and determine the need for evacuation / sheltering. This is based on air monitoring (LEL) readings at the nearest downwind residence.
- ❑ Review resident lists, industrial users lists, reception centres, and telephone numbers within the ERP.
- ❑ Assess public impact in conjunction with the local authorities and discuss public protection measures.
- ❑ Prioritize residents and industrial users to establish the order of evacuation. Coordinate evacuation or shelter of residents, industrial users (via Telephoners).
  - ❑ Determine who needs to be notified and what script will be used: Shelter-in-Place or evacuation message.
  - ❑ If residences are evacuated, a reception centre must be established and it must be located in a safe area away from the hazard.
  - ❑ Determine and notify landowner / occupant(s) as soon as possible.
- ❑ Establish in coordination with Logistics the alternate drinking water sources for the public where required
- ❑ Determine the need for helicopters to identify human activity in the area.
- ❑ Regularly update the Emergency Response Branch Director and the Operations Section Chief .
  - ❑ Confirm communication links with: Air Monitors, Reception Centre, Roadblocks, and Telephoners. Personnel should check in at scheduled intervals.
  - ❑ Review and confirm evacuation of residents, area industrial users, transients, etc. from the area.
- ❑ If required, request that a Notice to Airmen (NOTAM) is issued to restrict the airspace above the hazard area.

Roadblock

In the event of an emergency, roadblock locations and road detours will be established. Enbridge may initially establish and maintain roadblocks until relieved by highway maintenance contractors or police. The Public Safety Leader must be continuously updated by Roadblock personnel so that all vehicles entering and exiting are accounted for.

- ❑ In conjunction with the Public Safety Leader, determine the need for and location of roadblocks.
- ❑ Pickup and check roadblock kits.
- ❑ Proceed to roadblock locations.
- ❑ Confirm communication links.
- ❑ Establish roadblocks to secure the hazard area.
- ❑ Monitor area for LEL with personal monitors and document readings.
- ❑ Report all reading changes / increases to the Public Safety Leader.
- ❑ For your own safety, ensure the Public Safety Leader is notified immediately if readings are approaching 10% LEL.
- ❑ Document all incoming and outgoing traffic, personnel, and equipment.
- ❑ Forward information given to you by people passing through your location to the Public Safety Leader.
- ❑ Maintain communication with the Public Safety Leader.
- ❑ Maintain roadblock locations. Do not leave until requested to do so by the Public Safety Leader or until relieved by other Roadblock personnel.
- ❑ Assist with post-incident activities.

Air Monitoring Unit

LEL or other toxic substance concentrations will be monitored continuously during the incident response. It is crucial that Air Monitors continuously update the Public Safety Leader with monitored results. If air monitoring readings show high levels of LEL the Public Safety Leader may need to initiate evacuation / shelter of additional residences, change the location for site control or ignite the release (if applicable).

- ❑ Obtain and check equipment and information (maps, forms, communications, reports, monitors, safety, and breathing equipment).
- ❑ Confirm communication links.
- ❑ Monitor closest downwind public location or residence.
- ❑ Monitor environment for adverse effects.
- ❑ Document and report all readings at established intervals to the Public Safety Leader.
- ❑ For your own safety, ensure the Public Safety Leader is notified immediately if readings are approaching 10% LEL.
- ❑ Prepare Mobile Monitoring Plan.

Telephone Unit

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

- ❑ Confirm resident contact lists are available.
- ❑ Confirm communication links.
- ❑ In conjunction with the Public Safety Leader, determine who needs to be notified (residents, businesses, industrial users, etc.).
- ❑ Review with the Public Safety Leader the telephoner scripts to be used: Shelter-in-Place or Evacuation Phone Message.
- ❑ Contact residents and industrial users and advise them to evacuate or shelter.
- ❑ Document all resident interactions and report this information to the Public Safety Leader . Immediately advise the Public Safety Leader about unsuccessful contacts and any residents requiring assistance.
- ❑ Assist with post-incident activities.

Reception Centre Unit

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

- ❑ Confirm Reception Centre is available for use.
- ❑ Establish Reception Centre.
- ❑ Confirm communication links.
- ❑ Receive evacuees and maintain a Reception Centre Registration Log.
- ❑ Arrange for food and accommodations for the evacuees.
- ❑ Record and follow up on all evacuees who choose to make their own accommodation arrangements.
- ❑ Arrange for temporary care of pets (if necessary) and the security of evacuated property.
- ❑ Establish and oversee compensation administration activities at the reception centre.
- ❑ Reimburse evacuees for their immediate out-of-pocket expenses and log details on a Resident Compensation Log.
- ❑ Where possible, provide evacuees with information regarding their property and the incident.
- ❑ Forward all media and incident inquiries to the Public Information Officer.
- ❑ Report all names of evacuees who have registered at the Reception Centre to the Public Safety Leader.
- ❑ Document activities using the Emergency Actions Log.
- ❑ Assist with post-incident activities.
- ❑ Confirm information to be released to public with the Public Information Officer.
- ❑ Address resident concerns and forward them to the Public Safety Leader.

Operations Section Roles Emergency Response 2.4.1.5c

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Operations Section Roles Wildlife 2.4.1.5d

OPERATIONS SECTION CHIEF
Manages operations directly applicable to the primary objectives

STAGING AREA DIRECTOR
Supervises staging area managers and coordinates their activities

OPERATIONS SECTION DEPUTY OR ON-SCENE COMMANDER
Support Operations Section Chief

STAGING AREA MANAGER
Receives, maintains, checks-in/out, stores and distributes resources

RECOVERY & PROTECTION BRANCH DIRECTOR
Oversee & implement containment & cleanup

- **PROTECTION GROUP** — *Deploy containment*
- **ON WATER GROUP** — *Manage water recovery*
- **DISPOSAL GROUP** — *Coordinate on-site activities*
- **DECON GROUP** — *Decontamination*
- **SHORESIDE RECOVERY GROUP** — *Shoreside cleanup*

WILDLIFE BRANCH DIRECTOR
Minimize wildlife injuries

- **WILDLIFE RECOVERY GROUP** — *Search & tag wildlife*
- **WILDLIFE REHAB GROUP** — *Oversight facility ops*

AIR OPS BRANCH DIRECTOR
Logistical support to aircraft

AIR SUPPORT GROUP
Coordinate support to aircraft

EMERGENCY RESPONSE BRANCH DIRECTOR
Implement emergency measures

- **PUBLIC SAFETY LEADER** — *Coordinate public protection*
- **FIRE SUPPRESSION GROUP** — *Suppression & resources*
- **EMS/RESCUE GROUP** — *Coordinate response*
- **LAW ENFORCEMENT GROUP** — *Directing law enforcement activities and manage public protection action*

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Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:

- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual Log (ICS 214a).

Wildlife Branch Director

The Wildlife Branch Director is responsible for minimizing wildlife injuries during spill responses, coordinating early aerial and ground reconnaissance of the wildlife at the spill site and reporting results to the SUL; advising on wildlife protection strategies, including divisionary boom, hazing measures, in-situ burning, and chemical countermeasures; removing of oiled carcasses; employing wildlife hazing measures as authorized in the IAP; and recovering and rehabilitating impacted wildlife.

A central Wildlife Processing Center should be identified and maintained for, evidence tagging, transportation, veterinary services, treatment and rehabilitation storage, and other support needs. The activities of private wildlife care groups, including those employed by the RP, will be overseen and coordinated by the Wildlife Branch Director.

Wildlife Branch Director Checklist

- ❑ Review Branch Director Responsibilities.
- ❑ Develop the Wildlife Branch portion of the IAP.
- ❑ Supervise Wildlife Branch operations.
- ❑ Determine resource needs.
- ❑ Review the suggested list of resources to be released and initiate recommendation for release of resources.
- ❑ Assemble and disassemble teams/task forces assigned to the Wildlife Branch.
- ❑ Report information about special activities, events, and occurrences to the OPS.
- ❑ Assist the Volunteer Coordinator and Training Specialist in determining training needs of wildlife recovery volunteers.
- ❑ Conduct all wildlife protection, recovery, and rehabilitation activities in compliance with the IAP.

Wildlife Recovery Group

The Wildlife Recovery Group is responsible for coordinating the search or collection and field tagging of dead and live impacted wildlife and transporting them to the processing center(s). This group should coordinate with the Planning Situation Unit and Air Operations Branch Director in conducting aerial and group surveys of wildlife populations in the vicinity of the spill. They should also deploy acoustic and visual wildlife hazing equipment, as needed.

Wildlife Recovery Checklist

- ❑ Review Division/Group Supervisor Responsibilities.
- ❑ Determine resource needs.
- ❑ Establish and implement protocols for collection and logging of impacted wildlife.
- ❑ Coordinate transportation of wildlife to processing station(s).

Wildlife Rehab Group

The Wildlife Rehabilitation Group is responsible for the oversee of facility operations, including: receiving oiled wildlife at the processing center, recording essential information, collecting necessary samples, and conducting triage, stabilization, treatment, transport and rehabilitation of oiled wildlife. The Wildlife Rehabilitation Center Manager is responsible for assuring appropriate transportation to appropriate treatment centers for oiled animals requiring extended care and treatment.

Wildlife Rehab Checklist

- ❑ Review Common Responsibilities.
- ❑ Determine resource needs and establish a processing station for impacted wildlife.
- ❑ Process impacted wildlife and maintain logs.
- ❑ Collect numbers/types/status of impacted wildlife and brief the Wildlife Branch Operations Director.
- ❑ Coordinate the transport of wildlife to other facilities.
- ❑ Coordinate release of recovered wildlife.
- ❑ Implement Incident Demobilization Plan.

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Operations Section Roles Air Ops 2.4.1.5e

OPERATIONS SECTION CHIEF
Manages operations directly applicable to the primary objectives

OPERATIONS SECTION DEPUTY OR ON-SCENE COMMANDER
Support Operations Section Chief

STAGING AREA DIRECTOR
Supervises staging area managers and coordinates their activities

STAGING AREA MANAGER
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Oversee & implement containment & cleanup

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WILDLIFE BRANCH DIRECTOR
Minimize wildlife injuries

- **WILDLIFE RECOVERY GROUP** — *Search & tag wildlife*
- **WILDLIFE REHAB GROUP** — *Oversight facility ops*

AIR OPS BRANCH DIRECTOR
Logistical support to aircraft

AIR SUPPORT GROUP
Coordinate support to aircraft

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Implement emergency measures

- **PUBLIC SAFETY LEADER** — *Coordinate public protection*
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Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:

- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
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- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
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- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual Log (ICS 214a).

Air Ops Branch

The AOBD is ground-based and is primarily responsible for preparing the air operations portion (ICS 220) of the IAP and/or providing logistical support to incident aircraft. The AOBD will ensure that agency directives, to include COMDTINST M3710.1e, flight manuals, unit restrictions, and other agency directives will not be violated by incident aircraft (e.g., flight hours, hoist limitations, night flying, etc.). After the IAP is approved, the AOBD is responsible for overseeing the tactical and logistical assignments of the Air Operations Branch. In coordination with the Logistics Section, the AOBD is responsible for providing logistical support to aircraft operating on the incident.

Air Ops Branch Checklist

- ❑ Review Common Responsibilities.
- ❑ Organize preliminary air operations.
- ❑ Coordinate airspace use with the FAA. Request declaration (or cancellation) of Temporary Flight Restriction (TFR) IAW FAR 91.173 and post Notice to Airmen (NOTAM) as required.
- ❑ Attend the tactics meeting and planning meeting to obtain information for completing ICS 220.
- ❑ Participate in preparation of the IAP through the OSC/DOSC. Insure that the air operations portion of the IAP takes into consideration the Air Traffic Control requirements of assigned aircraft.
- ❑ Coordinate with the COML to designate air tactical and support frequencies.
- ❑ Perform operational planning for air operations.
- ❑ Prepare and provide Air Operations Summary Worksheet (ICS 220) to the Air Support Group and Fixed-Wing Bases.
- ❑ Supervise all air operations activities associated with the incident.
- ❑ Evaluate helibase and helispot locations.
- ❑ Establish procedures for emergency reassignment of aircraft.
- ❑ Coordinate approved flights of non-incident aircraft in the TFR.
- ❑ Coordinate Coast Guard air assets with the appropriate Command Center(s) through normal channels on incident air operations activities.
- ❑ Consider requests for logistical use of incident aircraft.
- ❑ Report to the OSC/DOSC on air operations activities.
- ❑ Report special incidents/accidents.
- ❑ Develop Aviation Site Safety Plan in concert with SOFR.
- ❑ Arrange for an accident investigation team when warranted.
- ❑ Debrief with OSC/DOSC as directed at the end of each shift.

Air Support Group

Air Tactical Group Supervisor

The ATGS tasks for oil spills are: coordination and scheduling of aircraft operations to locate, observe, track, survey, support dispersant applications or open water skimming operations, and others. Coordination activities may be performed by the ATGS while airborne.

- ❑ Review Air Tactical Group Supervisor Responsibilities.
- ❑ Obtain a briefing from the Air Operations Branch Director or the OPS.
- ❑ Coordinate dispersant, in-situ burning, and bioremediation application through the Air Operations Branch Director.
- ❑ Coordinate air surveillance mission scheduling and observer assignments with the SUL.
- ❑ Identify remote sensing technology that may enhance surveillance capabilities.
- ❑ Coordinate air surveillance observations and provide reports by the most direct methods available.
- ❑ Report on air surveillance and operations activities to the Air Operations Branch Director.
- ❑ Coordinate application-monitoring requirements with the Helicopter and Fixed Wing Coordinators and the Situation Unit.
- ❑ Report on air application activities to the Air Operations Branch Director.

Air Support Group Supervisor

The ASGS is primarily responsible for supporting aircraft and aircrews. This includes: 1) providing fuel and other supplies; 2) providing maintenance and repair of aircraft; 3) keeping records of aircraft activity, and 4) providing enforcement of safety regulations. The ASGS reports to the AOBD

- ❑ Review Common Responsibilities.
- ❑ Obtain a copy of the IAP from the AOBD, including Air Operations Summary Worksheet (ICS 220).
- ❑ Participate in AOBD planning activities.
- ❑ Inform AOBD of group activities.
- ❑ Identify resources/supplies dispatched for the Air Support Group.
- ❑ Request special air support items from appropriate sources through Logistics.
- ❑ Determine need for assignment of personnel and equipment at each airbase.
- ❑ Coordinate activities with AOBD.
- ❑ Obtain assigned ground-to-air frequency for airbase operations from the Communications Unit Leader (COML) or Communications Plan (ICS 205).
- ❑ Inform AOBD of capability to provide night flying service.
- ❑ Ensure compliance with each agency's operations checklist for day and night operations.
- ❑ Ensure dust abatement procedures are implemented at helibases and helispots.
- ❑ Provide crash-rescue service for helibases and helispots.
- ❑ Debrief as directed at the end of each shift.

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PLANNING SECTION CHIEF

Collects, evaluates and disseminates emergency information

PLANNING SECTION DEPUTY

Support Planning Chief

DOCUMENTATION UNIT

Establishes the incident documentation process, reviews records for accuracy and sorts files

TECHNICAL SPECIALISTS UNIT

Coordinates activities with appropriate consultants and contractors

DEMOBILIZATION UNIT

Organizes demobilization

SITUATION UNIT

Collects and analyzes incident data to determine the current status for all resources

RESOURCES UNIT

Maintains an accounting system indicating location and status for all resources

ENVIRONMENT UNIT

Coordinates the assessment of spill hazards and identification of environmentally sensitive areas

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All activities must be documented at all Levels of Emergency

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Roles Common To All

Common Responsibilities Checklist

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- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual/Activity Log (ICS 214a).

Planning Section Chief

The PSC, a member of the General Staff, is responsible for the collection, evaluation, dissemination, and use of incident information and maintaining status of assigned resources.

Information is needed to:
1) understand the current situation;
2) predict the probable course of incident events;
3) prepare alternative strategies for the incident, and
4) submit required incident status reports.

The PSC may have a Deputy PSC, who may be from an assisting governmental agency.

Planning Section Chief Checklist
- ❑ Review common responsibilities.
- ❑ Collect, process, and display incident information.
- ❑ Assist OSC in the development of response strategies.
- ❑ Supervise preparation of the IAP.
- ❑ Develop Situation Report (ICS 209)
- ❑ Facilitate planning meetings and briefings.
- ❑ Assign personnel already on-site to ICS/UC organizational positions as appropriate.
- ❑ Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation).
- ❑ Determine the need for any specialized resources in support of the incident.
- ❑ Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- ❑ Assemble information on alternative strategies.
- ❑ Provide periodic predictions on incident potential.
- ❑ Keep IMT apprised of any significant changes in incident status.
- ❑ Compile and display incident status information.
- ❑ Oversee preparation and implementation of the Incident Demobilization Plan.
- ❑ Incorporate plans (e.g., Traffic, Medical, Communications, and Site Safety) into the IAP.
- ❑ Develop other incident supporting plans (e.g., salvage, transition, security).
- ❑ Assist Operations with development of the ICS 234 Work Analysis Matrix.

Planning Section Deputy

The Planning Section Deputy may assume responsibility for a specific portion of the primary position (listed below) , work as relief, or be assigned other tasks. The Deputy should always be fully qualified to make decisions and manage the incident as the Planning Section Chief.

- ❑ Review common responsibilities.
- ❑ Collect, process, and display incident information.
- ❑ Assist OSC in the development of response strategies.
- ❑ Supervise preparation of the IAP.
- ❑ Develop Situation Report (ICS 209)
- ❑ Facilitate planning meetings and briefings.
- ❑ Assign personnel already on-site to ICS/UC organizational positions as appropriate.
- ❑ Establish information requirements and reporting schedules for Planning Section Units (e.g., Resources, Situation).
- ❑ Determine the need for any specialized resources in support of the incident.
- ❑ Establish special information collection activities as necessary (e.g., weather, environmental, toxics, etc.).
- ❑ Assemble information on alternative strategies.
- ❑ Provide periodic predictions on incident potential.
- ❑ Keep IMT apprised of any significant changes in incident status.
- ❑ Compile and display incident status information.
- ❑ Oversee preparation and implementation of the Incident Demobilization Plan.
- ❑ Incorporate plans (e.g., Traffic, Medical, Communications, and Site Safety) into the IAP.
- ❑ Develop other incident supporting plans (e.g., salvage, transition, security).
- ❑ Assist Operations with development of the ICS 234 Work Analysis Matrix.

Demobilization Unit

Responsible for developing the Incident Demobilization Plan.

Demobilization Unit Checklist
- ❑ Review common responsibilities.
- ❑ Review incident resources records to determine the likely size and extent of demobilization effort and develop a matrix.
- ❑ Coordinate demobilization with agency/company representatives.
- ❑ Monitor Operations Section resource needs.
- ❑ Identify surplus resources and probable release time.
- ❑ Utilize the demobilization checkout procedures for release of incident resources (ICS 221).
- ❑ Establish communications with off-incident facilities, as necessary.
- ❑ Develop an Incident Demobilization Plan including process by which suppliers inspect condition of released resources and sign off if acceptable prior to moving offsite.
- ❑ Distribute demobilization plan (on and off-site).
- ❑ Provide status reports to appropriate requestors.
- ❑ Develop incident check-out function for all units.
- ❑ Evaluate logistics and transportation capabilities to support demobilization.
- ❑ Ensure that all Sections/Units understand their specific demobilization responsibilities.
- ❑ Supervise execution of the incident demobilization plan.
- ❑ Brief the PSC on demobilization progress.

Resources Unit

Responsible for maintaining the status of all assigned tactical resources and personnel at an incident. Achieved by overseeing check-in of all tactical resources and personnel, maintaining a situation status board to indicate current location and status of resources.

Resources Unit Leader Checklist
- ❑ Review Common Responsibilities.
- ❑ Review Unit Leader Responsibilities.
- ❑ Establish the check-in (ICS 211P) function at command post.
- ❑ Work with Staging Area Manager(s) in the field to ensure they are utilizing the check-in (ICS 211P & E) process to track equipment and personnel arriving and departing the staging area.
- ❑ Prepare Organization Assignment List (ICS 203) and Organization Chart (ICS 207) working with each officer, section chief and unit leader.
- ❑ Ensure appropriate resource tracking process is established and communicated.
- ❑ Maintain master roster of all tactical resources checked in at the incident.
- ❑ Ensure ICS 210 Change Status forms are utilized when resources are reassigned to another location.
- ❑ Work with Operations and Logistics to review ICS 213RR resource requisition and provide input on resources available in staging.
- ❑ Maintain and post the current status and location and assignments of all tactical resources.
- ❑ Work with Operations and Environmental Unit to prepare strategies and tactics (ICS 234 Work Analysis Matrix) to support objectives (ICS 202)
- ❑ Draft ICS 215 Operational Planning Worksheet with Operations, Environment Unit and Safety to determine required resources needed to implement tactics in the field and what additional resources need to be ordered.
- ❑ Prepare appropriate parts of Division Assignment Lists (ICS 204).
- ❑ Attend meetings and briefings as required by the PSC.
- ❑ Provide resources and organization information to SITL for situation status display.

Environment Unit

Ensure that the following specific to the release is recorded:
- ❑ ICS Environmental Unit Leader (including relief activities, timing, etc.);
- ❑ Meetings where environmental issues are discussed (date, time, location, topics, attendees, & action items);
- ❑ Environmental sensitivity/issue information;
- ❑ Environmentally sensitive areas in/adjacent to the release site;
- ❑ Environmental assessment results;
- ❑ Mitigation measures and success of these measures;
- ❑ Agreements on key issues with government, landowners and other stakeholders;
- ❑ Environmental equipment and resources;
- ❑ Impacts on wildlife;
- ❑ Any waste or recovered product removed from a release site or temporary storage site; and
- ❑ Community air quality monitoring results.

Initial Situational Assessment
Upon discovery refer to High Consequence Area (HCA) and Control Point (CP) maps and tables in order to protect environmentally & economically sensitive areas. These maps include:

HCA Maps & Tables
- ❑ Regional Operations maintain maps identifying HCAs along the pipeline, including:
- ❑ High Population Areas (HPA)
- ❑ Other Population Areas (OPA)
- ❑ Commercially Navigable Waterways (CNW)
- ❑ Environmentally Sensitive Areas (ESA)
- ❑ Drinking Water (DW)

Control Point Maps
Regions maintain Control Point Map sets that identify product containment and recovery sites (control points) on high risk water-bodies that could be impacted by a pipeline leak. The impact mechanism could be via direct crossing, overland flow or spray.
Regional management is responsible for ensuring that a field reconnaissance of each control point is carried out at least once in a 3 year period.

Environment Unit Leader Checklist
- ❑ Review common responsibilities.
- ❑ Predict movement and dispersion of products.
- ❑ Provide clean up expertise.
- ❑ Engage specialists as needed (e.g., shoreline cleanup assessment, trajectory analysis, resources at risk and air monitoring).
- ❑ Develop and review sampling plans, water and air monitoring results.
- ❑ Review and recommend alternative technologies as identified in ACP.
- ❑ Work with LNO to establish advisory meetings as needed.
- ❑ State and Federal Natural Resource Trustees will also assess NRDA impacts, an Enbridge NRDA Manager will want to monitor Trustee activity to determine concerns and document Trustee sample and documentation activities .

Ensure that the following specific to the release is recorded
- ❑ ICS Environmental Unit Leader (including relief activities, timing, etc.);
- ❑ Meetings where environmental issues are discussed (date, time, location, topics, attendees, and action items);
- ❑ Environmental sensitivity/issue information;
- ❑ Environmentally sensitive areas in/adjacent to the release site;
- ❑ Environmental assessment results;
- ❑ Mitigation measures and success of these measures;
- ❑ Agreements on key issues with government, landowners and other stakeholders.
- ❑ Environmental equipment and resources;
- ❑ Impacts on wildlife;
- ❑ Any waste or recovered product removed from a release site or temporary storage site; and
- ❑ Community air quality monitoring results.

Documentation Unit

Responsible for providing incident documentation, reviewing records for accuracy and sorting documentation files. Due to the nature of the legal ramifications, individuals with legal and records management experience should be assigned to this particular duty and liaise with the Legal Officer during the entire cleanup scenario.

Documentation Unit Leader Checklist
- ❑ Review common responsibilities.
- ❑ Set up work area; begin organization of incident files.
- ❑ Establish duplication service, respond to requests.
- ❑ File all official forms and reports. (e.g. Legal Documentation and After Action Report)
- ❑ Review records for accuracy and completeness; inform appropriate units of errors or omissions.
- ❑ Provide incident documents as requested.
- ❑ Retain all documentation for official records.
- ❑ Organize files for submitting final incident documentation package.
- ❑ Prepare meeting summary (ICS 231).

Technical Specialist

Responsible for coordinating activities with appropriate consultants and contractors (e.g., accountants, engineers, oil spill clean-up experts, right-of-way agents, NRDA reps).

Technical Specialists Checklist
- ❑ Review common responsibilities.
- ❑ Provide technical expertise and advice to command and general staff.
- ❑ Attend meetings and briefings to clarify and help resolve technical issues.
- ❑ Provide expertise during the development of the IAP and other support plans.
- ❑ Work with the SOFR to mitigate unsafe practices.
- ❑ Work closely with LNO to help facilitate understanding among stakeholder and special interest groups.
- ❑ Be available to attend press briefings to clarify technical issues.
- ❑ Work closely with Operations Section to monitor compliance and planned actions.
- ❑ Research technical issues and provide findings to decision makers.
- ❑ Provide appropriate modeling and predictions as needed.
- ❑ Troubleshoot technical problems and provide advice on resolution.
- ❑ Review specialized plans and clarify meaning.

Situation Unit

The Situation Unit Leader (SITL) is responsible for collecting, processing and organizing incident information relating to the growth, mitigation or intelligence activities taking place on the incident. The SITL may prepare future projections of incident growth, maps and intelligence information .

Situation Unit Leader Checklist
- ❑ Review common responsibilities.
- ❑ Begin collection and analysis of incident data as soon as possible.
- ❑ Prepare, post, or disseminate resources and situation status information as required, including special requests.
- ❑ Prepare Incident Status Summary Form (ICS 209).
- ❑ Provide photographic services and maps as required.
- ❑ Conduct situation briefings at the command and general staff meetings, tactics meeting, planning and operations briefing.
- ❑ Develop IAP.
- ❑ Maintain Situation Report Board for incident in the common area of the ICP for all responders to view.

Environment Unit

Responsible for environmental matters associated with the response, including strategic assessment, modeling, surveillance, sensitive area identification, and environmental monitoring and permitting.

Environment Unit Leader Checklist
- ❑ Review common responsibilities.
- ❑ Predict movement and dispersion of products.
- ❑ Provide clean up expertise.
- ❑ Engage specialists as needed (e.g., shoreline cleanup assessment, trajectory analysis, resources at risk and community air monitoring).
- ❑ Develop and review sampling plans, water and community air monitoring results.
- ❑ Review and recommend alternative technologies as identified in ACP.
- ❑ Work with LNO to establish advisory meetings as needed.
- ❑ State and Federal Natural Resource Trustees will also assess NRDA impacts, an Enbridge NRDA Manager will want to monitor Trustee activity to determine concerns and document Trustee sample and documentation activities .
- ❑ Notify Operations of any potential water intake impacts

Planning Section Roles 2.4.1.5f

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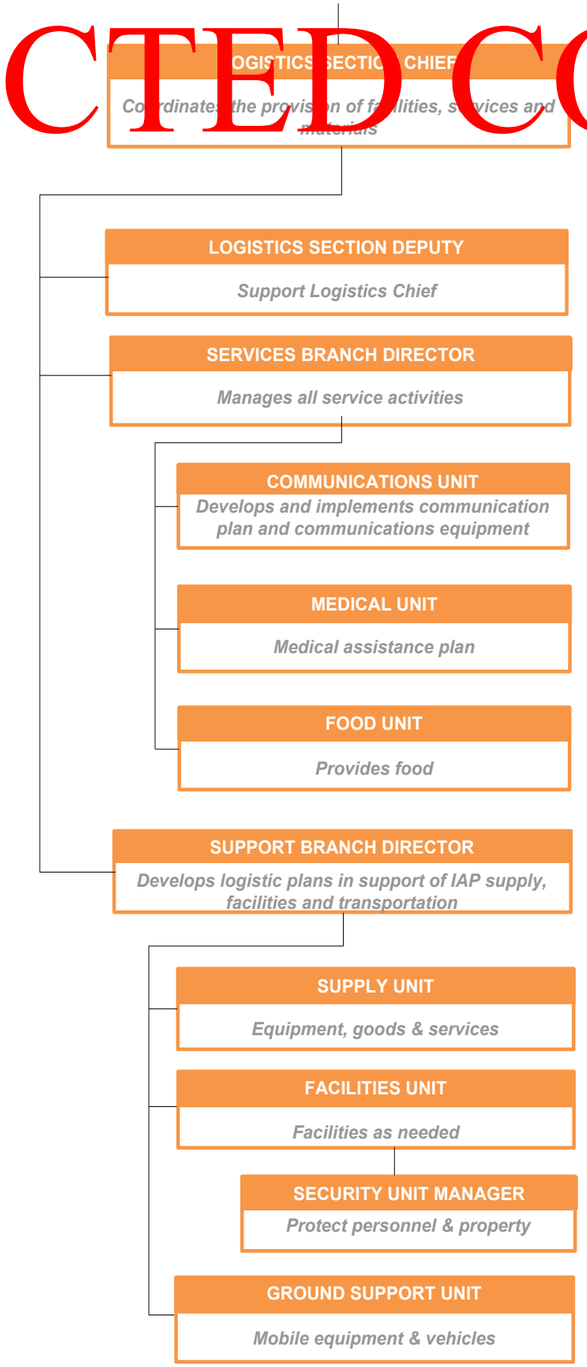

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All activities must be documented at all Levels of Emergency

Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:
- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual/Activity Log (ICS 214a).

Logistics Section Chief

The LSC, a member of the General Staff, is responsible for providing personnel, facilities, services, and material in support of the incident. The LSC participates in the development and implementation of the IAP and activates and supervises the Branches and Units within the Logistics Section.

The LSC may have Deputy LSCs. The Deputy LSC must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.
- ❑ Review common responsibilities.
- ❑ Plan the organization of the Logistics Section.
- ❑ Assign work locations and preliminary work tasks to section personnel.
- ❑ Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel.
- ❑ Assemble and brief Logistics Branch Directors and Unit Leaders.
- ❑ Determine and supply immediate incident resource and facility needs.
- ❑ In conjunction with Command, develop and advise all Sections of the resource approval and requesting process (ICS 213RR).
- ❑ Attend tactics meeting. Review proposed tactics for upcoming operational period for ability to provide resources and logistical support.
- ❑ Identify long-term service and support requirements for planned and expected operations.
- ❑ Advise Command and other Section Chiefs on resource availability to support incident needs.
- ❑ Develop the Communications Plan, Medical Plan and Traffic Plan.
- ❑ Identify resource needs for incident contingencies.
- ❑ Coordinate and process requests for additional resources.
- ❑ Track resource effectiveness and make necessary adjustments.
- ❑ Advise on current service and support capabilities.
- ❑ Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
- ❑ Receive and implement applicable portions of the Incident Demobilization Plan.
- ❑ Determine and supply long term incident resources and facility needs.
- ❑ Ensure the general welfare and safety of Logistics Section personnel.

Logistics Section Deputy

The Logistics Section Deputy may assume responsibility for a specific portion of the primary position (listed below) , work as relief, or be assigned other tasks. The Deputy should always be as qualified to make decisions and manage the incident as the Logistics Section Chief.
- ❑ Review common responsibilities.
- ❑ Plan the organization of the Logistics Section.
- ❑ Assign work locations and preliminary work tasks to section personnel.
- ❑ Notify the Resources Unit of the Logistics Section Units activated, including names and locations of assigned personnel.
- ❑ Assemble and brief Logistics Branch Directors and Unit Leaders.
- ❑ Determine and supply immediate incident resource and facility needs.
- ❑ In conjunction with Command, develop and advise all Sections of the resource approval and requesting process (ICS 213RR).
- ❑ Attend tactics meeting. Review proposed tactics for upcoming operational period for ability to provide resources and logistical support.

Logistics Section Deputy *continued*

- ❑ Identify long-term service and support requirements for planned and expected operations.
- ❑ Advise Command and other Section Chiefs on resource availability to support incident needs.
- ❑ Develop the Communications Plan, Medical Plan and Traffic Plan.
- ❑ Identify resource needs for incident contingencies.
- ❑ Coordinate and process requests for additional resources.
- ❑ Track resource effectiveness and make necessary adjustments.
- ❑ Advise on current service and support capabilities.
- ❑ Develop recommended list of Section resources to be demobilized and initiate recommendation for release when appropriate.
- ❑ Receive and implement applicable portions of the Incident Demobilization Plan.
- ❑ Determine and supply long term incident resources and facility needs.
- ❑ Ensure the general welfare and safety of Logistics Section personnel.

Service Branch Director

Responsible for the management of all service activities (Communications, Medical and Food Units) at the incident.
- ❑ Review common responsibilities.
- ❑ Obtain work materials.
- ❑ Determine level of service required to support operations.
- ❑ Participate in planning meetings of Logistics Sections personnel.
- ❑ Review IAP.
- ❑ Organize and prepare assignment for service branch personnel.
- ❑ Coordinate activities of branch units.
- ❑ Inform the LSC of branch activities.
- ❑ Resolve service branch problems.

Communications Unit

The Communications Unit Leader is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.
- ❑ Review common responsibilities.
- ❑ Review unit lead responsibilities.
- ❑ Determine unit personnel needs.
- ❑ Prepare and implement the radio communication plan (ICS 205).
- ❑ Ensure a communications center is established if needed.
- ❑ Establish appropriate communications distribution/ maintenance location at the incident site.
- ❑ Provide technical information as required on:
  - ❑ Adequacy of communication systems currently in operation.
  - ❑ Geographic limitation on communication systems.
  - ❑ Equipment capabilities/limitations.
  - ❑ Amount and types of equipment available.
  - ❑ Anticipated problems in the use of communications equipment.
- ❑ Supervise communications unit services.
- ❑ Maintain records on all communications equipment as appropriate.
- ❑ Ensure equipment is tested and repaired.
- ❑ Recover equipment from units being demobilized.

Medical Unit

The Medical Unit Leader (MEDL) is primarily responsible for; 1) development of the Medical Plan, 2) providing medical care and overseeing health aspects of response personnel, 3) obtaining medical aid and transportation for injured and ill incident personnel, 4) coordinating with other functions to resolve health and safety issues, and 5) preparation of reports and records

Review Common Responsibilities
- ❑ Review Unit Leader Responsibilities.
- ❑ Participate in Logistics Section/Service Branch planning activities.
- ❑ Establish the Medical Unit.
- ❑ Prepare the Medical Plan (ICS 206).
- ❑ Provide any relevant medical input into the planning process for strategy development.
- ❑ Coordinate with Safety Officer, Operations, hazmat specialists, and others on proper personnel protection procedures for incident personnel.
- ❑ Prepare procedures for major medical emergency.
- ❑ Develop transportation routes and methods for injured incident personnel.
- ❑ Ensure incident personnel patients are tracked as they move from origin, care Facility and disposition.
- ❑ Provide continuity of medical care for incident personnel.
- ❑ Declare major medical emergency as appropriate.
- ❑ Provide or oversee medical and rehab care delivered to incident personnel.
- ❑ Monitor health aspects of incident personnel including excessive incident stress.
- ❑ Respond to requests for medical aid, medical transportation and medical supplies.
- ❑ In conjunction with Finance/Admin Section, prepare and submit necessary authorizations, reports and administrative documentation related to injuries, compensation or death of incident personnel.
- ❑ Coordinate personnel and mortuary affairs for incident personnel fatalities.
- ❑ Provide oversight and liaison as necessary for incident victims among emergency medical care, medical examiner and hospital care.
- ❑ Provide for security and proper disposition of incident medical records.

Food Unit

Responsible for supplying the food needs for the entire incident, including all remote locations and providing food for personnel unable to leave their tactical field assignments. Supervises Communications, Medical and Food Units.
- ❑ Determine method of feeding to best fit each facility or situation.
- ❑ Obtain necessary equipment and supplies and establish cooking facilities.
- ❑ Ensure that well-balanced menus are provided.
- ❑ Maintain food service areas, ensuring that all appropriate health and safety measures are being followed.
- ❑ Supervise caterers, cooks, and other Food Unit personnel as appropriate.

Support Branch Director

Responsible for development of logistic plans in support of IAP supply, facilities and transportation.
- ❑ Review common responsibilities.
- ❑ Obtain work materials.
- ❑ Determine initial support operations in coordination with the LSC and service branch.
- ❑ Prepare initial organization and assignments for support operations.
- ❑ Assemble and brief support branch personnel.

Support Branch Director *continued*

- ❑ Prepare Security, Transportation, Traffic routing plans as required by the incident.
- ❑ Determine if assigned branch resources are sufficient.
- ❑ Maintain surveillance of assigned units work progress and inform the LSC of these activities.
- ❑ Resolve problems associated with requests from the Operations Section.

Supply Unit

The Supply Unit Leader (SPUL) is primarily responsible for procuring all resources (personnel, equipment and supplies) for the incident. If not conducted by the Staging Area Manager(s), the SPUL is also responsible for receiving, storing and distributing all supplies; maintaining an inventory of supplies; and storing, disbursing and servicing non-expendable supplies and equipment.
- ❑ Review Common Responsibilities.
- ❑ Review Unit Leader Responsibilities.
- ❑ Participate in Logistics Section/Support Branch planning activities.
- ❑ Determine the type and amount of resources en route to the incident.
- ❑ Review the IAP for information on operations of the Supply Unit.
- ❑ Develop and implement safety and security requirements for equipment/supplies storage areas/facilities.
- ❑ Order, receive, distribute and store supplies and equipment.
- ❑ Receive and respond to requests for personnel, supplies and equipment.
- ❑ Maintain an inventory of supplies and equipment.
- ❑ Prepare ICS 210 Change Status forms if equipment or other significant resources are deployed from storage areas.
- ❑ Service reusable equipment.
- ❑ Submit reports to the SUBD.

Ground Support Unit

The Ground Support Unit Leader (GSUL) is responsible for: 1) maintaining tactical equipment, vehicles, mobile ground support equipment, 2) providing fueling services, 3) transportation of personnel, supplies, food and equipment, 4) recording equipment usage time, including contract equipment assigned to the incident, and 5) implementing the Transportation Plan for the incident.
- ❑ Review Unit Leader Responsibilities
- ❑ Participate in Support Branch/Logistics Section planning activities.
- ❑ Develop and implement the Transportation Plan.
- ❑ Notify the Resource Unit of all status changes (ICS Form 210) on support and transportation vehicles.
- ❑ Arrange for and activate fueling, maintenance and repair of ground resources.
- ❑ Maintain inventory of support and transportation vehicles, establish file to record daily equipment use and communicate to Finance Section Chief.
- ❑ Provide transportation services in association with requests from the Logistics Section Chief.
- ❑ Collect use information on rented equipment.
- ❑ Requisition maintenance and repair supplies, e.g., fuel, spare parts.
- ❑ Maintain incident roads.
- ❑ Submit reports to Support Branch Director as directed.

Facilities Unit

The FACL is primarily responsible for the set up, maintenance and demobilization of incident facilities, e.g., Base, ICP and Staging Areas, as well as security services required to support incident operations. The FACL provides sleeping and sanitation facilities for incident personnel and manages Base operations. Each facility is assigned a manager who reports to the FACL and is responsible for managing the operation of the facility. The FACL reports to the SUBD.
- ❑ Review Unit Leader Responsibilities.
- ❑ Obtain a briefing from the SUBD or the LSC.
- ❑ Receive and review a copy of the IAP.
- ❑ Participate in Logistics Section/Support Branch planning activities.
- ❑ In conjunction with the Finance Section, determine locations suitable for incident support facilities and secure permission to use through appropriate means.
- ❑ Inspect facilities prior to occupation and document conditions and preexisting damage and/or contamination.
- ❑ Determine requirements for each facility, including the ICP.
- ❑ Prepare layouts of incident facilities.
- ❑ Notify Unit Leaders of facility layout.
- ❑ Activate incident facilities.
- ❑ Provide sleeping facilities, security services, food and water service, sanitation and shower service, & facility maintenance services, e.g., sanitation, lighting, clean up, trash removal, etc.
- ❑ Inspect all facilities for damage and potential claims.
- ❑ Demobilize incident facilities.
- ❑ Establish/maintain a file to record daily equipment use and communicate (FSC).

Security Manager

The SECM is responsible for providing safeguards needed to protect personnel and property from loss or damage.
- ❑ Establish contacts with local law enforcement agencies, as required.
- ❑ Contact the Resource Use Specialist for crews or Agency Representatives to discuss any special custodial requirements that may affect operations.
- ❑ Request required personnel support to accomplish work assignments.
- ❑ Ensure security of classified material and/or systems.
- ❑ Ensure that support personnel are qualified to manage security problems.
- ❑ Develop Security Plan for incident facilities and adjust for personnel and equipment changes as necessary.
- ❑ Develop Traffic Plan for safely routing vehicle traffic around incident area, ICP, staging areas, etc. and work with local law enforcement to implement.
- ❑ Provide personnel to perform personnel and equipment check-in duties (ICS Forms 211p & e) at ICP, Staging Areas, Bases, etc. as requested and communicate to RESL.
- ❑ Coordinate security activities with appropriate incident personnel
- ❑ Keep the peace, prevent assaults and settle disputes with response agencies.
- ❑ Prevent theft of all company, contractor, government and personal property.
- ❑ Document all complaints and suspicious occurrences.

Logistics Section Roles 2.4.1.5g

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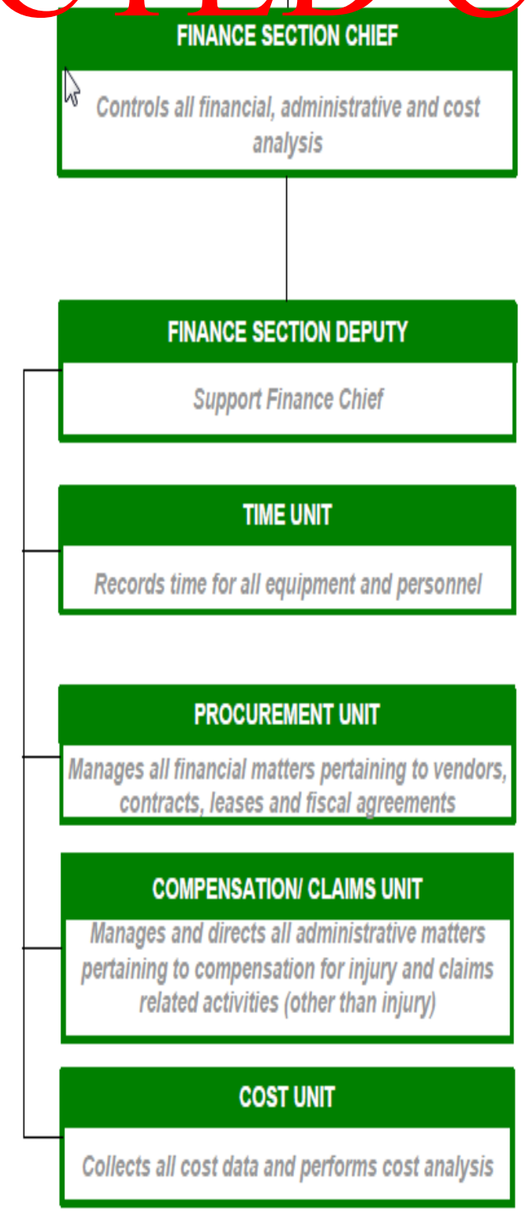

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Roles Common To All

Common Responsibilities Checklist

After initial notification and receiving your assignment:

- ❑ Review job assignment (e.g., Strike Team designation, position, etc.).
- ❑ Receive brief overview of type and magnitude of incident.
- ❑ Receive resource order number and request number.
- ❑ Receive reporting location & time.
- ❑ Receive travel instructions.
- ❑ Receive any special communications instructions (e.g., travel, radio frequency).
- ❑ Monitor incident related information from media, internet, etc., if available.
- ❑ Assess personal equipment readiness for specific incident and climate (e.g. medications, money, computer, medical record, etc.).
- ❑ Maintain a checklist of items and if possible a personal Go-Kit.
- ❑ Inform others as to where you are going and how to contact you.
- ❑ Review Incident Management Handbook (IMH).
- ❑ Take advantage of available travel to rest prior to arrival. Upon arrival at the incident, check-in at the designated check-in location. Check-in may be found at any of the following locations:
- ❑ Incident Command Post, Base/Camps, Staging Areas, and Heli-bases.
- ❑ If you are instructed to report directly to a line assignment, check-in with the Division/Group Supervisor.
- ❑ Receive briefing from immediate supervisor.
- ❑ Agency Representatives from assisting or cooperating agencies report to the LNO at the Incident Command Post after check-in.
- ❑ Acquire work materials.
- ❑ Abide by organizational code of ethics.
- ❑ Participate in IMT meetings and briefings, as appropriate.
- ❑ Document information and key actions.
- ❑ Ensure compliance with all safety practices and procedures. Report unsafe conditions to the SOFR.
- ❑ Supervisors shall maintain accountability for their assigned personnel with regard as to exact location(s) and personal safety and welfare at all times, especially when working in or around incident operations.
- ❑ Organize and brief subordinates.
- ❑ The Command Staff and General Staff shall ensure branches are identified, set up and allocate divisions and groups within them to stay within the recommended span of control (1 Supervisor per 4-7 people).
- ❑ Know your assigned communication methods and procedures for your area of responsibility and ensure that communication equipment is operating properly.
- ❑ Use clear text and ICS/UC terminology (no codes) in all radio communications.
- ❑ Complete forms and reports required of the assigned position and ensure proper disposition of incident documentation as directed by the Documentation Unit Leader (DOCL).
- ❑ Ensure all equipment is operational prior to each work period.
- ❑ Report any signs/symptoms of extended incident stress, injury, fatigue or illness for yourself or coworkers to your supervisor.
- ❑ Respond to demobilization orders and brief subordinates regarding demobilization.
- ❑ Prepare personal belongings for demobilization.
- ❑ Return all assigned equipment to appropriate location.
- ❑ Complete Demobilization check-out process before returning to home base.
- ❑ Participate in After-Action activities as directed.
- ❑ Carry out all assignments as directed.
- ❑ Maintain Individual/Activity Log (ICS 214a).

Finance Section Chief

The FSC, a member of the General Staff, is responsible for all financial, administrative and cost analysis aspects of the incident and for supervising members of the Finance/Admin Section. The FSC may have a Deputy FSC. The Deputy FSC must have the same qualifications as the person for whom they work as they must be ready to take over that position at any time.

Finance Section Chief Checklist

- ❑ Review common responsibilities.
- ❑ Participate in incident planning meetings and briefings as required.
- ❑ Review operational plans and provide alternatives where financially appropriate.
- ❑ Manage all financial aspects of an incident.
- ❑ Provide financial and cost analysis information as requested.
- ❑ Gather pertinent information from briefings with responsible agencies.
- ❑ Develop an operating plan for the Finance/Admin Section; fill supply and support needs.
- ❑ Meet with assisting and cooperating Agency Representatives, as needed.
- ❑ Maintain daily contact with agency(s) administrative headquarters on Finance/Admin matters.
- ❑ Ensure that all personnel time records are accurately completed and transmitted to home agencies, according to policy.
- ❑ Provide financial input to demobilization planning.
- ❑ Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- ❑ Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.
- ❑ Develop recommended list of section resources to be demobilized and initial recommendation for release when appropriate.
- ❑ Receive and implement applicable portions of the Incident Demobilization Plan.

Finance Section Deputy

The Finance Section Deputy may assume responsibility for a specific portion of the primary position listed below) ; work as relief, or be assigned other tasks. The Deputy should always be as qualified to make decisions and manage the incident as the Finance Section Chief.

Finance Section Deputy Checklist

- ❑ Review common responsibilities.
- ❑ Participate in incident planning meetings and briefings as required.
- ❑ Review operational plans and provide alternatives where financially appropriate.
- ❑ Manage all financial aspects of an incident.
- ❑ Provide financial and cost analysis information as requested.
- ❑ Gather pertinent information from briefings with responsible agencies.
- ❑ Develop an operating plan for the Finance/Admin Section; fill supply and support needs.
- ❑ Meet with assisting and cooperating Agency Representatives, as needed.
- ❑ Maintain daily contact with agency(s) administrative headquarters on Finance/Admin matters.
- ❑ Ensure that all personnel time records are accurately completed and transmitted to home agencies, according to policy.
- ❑ Provide financial input to demobilization planning.
- ❑ Ensure that all obligation documents initiated at the incident are properly prepared and completed.
- ❑ Brief agency administrative personnel on all incident-related financial issues needing attention or follow-up prior to leaving incident.
- ❑ Develop recommended list of section resources to be demobilized and initial recommendation for release when appropriate.
- ❑ Receive and implement applicable portions of the Incident Demobilization Plan.

Time Unit

The Time Unit is responsible for ensuring the accurate recording of daily personnel time, compliance with specific agency time recording policies and managing commissary operations if established at the incident.

- Record daily personnel time, ensure compliance with specific agency time recording policies, and manage commissary operations if established at the incident.
- ❑ Submit cost estimate data forms to Cost Unit as required.
- ❑ Ensure that all records are current and complete prior to demobilization.

Time Unit Leader Checklist

- ❑ Review common responsibilities.
- ❑ Track the time of all personnel on site. (ICS 211P)

Procurement Unit

Responsible for managing all financial matters pertaining to vendors, contracts, leases and fiscal agreements.

Procurement Unit Leader Checklist

- ❑ Review common responsibilities.
- ❑ Review incident needs and any special procedures with unit leaders, as needed.
- ❑ Coordinate with local jurisdiction on plans and supply sources.
- ❑ Develop a procurement plan.
- ❑ Prepare and authorize contracts and agreements with supply vendors.
- ❑ Interpret contracts and agreements.
- ❑ Coordinate with the compensation claims unit for processing claims.
- ❑ Coordinate cost data in contracts with the cost unit leader.
- ❑ Brief the FSC on current problems and recommendations, outstanding issues and follow-up requirements.

Compensation/Claims Unit

Responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims related activities (other than injury) for an incident.

Compensation/Claims Unit Leader Checklist

- ❑ Review common responsibilities.
- ❑ Review Unit Leader Responsibilities.
- ❑ Obtain briefing from Finance Section Chief.
- ❑ Establish contact with the Incident Medical Unit, Safety Officer and Liaison officer (or Agency Representatives if no LNO is assigned).
- ❑ Determine the need for compensation for injury and claims specialists and order personnel as needed.
- ❑ Review medical plan (ICS 206).
- ❑ Ensure that compensation/claims specialists have adequate workspace and supplies.
- ❑ Brief the Claims Specialists on incident activity.
- ❑ Review and coordinate procedures for handing claims with the procurement unit.
- ❑ Periodically review logs and forms produced by specialists to ensure that they are complete.
- ❑ If applicable, ensure that all compensation for injury and claims logs and forms are completed.
- ❑ Develop process for managing community claims.
- ❑ Brief FSC on unit status and activity.
- ❑ Demobilization unit in accordance the plan.

Cost Unit

The Cost Unit provides all incident cost analysis. It ensures the proper identification of all equipment and personnel requiring payment; records all cost data; analyzes and prepares estimates of incident costs; and maintains accurate records of incident costs.

- ❑ Collect and evaluate cost data to establish an accurate picture of the incident costs.
- ❑ Create cost summaries, cost estimates, and cost saving recommendations.
- ❑ Prepare resources-use cost estimates for the Planning Section.
- ❑ Identify all equipment and personnel requiring payment.

Cost Unit Leader Checklist

- ❑ Review common responsibilities.
- ❑ Obtain a briefing from the FSC.
- ❑ Coordinate with FSC on cost reporting procedures.
- ❑ Collect and record all cost data.
- ❑ Develop incident cost summaries.
- ❑ Prepare resources- use cost estimates for the planning section.
- ❑ Ensure all cost documents are accurately prepared.
- ❑ Complete all records prior to demobilizations.
- ❑ Provide reports to the FSC.

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2.4.1.6 Incident Command Posts

Centralize communications between Company emergency response personnel and external response agencies at the Incident Command Post.

The Operations Section Chief and IC, or designate, are responsible for selecting the location of the Incident Command Post based on factors such as wind direction, areas of high ground and site access. The potential for plume development/migration, explosion and toxic effects of a spill must be taken into account.

Locate the Incident Command Post:

- In the cold zone, e.g. a minimum of 90 m from a product release site or 800 m from a Natural Gas Liquids ("NGL") release site, or
- As determined by the IC or designate

Check wind direction frequently to ensure wind shifts do not compromise the safety of the Incident Command Post site.

If a vapor cloud is present or imminent, adapt the location of the Incident Command Post to the specific circumstances of the emergency. For example:

- In isolated areas, it may be more appropriate to locate the Incident Command Post several miles from the emergency site.
- In populated areas, it may be more appropriate to locate the Incident Command Post close to the emergency site.

For evolving incidents, the Incident Command Post may need to be moved to allow for expanding activities. This may include moving to a community center, hotel conference room or other location at the decision of the IC.

The Incident Command Post must be clearly illuminated and identified by signage at the emergency site entrance (or just inside), visible to all entering the site. The Incident Command Post must be attended at all times.

Incident Command Post personnel must maintain periodic contact with anyone entering the site alone (e.g., to shut off valves, survey the area, evacuate the public).

The ICS 208 Site Safety Plan must be posted on the situation status board at the Incident Command Post that identifies alert procedures, protective zones, evacuation routes and assembly.
Facilities required for oil spill response typically include:

- Staging sites;
- Decontamination and temporary waste handling sites;
- Accommodations; and
- Incident Command Post.

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The Incident Command Post will be the initial spill response management command post for assessing the incident and communicating with the FRT and the IMT. Each operational plan (pipeline, terminal, marine) will identify pre-designated primary Incident Command Post facilities and their locations, and options for other field Incident Command Posts.

Each primary Incident Command Post will have the following minimum materials:

- Maps (sensitivity and operational atlases, Control Point tactical plans, geographical response plans;
- Situation status boards;
- Spill response plans (the operational General Oil Spill Response Plan and corresponding operational plan); and
- Communications systems, including radio, internet and telephone.

Depending on the complexity of response and the amount of resources, personnel and management required, multiple or expanded facilities may be required.

During a major incident, the FRT, IMT and participating government agencies would require a formal external communications plan and team. The JIC would provide the venue for all key representatives in the response to prepare messages and communications for external parties jointly. The JIC is generally located away from the Incident Command Post but sufficiently near the center of activity. External affairs and press officers will be appointed to the JIC, so that all messages will be approved by the Incident Command Post before being issued.

Depending on the scale of the emergency, a Forward Operating Base (FOB) may be established to support tactical operations. Typically a FOB is not located near the Incident Command Post as it's used to support tactical operations. The base may be used for an extended time period and is support by the Incident Command Center.

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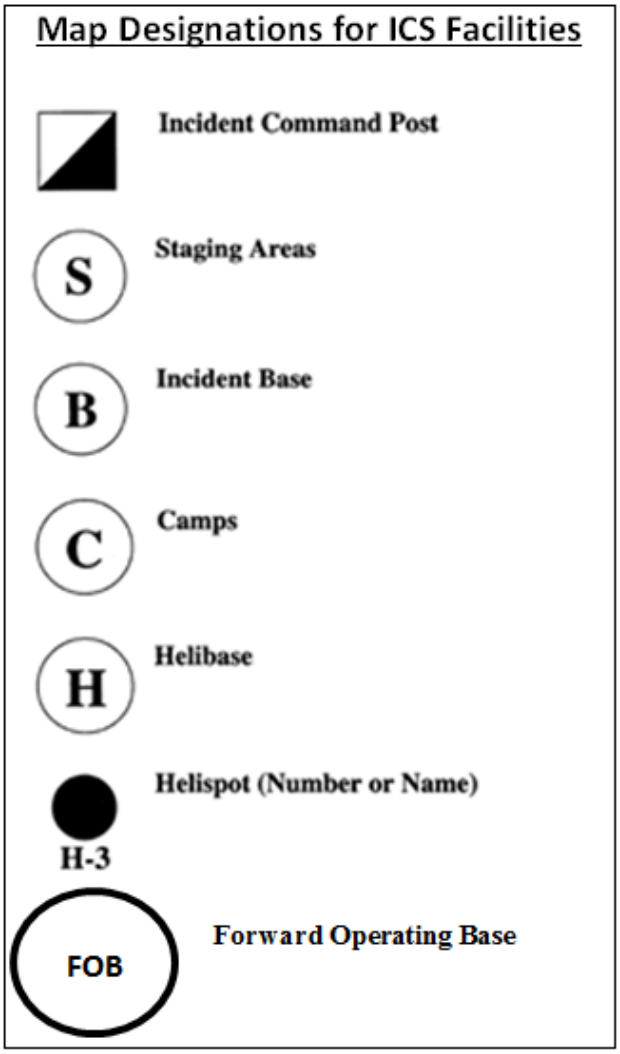

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2.4.1.7 Expanding Incidents / Unified Command

When an emergency crosses geographic areas, political boundaries or government departments, the IC may establish a unified command group that includes a representative from each jurisdiction (Federal, Provincial/State and local).

Depending upon the response situation and needs, the IMT may add specialized personnel, contractors and consultants to:

- Provide advice on operations and technical issues.
- Help in planning meetings.
- Interface with provincial and federal authorities, as needed.

The IMT will be responsible for:

- Safety
- Spill source control
- Community interface
- Wildlife activities
- Recovered material disposal
- Contract variations and business controls
- The overall management of the clean-up
- Corporate communications.

In the U.S., Federal and State agencies have the authority to exercise overall responsibility during a response. The designated federal monitoring officer monitors response operations undertaken by the IMT.

The environmental authority may recommend environmental priorities and provides expert environmental advice and services to the federal monitoring officer for review. The federal monitoring officer then passes this advice to the IC. The advice may cover a broad range of environmental matters, including:

- Weather conditions
- Spill fate and effects
- Sensitive areas.

Joint command may be established with a representative for the province/state working with the IC to establish response objectives and to approve incident action plans.

In the U.S., a Federal On-Scene Coordinator (“FOSC”) or a State On-Scene Coordinators (SOSC) may be designated by the Environmental Protection Agency or by the United States Coast Guard may support an emergency. FOSC’s are responsible for providing access to federal resources, technical assistance, coordinates, monitors or directs response efforts and serves as the point of contact for all federal efforts related to the emergency. SOSC’s essentially provide the same type of assistance but from a State perspective, not Federal.

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When federal and/or state agencies arrive on-scene to participate in managing a response action, the agencies and Enbridge will utilize a Unified Command structure to jointly manage the spill incident. In the Unified Command, decisions with regard to the response will be made by consensus and documented through a single IAP for each operational period. When a consensus cannot be reached, the FOSC has the ultimate decision-making authority under the National Contingency Plan ("NCP"). If in the rare occurrence this happens, the circumstances surrounding this action will be clearly documented in the IAP.

2.4.2 Site Security and Control

Security is necessary to protect the public and responders, prevent any additional damage due to sabotage, protect the equipment, and eliminate congestion at the work site due to unauthorized personnel. If there is a security incident, the Regional Emergency Response Coordinator should be notified.

The priority of all Enbridge personnel in any emergency is protecting the public and responders. The public will be prevented access to an emergency site while there is any danger of explosion, fire, hazardous vapors, or other hazardous condition.

For example:

- Routes into the emergency site will be sealed off and a security perimeter established.
- Local police will be contacted to set up road blocks at all access points as applicable.
- Employees/contractors, police and/or security personnel can be used as well as physical barriers (e.g. barricades and reflective tape) to control access to hazardous areas.

Security measures need to be established early in the incident to provide the following:	
✓	Protect personnel from loss or damage and assets
✓	Ensure the safety of the general public
✓	Establish a perimeter (zone of safety) around the spill area
✓	Ensure the general public does not interfere with the spill response and clean-up operations
✓	Ensure access for personnel and equipment to the access point, staging area and Incident Command Post

To ensure adequate security and depending on applicability, consider the following:

- Contact Enterprise Security.
- Contact the Company contracted security service.
- Request the assistance from the authority having jurisdiction and/or fire department to limit highway access to the spill scene by:
  - Setting up road blocks and beach closures where necessary to secure a safety zone.
  - Providing escort and access for spill response personnel and equipment, as needed.

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- Request assistance from local security firms to assist federal, provincial/state and local police departments and expand area of coverage at the scene.
- Establish a pass system and distribute prepared security passes to those who need to enter the site, as applicable.
- Request the Federal Aviation Administration ("FAA") or Transport Canada to restrict air space over the spill area, as applicable.
- Request the U.S. or Canadian Coast Guard to establish a safety zone in the spill area and that they limit access of all vessels not involved in the spill effort, as applicable.

2.4.3 Hazard-Specific Field Response Team Considerations

Enbridge uses an all hazards approach to mitigate and respond to a variety of hazards and threats. General procedures for response considerations listed below should still be applied where required.

2.4.3.1 Priorities

The Company will prudently over respond to any incident with priorities in the following order:

People
- Ensure safety of employees & contractors located in the field
- Ensure safety of staff located inside regional buildings
- Ensure safe of surrounding community
- Repair and restart assets

Environment
- Take mitigative action to prevent impacts of an incident

Assets
- Where possible protect company assets located on regional property; tanks, pipelines, equipment, vehicles, etc.

Reputation

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2.4.3.2 Safety

- Conduct hazard assessment
- Ensure proper documentation has been completed (Safe Work Permit, Field Level Hazard Assessment, etc.)
- Consider your safety first, then the safety of others
- Stay out of hazard zone
- If performing recon, approach up wind, uphill, up stream
- Determine the immediate hot zone
- Ensure proper levels of PPE
- Ensure PPE is in line with Site Safety and Health Plans (SSHP)
- Establish site control (hot zone, warm zone, cold zone and security).

2.4.3.3 Notifications

- Follow Notification Procedures (Notification section of this plan A2)

2.4.3.4 Isolate And Deny Entry

- Evacuate the immediate area
- Deny entry to the immediate area
- Ask others to help deny entry into the area
- If on the scene, ask agency resources to help deny entry into immediate area

2.4.3.5 Command Management

- First Responders assumes the role of the Incident Commander until transfer of command occurs
- Make an announcement to everyone on scene that you have assumed Command
- Set up mobile Incident Command Post (ICP) trailer up wind, uphill and upstream of the incident in the cold zone
- Establish a Staging Area up wind, uphill and upstream of the incident in the cold zone
- Begin assigning ICS positions as per Regional Incident Management Team
- Meet and brief responding Agencies as they arrive at the ICP trailer
- Ensure Safety Officer begins and completes a Site Safety Plan

See section 2.4 for information on Enbridge's Response Management System

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2.4.4 Hazard Specific Response Actions

Specific actions to mitigate and respond to following hazards are listed below:

2.4.4.1 Medical Emergencies

The three basic steps to follow in a medical emergency are as follows:

CHECK the person

- Does the person want your help? If the person is unable to answer, assume you have consent to give first aid
- Check the person's ABCs

CALL for assistance/additional resources

- If the person responds, find out if there is a need to call for additional help (e.g. 911, EMS)
- If the person does not respond, call for help.

CARE for life-threatening conditions first

- Reduce the risk of disease transmission by using protective equipment such as disposable gloves and a barrier device

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2.4.4.2 Pipeline Release

In the event of a pipeline release carry out the following actions:

- CCO Notification
- Shut off flow
- Isolate leaking section of piping
- Notify Terminal Supervisor, Manager or designee
- Contain in a safe fashion
- Initiate spill containment (if outside containment area)
- Evacuate contents of line with suction pump or flush with water to remove remaining oil
- Block and purge affected equipment
- Initiate recovery/clean-up actions

2.4.4.3 Tank Failure

In the event of a tank failure carry out the following actions:

- CCO Notification
- Immediately stop work activity
- If safe, ensure dike drains are closed
- Notify Terminal Supervisor, Manager or designee
- Secure area
- Initiate response actions
- Shut off flow to tank
- Begin transfer of contents to other tankage.

2.4.4.4 Equipment Failure

In the event of equipment failure, carry out the following actions:

- Shut off the flow and transfer pumps. Close header & tank valves
- Notify Terminal Operations/Manager
- Evacuate the area as necessary
- Drain remaining contents to containment tanks
- Secure area if safe to do so
- Tighten leaky valve or fitting, if safe
- Initiate response actions

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On-Water Spill Surveillance Guidelines

- Spill surveillance should begin as soon as possible to aid response personnel with assessing spill size, movement and potential impact locations.
- Cloud shadows, sediment, floating organic matter, submerged sand banks, or wind-induced patterns on the water may resemble an oil slick if viewed from a distance.
- It is difficult to adequately observe oil on the water from a boat, dock or shoreline.
- Spill surveillance is best accomplished using helicopters or small planes. Helicopters are preferred due to their superior visibility and maneuverability characteristics.
- If fixed-wing planes are used, high wing types provide better visibility than low-wing types.
- Document all observations in writing and with photographs and/or videotapes.
- Describe the approximate oil slick dimensions based on available reference points (i.e. vessel, shoreline features, facilities, etc.). Use aircraft or vessel (if safe to do so) to traverse the length and width of the slick while timing each pass. Calculate the approximate size and area of the slick by multiplying speed and time.
- Record aerial observations on detailed maps.
- In the event of reduced visibility, such as dense fog or cloud cover, boats may be used for patrols and documenting the location and movements of the spill. Boats will only be used if safe conditions are present, including on-scene weather and product characteristics.
- Surveillance is also required during spill response operations in order to gauge effectiveness of response operations, to assist in locating skimmers and to continually assess size, movement and impact of spill.

Spill Volume Estimation & Methods

Early in a spill response, estimation of spill volume is required in order to:

- Report to agencies.
- Determine liquid recovery requirements.
- Assess manpower and equipment requirements.
- Determine disposal and interim storage requirements.
- In the event that actual spill volumes are not available, it may be necessary to estimate this volume (see flowchart)

Initial Estimates:

If available, information provided from the control center can be used to provide an initial estimate of the spill volume. The volume released should match the change in a cutoff inventory measurement.

Tanks:

If the leak source can be isolated to a tank, an initial leak volume estimate can be determined as:

Volume = the change in height of the tank x the volume per inch as found on the tank strapping table

Mainline Releases - An initial release volume can be calculated as:

Volume = (the mainline flow rate x the time to isolate) + the volume of drain-up from the release site to the next high point in the line

The volume release estimate can be verified by the mismatch in injection and delivery flow meters or tank volume change. In systems where ATMOS pipe is used for leak detection (i.e. gathering system), the estimated leak size is available in the user screen.

Land:

The following is a list of possible tools that can assist with determining a spill volume on land.

Transportation Spill to Land Estimation Tool
SCADA (Control Center calculation)
Tank Data Program

Leak on Land - Field Measurement:

To estimate the volume of a spill in a field location, the spill is segmented to a summation of area calculations. The volume of each area is calculated as the length x the width x the depth.

Conversions:

1 m3 = 6.29 bbls 1 ft3 = 0.178 bbls

1 in = 0.0254 meters 1inch = 0.0833 ft.

Water

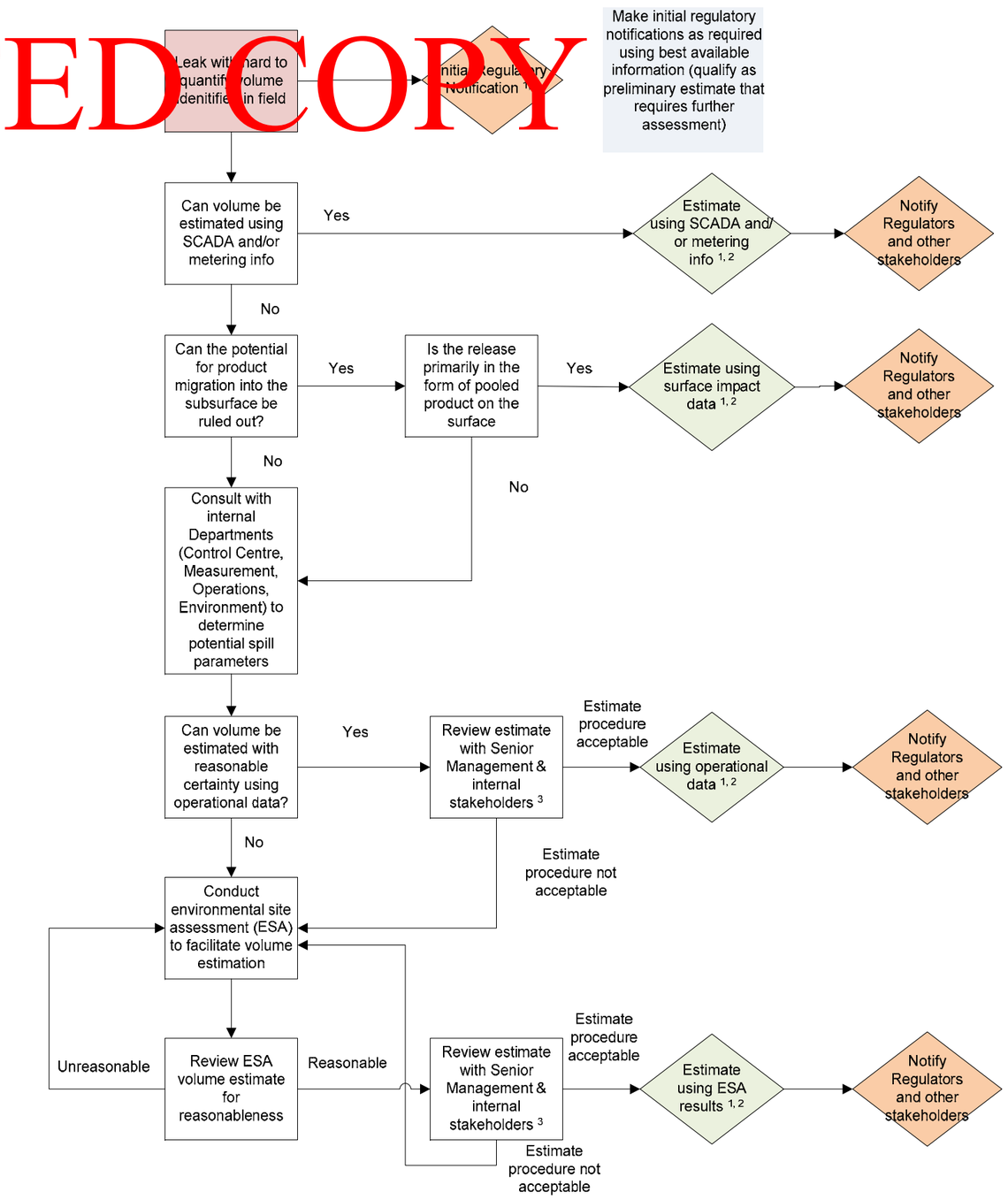
Visual observation and calibration with the A.P.I. Task Force on Oil Spill Cleanup, Committee for Air and Water Conservation's Spill Size Estimation Matrix Table. Methods which can be used to determine size and volume of a spill include, but are not limited to:

Vessel / line capacity formulas
Infra-red thermal imaging

Leak on Water - Visual Observation:

Using only visual observation to obtain an accurate volume estimate for a product on water is improbable. When possible, the estimate should be based on one of the above methods (i.e. tank or mainline release calculations with Control Center input). The National Oceanic and Atmospheric Administration (NOAA) does provide a job aid to assist with visually estimating the volume of a release on water, but it is more suitably used to subjectively characterize and describe the spill. It may be found at: http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/open-water-oil-identification-job-aid.html

Volume Estimates Flowchart



Notes:

1. Estimates must take uncertainties (such as extent of subsurface contamination, duration of leak, etc) into account.
2. In situations where there are significant uncertainties, it is preferable to estimate using a range (low case, likely case, and high case).
3. Internal stakeholders typically include Operations, Public & Government Affairs, Environment and Law.

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Estimating Spill Trajectories

Oil spill/NGL trajectories may initially be estimated in order to predict direction and speed of the slick movement. Trajectory calculations provide an estimate of where oil slicks may impact shorelines and other sensitive areas and provide an estimate of the most likely locations for protection, containment and recovery.

The following method may be used to predict spill movement:

- Computer trajectory modeling programs (including but not limited to):
  - World Oil Spill Model (WOSM)
  - OilMap
  - General NOAA Oil Modeling Environment (GNOME)

The Company will utilize internal subject matter leads (SML) with consultants as necessary to perform trajectory analysis and fate & effect

Input variables for proper modeling include, but are not limited to: · Spill location, volume, and time of spill. • Nature of the spill - continuous or single incident • Wind speed & direction. • Water movement (current) speed & direction. • Water temperature. • Atmospheric temperature. • Characteristics of spilled material	This information can be obtained from many sources, including but not limited to: · Reports from personnel at the spill site. • Commercial weather services. • NOAA. • Internal company databases. • Oil Map software.

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Product Volume Tracking

An estimate of the amount of product recovered. In order to provide relevant information, a uniform procedure for sampling, analyzing and calculating the amount of product recovered from remediation activities at the release location should be established for the site.

Product volume tracking requires identification of each waste stream. Examples of typical waste streams from an oil release include:

- Soil and/or sediment impacted by the hydrocarbon product (hazardous and non-hazardous)
- Debris (e.g. impacted sorbents, boom, pads, plastic, PPE, vegetation)
- Water (hazardous and non-hazardous)

A sampling protocol will be established for each waste stream and will include:

- Number of samples required per volume of waste generated
- Laboratory analysis required
- Data reporting requirements

In the case of a crude oil release, the data provided by the waste stream disposal contractors (e.g. volumes converted to mass) and the validated analytical results (Oil and Grease in mg/kg) may be used as a basis to calculate the amount of crude oil recovered per waste load. These calculations will be maintained in a "Daily Waste Load Summary" spreadsheet.

Oil Volume Calculation Table

Visual Color

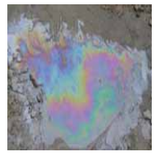
	Sheen (Silver Grey)	Rainbow	Metallic	Transitional	Dark (or True) Color		Sheen (Silver Grey)	Rainbow	Metallic	Transitional	Dark (or True) Color
											
	Sheen (Silver/Grey)	**Rainbow**	**Metallic**	**Transitional**	**Dark (or True)**		**Sheen (Silver/Grey)**	**Rainbow**	**Metallic**	**Transitional**	**Dark (or True) Color**
Approximate Thickness	0.04 to 0.3 um	0.3 to 5.0 um	5.0 to 50 um	50 to 200 um	>200 um	Approximate Thickness	1.6×10^{-5} to 1.2×10^{-5} inches	1.2×10^{-5} to 2.0×10^{-5} inches	2.0×10^{-4} to 2.0×10^{-3} inches	2.0×10^{-5} to 1.2×10^{-5} inches	8×10^{-3} inches
Area	**Volume (liters)**					**Area**	**Volume (gallons)**				
100 m2	0.004 to 0.03	0.03 to 0.5	0.5 to 5	5 to 20	>20	100 yd^2	0.003 to 0.007	0.007 to 0.11	0.11 to 1.1	1.1 to 4.4	>4.4
500 m2	0.02 to 0.15	0.15 to 2.5	2.5 to 25	25 to 100	>100	500 yd^2	0.013 to 0.03	0.03 to 0.56	0.56 to 5.6	5.6 to 22	>22
1,000 m2	0.04 to 0.3	0.3 to 5	5 to 50	50 to 200	>200	1,900 yd^2	0.026 to 0.07	0.07 to 1.1	1.1 to 11.1	11.1 to 44	>44
1,500 m2	0.06 to 0.45	0.45 to 7.5 ·	7.5 to 75	75 to 300	>300	1,500 yd^2	0.039 to 0.10	0.10 to 1.67	1.67 to 16.7	16.7 to 66	>66
2,000 m2	0.08 to 0.6	0. 6 to 10	10 to 100	100 to 400	>400	2,000 yd^2	0.052 to 0.14	o.14t o22	22 to 222	222 to 88	>88
3,000 m2	0.12 to 0.9	0.9 to 15	15 to 150	150 to 600	>600	3,000 yd^2	0.078 to 020	0.20 to 3.3	3.3 to 33.3	33.3 to 132	>132
5,000 m2	0.2 to 1.5	1.5 to 25	25 to 250	250 to 1000	>1000	5,000 yd^2	0.13 to 0.34	0.34 to 5.6	5.6 to 55.5	55.5 to 220	>220
10,000 m2	0.4 to 3	3 to 50	50 to 500	500 to 2000	>2000	10,000 yd^2	026 to 0.68	0.68 to 11.1	11.1 to111	111 to 440	>440
50,000 m2	2 to 15	15 to 250	250 to 2500	2500 to 10,000	>10,000	50,000 yd^2	1.3 to 3.4	3.4 to 55.5	55.5 to 555	555 to 2,200	>2,200
100,000 m2	4 to 30	30 to 500	500 to 5000	5000 to 20,000	>20,000	100,000 yd^2	2.6 to 6.8	6.8 to 111	111 to 1,110	1,110 to 4,400	>4,400
150,000 m2	6 to 45	45 to 750	750 to 7500	7500 to 30,000	>30,000	150,000 yd^2	3.9 to 102	10.2 to 167	167 to 1,665	1,665 to 6,600	>6,600
200,000 m2	8 to 60	60 to 1000	1000 to 10,000	10,000 to 40,000	>40,000	200,000 yd2	5.2 to 13.6	13.6 to 222	222 to 2,.220	2,220 to 8,800	>8,800
400,000 m2	16 to 120	120 to 2000	2000 to 20,000	20,000 to 80,000	>80,000	400,000 yd^2	10.4 to 272	272 to 444	444 to 4,440	4,440 to 17,600	>17,600
600,000 m2	24 to 180	180 to 3000	3000 to 30,000	30,000 to 120,000	>120,000	600,000 yd^2	15.6 to 40.8	40.8 to 666	666 to 6,66 0	6,660 to 26,400	>26,400
800,000 m2	32 to 240	240 to 4000	4000 to 40,000	40,000 to 160,000	>160,000	800,000 yd^2	20.8 to 54.4	54.4 to 888	888 to 8,880	8,880 to 35,200	>35,200
1,000,000 m2	40 to 300	300 to 5000	5000 to 50,000	50,000 to 200,000	>200,000	1,000,000 yd^2	26 to 68	68 to 1,110	1,110 to 11,100	11,100 to 44,000	>44,000

Table is based off of information in NOAA's *Open Water Oil Identification Job Aid for Aerial Observation*

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Discovery / Investigation

The Enbridge Responder will take action to mitigate the situation and prevent escalation if safe to do so. For the initial action it is important to remember:

- Don't try to control more area than can be effectively isolated and controlled ;
- The more time, distance and shielding between the Enbridge Responder and the released product, the lower the risk;
- Designate an emergency evacuation signal and identify muster points if emergency evacuation is necessary;
- Ensure appropriate PPE;
- Ensure compliance to safety and health policies for working alone
- Never permit response personnel to perform activities in areas where un-ignited gasses or vapors may accumulate; and
- Assess the hazards posed by the release (health, physical, chemical, other).

Immediately inform the Control Center and contact the QI/IC and provide a situation report. Assess the emergency level and activate the ICS based on need. The most qualified Enbridge Responder on scene will assume the role of IC and direct on-scene response activities until otherwise relieved.

Identifying NGL Releases

Indications of an NGL release include:

- Cloud of steam or mist (caused by condensation and freezing moisture);
- Ice buildup on exposed pipe, or frozen ground around an underground pipe;
- Brown vegetation (indicates soil saturation);
- Yellow-stained snow (may indicate NGL accumulation under the snow); and/or
- Odor (which is the condensate fraction of NGL).

Standard Safety Precautions

- Ensure proper documentation has been completed (Safe Work Permit, Field Level Hazard Assessment, etc.)

- Determine the wind direction and approach cautiously from upwind.
- Park vehicles upwind in vapor-free areas and on high ground, if possible.
- Shut down vehicles when not in use.
- Eliminate or shut off all potential ignition sources in the immediate area.
- Explore the suspected release area only when wearing appropriate PPE; explore on foot, using the buddy system if possible.
- Do not carry ignition sources.
- Do not attempt to walk in product releases or vapors.
- Maintain constant or scheduled communication "buddy" or back-up personnel.
- Use intrinsically safe equipment (e.g., flashlights, two-way radios, gas detectors with audible alarms).

Assess the site for potential impacts, for example:

- Electrical lines down or overhead.
- Unidentified visible liquid or solid products.
- Visible vapors.
- Odors or breathing hazards.
- Fire, sparks or other ignition sources.
- Holes, caverns, deep ditches, fast water or steep slopes nearby.
- Local traffic.
- Ground conditions (dry, wet or icy).

Standard Safety Precautions, cont.

There is no one single barrier that will effectively combine both chemical and thermal protection. Also any type and level of impermeable protective clothing creates the potential for heat stress injuries. Remember that PPE is the LAST line of defense. Enbridge responders have been seriously burned and injured because they did not use their protective clothing and equipment.

Flammable liquids and gases give off a tremendous amount of radiant heat. Responders need to be aware and protect exposed areas as appropriate. No attempt should be made to extinguish a flammable gas fire. Always control or isolate the source of the leak as best as possible. If the source can't be isolated, then attempt to reduce the operating pressure of the pipeline. Try and permit the fire to self-extinguish, if possible and consume any residual fuel that may remain inside or outside the pipeline.

In addition to the standard safety precautions, when exploring outdoors use a gas detector to determine the presence of vapors. Natural gas is odorless and colorless. However, even if there is no odor present or there is an odor, a dangerous concentration may be present.

A combustible gas indicator (CGI) or a gas flame ionization detector (FID) could be used to determine the flammability hazards. Most CGIs and flammable gas detectors are set to alarm at 10% of the LEL of the gas upon which the sensor is calibrated (approximately 4000 ppm). In the natural gas industry, virtually all CGIs and flammable gas sensors are calibrated on pentane.

Natural gas may follow disturbed soil and enter grade areas around the pipe or other venues. The flammability range of natural gas is 4% to 15% in air by volume. Controlling ignition sources is a priority. Some examples you may not have thought about are:

- Doorbells
- Flashlights
- Telephones
- Burglar Alarms
- Heating Systems
- Vehicles and Trucks
- Pagers
- Light Switches
- Garage Door Openers

Since natural gas is extremely flammable the following should be considered:

- With any leak, always anticipate and expect that ignition will occur;
- Natural gas released inside buildings presents one of the greatest flammable hazards to emergency responders. Buildings full of natural gas should only be approached when needed with extreme caution and with a minimum number of personnel;
- Natural Gas / Methane (UN1971) is lighter than air and will rise;
- Do not close main valves or any other large transmission or distribution valves. This can lead to serious problems elsewhere in the natural gas pipeline system;
- Upon ignition, vapors may burn back to the source of gas; therefore make sure source is controlled;
- Vapors may cause dizziness or asphyxiation;
- Establish an effective and safe perimeter;
- Position all response support out of danger zone;
- Secure the scene and deny entry;
- If necessary, evacuate the public to a safe distance;
- Monitor the atmosphere, using multiple monitors where possible;
- Monitor for gas traveling away from source toward exposures;
- Control ignition sources (smoking, open flames, vehicles, internal combustion engines and motors);
- Do not operate electric devices such as switches, etc. Sparks could cause ignition; and
- If safely possible, ventilate the area, keeping in mind that during this process, if the flammable atmosphere is above the UEL the gas may pass back through the flammable range of 4% to 15% gas to air.

Prompt and Effective Management of Release

Small Release

If the released NGL is creating a local safety hazard, the NGL may then be ignited following the procedure for igniting NGL (see below). Where available, water fog may be used to break up and disperse small vapor clouds. Fire monitors are also an effective method of providing air circulation in confined areas or in buildings. Ensure they are safe (intrinsically safe) to use in the environment.

Large Release

If the NGL release is large or the NGL batch cannot be pumped past the release site, ignite the NGL following the standard procedure.

If the vapor plume is moving toward a populated area the area will be evacuated. If the vapor cloud cannot be ignited and repair procedures must begin, all equipment and vehicles will be located a minimum of 0.5 mi (0.8 km) upwind of the leak site. Continuously monitor the perimeter of the vapor cloud to detect any shift in the vapor cloud.

Isolating the Pipeline Section

When NGL is escaping uncontrolled, the affected pipe section will be immediately isolated by closing the appropriate sectionalizing valves.

Relieving Pressure

Use one of the following methods to relieve pressure at a pipeline section releasing NGL:

- If NGL is present at the blowdown valve, install a pipe discharge line and flare the NGL
- Transfer the product to a properly rated pressure containment vessel
- Install a pump complete with a discharge check valve to pump across the downstream sectionalizing valve
- If elevation does not provide a standing head in the isolated section, a transfer pump connected to the blowdown valve will be needed to fill a properly rated pressure containment vessel

Evacuation/Site Security

Due to the high flammability of NGL and the possibility of a vapor plume forming, it may be necessary to evacuate workers and visitors from the area, and to secure the site to protect the public and property.

Digging out a Release Site

Repair operations involving NGL are difficult, slow and hazardous. Pockets of gas may be trapped in the ground. In addition, if NGL has been leaking for some time, the condensate portion may have saturated the soil for a considerable distance around the site. Before beginning excavation or line repairs, active NGL releases are ignited or left burning.

When digging out an NGL release site, the following methods will be used:

- Ensure liquid has replaced the NGL at the release site;
- Follow appropriate Company standards on pipeline excavation;
- Ensure fire extinguishing equipment is immediately at hand;
- Consider obtaining external firefighting services and equipment;
- If no wind is blowing, use air movers to keep air moving across the worksite and away from workers;
- Continuously monitor air using a gas detector; and
- Constantly monitor wind direction

Igniting an NGL Plume

Before ignition of an NGL plume:

- Ensure the area where people are congregating is and remains a Cold Zone by the use of gas detectors;
- Ensure proper permits for firearm and ignition if applicable;
- The area of the vapor plume is maintained clear of people and vehicles and people are prevented from going near the area;
- The potential impact on adjacent facilities is evaluated;
- Every attempt to obtain clearance from Regional Management and the municipal fire chief has been made;
- Stage fire extinguishers nearby;
- Review flare pistol safe handling procedures (jurisdictional firearm rules apply); and
- Confirm that the available pistol is in working order, verify the number of flares available and ensure that they are the correct type for the firearm.

If contact with the QI/IC cannot be obtained quickly (e.g. no cell phone communication in area or no definite answer given) and there is an immediate risk to the public, the Enbridge Responder or a designee trained in NGL ignition may proceed with ignition.

If applicable have local fire department on-scene prior to any attempt at ignition. Review the Ignition Decision Flowchart on the next page.

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Consider the Impact of Ignition on People, the Environment and Property

Assess as follows:

If the plume remains un-ignitied or the wind direction changes:

- ❑ Are the responders or the public at risk?
- ❑ Is there a greater potential for property and/or environmental damage due to accidental ignition or explosion?

No

Continuously review:

- ❑ Employee and public safety considerations.
- ❑ Existing site conditions and changes..
- ❑ Site control procedures.
- ❑ Monitoring of the Emergency Hazard Area.

Yes

Review pre-ignition considerations:

- ❑ Consider safer alternatives (i.e. close valves, ventilate, etc.)
- ❑ Assess the area/perimeter of impact
- ❑ Proximity to residences, public facilities, towns or urban centers.
- ❑ Status of evacuations.
- ❑ Wind conditions and general topography.
- ❑ The potential for changes in weather and its implications.
- ❑ Transition from daylight to night darkness.
- ❑ Fire hazard after ignition in relation to adjacent area.
- ❑ Safety of all personnel in the Hazard Area.
- ❑ The presence of other underground or overhead utilities.De-energize if possible
- ❑ Will the situation worsen by burning seals out of adjacent valves or by starting pumps on fire?
- ❑ Controlled depressurization at other locations in the damaged section will reduce down time.

IS IGNITION THE MOST FAVORABLE CONTROL POINTS OPTION TO MINIMIZE THE HAZARDS?

No

- ❑ Continue with release control procedures onsite.
- ❑ Review alternative control procedures.

Yes

- ❑ Is there time to discuss the ignition decision with Regional QI/IC, Regional On-Call or Supervisor?

No

Go to Ignition Procedures Flowchart.

Yes

- ❑ Review decision to Ignite with Regional QI/IC, On Call or Supervisor.
- ❑ Determine post-ignition emergency service requirements.
- ❑ Assemble and brief Ignition Team.
- ❑ Go to Figure 2: Ignition Procedure Flowchart.

Onsite personnel will coordinate and lead the safe igniton of gas release.

PREPLANNING

Prior to ignition the Operations Section Chief will:

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

APPROACH

Select a position to attempt safe ignition which will:

- ❑ Allow for safe retreat.
- ❑ Provide cover from the intial flash.
- ❑ Be upwind of the gas leak 250m (820 ft) minimum from edge of identified vapor plume for first attempt – this may be reduced in subsequent attempts as long as it is safe to move forward).
- ❑ Be in an area where no combustible gas is detected.
- ❑ Shoot for the outer edge of the cloud

ATTEMPT IGNITION

- ❑ Aim for the outer edge of plume. The center of the plume is too rich to ignite. Arcing shots or bounce shots can be used.
- ❑ Turn away from target to avoid heat flash.
- ❑ Lay down if possible to minimize percussion to body

PLUME IGNITED?

No

REPEAT IGNITION

- ❑ Continue approach inwards using short distances and repeat (as long as safe to do so) until successful. Do not go closer than 100m (330 ft) from plume.

Yes

POST IGNITION

- ❑ Advise Regional Management.
- ❑ Continue to monitor downwind for gas accumulations.
- ❑ Maintain security around immediate area.
- ❑ Assist emergency service crews with any fire control measures needed.

2.4.4.7 Enbridge Field Response Team Guide - Fire and Explosion

***Under no circumstances are Enbridge employees to engage in offensive fire-fighting tactics unless they are trained, certified, and have the correct PPE and firefighting equipment**

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FIRE RESPONSE STANDARD FIRES

1. Look or call for help.
2. Notify fire department.
3. Activate fire alarm, if one is available.
4. Implement Emergency Procedures and Evacuation Plan.
5. If safe to do so, shut off sources of fuel to fire and facility electricity and eliminate ignition sources.
6. Shut down pumping only if essential to fight or control the fire to stop a leak.
7. Report fire to the control center and initiate reporting.

FOAM SYSTEMS COMPRESSOR BUILDINGS

If one of the UV/IR fire detection sensors in the compressor building detects a fire:

1. An emergency shutdown (ESD) condition is triggered, which automatically shuts down any operating units, isolates the station from the mainline, and vents all gas from the station.
2. A warning horn sounds.
3. The fire pump starts, drawing water from the concrete tanks and mixing it with the liquid foaming agent.
4. Foam is pumped from the control building to the compressor building, where it is ejected through the foam heads in the ceiling, and continues until it runs out or the foam system is deactivated. Do not use water to extinguish fires in or close to

FACILITIES WITH CO2 FIXED SYSTEMS

When a fixed system is triggered, an audible pre-discharge signal sounds as a warning that the system will activate within 30 seconds. In compressor unit enclosures, where there is no delay or audible alarm, there is a visual indication that the CO2 system is
activated.

1. As soon as fire is detected or audible pre-discharge signal sounds, evacuate protected area.
2. If extinguishing system does not trigger automatically, manually activate

MAINLINE FIRES

1. Assess fire.
2. Initiate fire response:
   - if fire is small and in early stages, and it is safe to do so, attempt to extinguish it using multiple portable extinguishers simultaneously, including 150lb or 350lb wheeled unit.
   - if fire is large or fully involved:
     - follow standard fire response procedure
     - notify nearby tenants, landowners and businesses
     - build a fire break around perimeter of fire if possible
   - if fire is beside a pipeline and pipeline is not leaking, continue pumping to keep pipeline cool.

STATION YARD PIPING OR MANIFOLD FIRES

1. Follow standard fire response procedure.
2. Attempt to contain fire with earth dikes, water fog or foam blanket.
3. Ensure all ignition sources (e.g., electrical short circuits) have been isolated or
   eliminated.
4. Extinguish fire with foam or dry chemical extinguishers.
5. Cool hot pipes and tanks with water, if possible.

SUMP FIRES

1. Assess fire.
2. Initiate fire response:
   - if fire is small and in early stages, and it is safe to do so, attempt to extinguish it using dry chemical extinguishers
   - to keep fire from spreading or reigniting, use available water to cool adjacent facilities or sump metal
   - if fire is large or fully involved, follow standard fire response procedure
3. Isolate sump and close lid if possible.

NATURAL GAS FIRES

1. Follow standard fire response procedure.
2. Close appropriate valves to isolate pipe section.
3. Consider blowing down pressure at a safe location.
4. Let fire burn down.
5. Do not extinguish a fire involving natural gas until fire burns down, flow of gas can be stopped and there is no chance of re-ignition.

PCB FIRES

1. Evacuate and secure area.
2. Call fire department or HAZMAT representative.
3. Ensure power is off to equipment containing PCB (e.g., transformer or capacitor).
4. If fire is within an enclosed building, close air inlets/outlets and access to building ventilation system.
5. Assist fire fighters and/or HAZMAT officials in extinguishing fire.

DIESEL STORAGE TANK FIRES

1. If possible and safe to do so, isolate diesel tank by closing remote or manually operated valves.
2. Remove any combustible materials (e.g., timber, rags) located near fire.
3. Allow tank to burn itself out.
4. Keep other installations in the vicinity cool with water spray if possible.

TANK FIRES

1. Activate Alarm
2. Evacuate area.
3. Notify the control center.
4. Notify fire department, if applicable.
5. From a safe distance, assess type of fire.
6. Implement emergency procedures and evacuation plan.
7. Activate terminal Pre-Fire Plan for:
   - First Responder actions
   - local fire department contacts and equipment list
   - Safety Data Sheets (SDS)
   - tank fire and tank datasheets

- Respond accordingly to procedures outlined in the Pre-Fire Plans

VEHICLE FIRES

1. Sound facility alarm (if applicable).
2. Assess situation.
3. If fire is small and in early stages, and it is safe to do so, attempt to extinguish using dry chemical extinguishers. Otherwise, withdraw and secure area.

Flash Fire, Vapour Cloud Explosion, Pool Fire

HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames
CAUTION: All these products have a very low flash point: Use of water spray when fighting fire may be inefficient. For mixtures containing alcohol or polar solvent, alcohol- resistant foam may be more effective

1. Do not extinguish fire unless flow can be stopped and it is safe to do so
2. Keep unauthorized personnel away.
3. Use water in flooding quantities as fog. Solid streams of water may spread fire.
4. Cool all affected containers with flooding quantities of water.
5. Apply water from as far a distance as possible.
6. If fire becomes uncontrollable or container is exposed to direct flame - consider

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Wildfire 2.4.4.8

Actions Before/During a Wildfire:

- Follow FireSmart principals, continuously manage vegetation in and around facilities
- Identify evacuation staging areas in evacuation plans for use during a wildfire event
- Set up triggers for evacuation
- Establish air monitoring at all manned facilities impacted
- Ensure personnel are aware of evacuation alerts, evacuation routes and evacuation staging areas away from the wildfire.
- Identify methods of transportation for evacuation (air, ground, water)
- Obtain and maintain emergency contact lists
- Decrease the number of personnel onsite during a wildfire event
- Stay tuned to local media for updates on the wildfire conditions

Release Mitigation Actions

Actions that can be taken during a wild fire to mitigate a release include:

- Discussion required before shutting down the line(s) as the product movement can reduce the heat flux on the system
- Shutting down the lines, etc.
- Isolation of energized systems
- Reassess the need to further manage vegetation in and around the facilities and cut it back further if required
- Gain situational awareness of fire behavior, monitor fuel spread and wind direction to predict the how the hazard area may change
- Conduct fly-over patrol for fire behavior impact in coordination with local authorities and respecting any NOTAMs (notice to airmen)

Additional Notifications

- Safety Coordinator/Officer
- State/Provincial Wildfire and/or Forestry officials

Additional References

www.ready.gov/wildfires
www.firewise.org/wildfire-preparedness.aspx
www.redcross.org/prepare/disaster/wildfire
www.wildfire.alberta.ca/fire-smart-industry (see oil and gas)

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Earthquake 2.4.4.9

Actions During an Earthquake

If outside:

- Stay outside, do not enter a building
- Stay away from buildings, utility wires and fuel and gas lines
- If outside, stay away from the exterior walls of a building
- Once on the open, get down low (to avoid being knocked down by strong shaking) and stay there until the shaking stops

If in an vehicle:

- Stop as quickly and safely as possible
- Move your vehicle to the shoulder or curb, away from utility wires and under or overpasses
- Stay in the car and set the parking brake
- Turn on the radio for emergency broadcast information
- Watch for hazards created by the earthquake

If inside:

- Do not evacuate outside, stay where you are until the shaking stops
- "Drop, Cover and Hold On"
    - * DROP down onto your hands and knees
    - * COVER your head and neck
    - * HOLD ON to your shelter
- Do not get in a doorway as this doesn't provide protection from falling debris
- Stay away from glass and windows

Actions After an Earthquake

- Check for injuries, administer first aid if required and call for assistance
- Check for secondary hazards that may have resulted after the earthquake, keeping in mind aftershocks may strike at any time
- Extinguish small fires, shut of the water supply if broke pipes are leaking, shut off the electricity when damaged wiring threatens to spark fires, shut of the off the gas if you suspect a leak
- Assess Damage (establish a Damage Assessment Team). Access to buildings that have sustained structural damage should be prohibited until they can be assessed by a structural engineer.
- Evacuate building(s) when any of the above hazards are present or if there is structural damage

Release Mitigation Actions

The following actions could be taken during an earthquake to mitigate further damage:

- Isolate and/or shut down energized systems to anticipate aftershock and/or additional tremors
- Shutting down the lines, etc. (others from Geohazard group)

Additional Notifications

- Enbridge Geohazard Department
- Safety Coordinator/Officer
- Facility Integrity Department

Additional References

- Earthquake Monitoring System, USGS: www.earthquake.usgs.gov/monitoring/
- www.getprepared.gc.ca/cnt/hzd/rthqks-en.aspx
- www.fema.gov/earthquake-safety-home
- PI-97 Seismic Monitoring Procedure

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2.4.4.10 Enbridge Field Response Team Guide - Flooding

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Personnel Protective Actions

Prevent and mitigate damage to pipeline facilities and ensure public and environmental safety in areas affected by flooding:

Actions to Consider Before a Flood:

- Utilize experts in river flow, such as hydrologists or fluvial geomorphologists, to evaluate a river's potential for scour or channel migration at each pipeline river crossing
- Evaluate each pipeline crossing a river to determine the pipeline's installation method and determine if that method (and the pipeline's current condition) is sufficient to withstand the risks posed by anticipated flood conditions, river scour, or river channel migration. In areas prone to these conditions and risks, consider installing pipelines using horizontal directional drilling to help place pipelines below elevations of maximum scour and outside the limits of lateral channel migration.
- Determine the maximum flow or flooding conditions at rivers where pipeline integrity is at risk in the event of flooding (e.g., where scour can occur) and have contingency plans to shut down and isolate those pipelines when those conditions occur
- Evaluate the accessibility of pipeline facilities and components that may be in jeopardy, such as valve settings, which are needed to isolate water crossings or other sections of pipelines
- Preposition personnel and equipment in the event that emergency action is required including, shutdown, isolations or containment
- Extend regulator vents and relief stacks above the level of anticipated flooding as appropriate
- Coordinate with emergency and spill responders on pipeline locations, crossing conditions, and the commodities transported. Provide maps and other relevant information to such responders so they can develop appropriate response strategies

Actions to Consider During a Flood:

- Coordinate with other pipeline operators in flood areas and establish emergency response centers to act as a liaison for pipeline problems and solutions
- Deploy personnel so that they will be in position to shut down, isolate, contain, or perform any other emergency action on an affected pipeline
- Determine if facilities that are normally above ground (e.g., valves, regulators, relief sets, etc.) have become submerged and are in danger of being struck by vessels or debris and, if possible, mark such facilities with U.S. Coast Guard approval and an appropriate buoy
- Perform frequent patrols, including appropriate overflights, to evaluate right- of-way conditions at water crossings during flooding and after waters subside. Report any flooding, either localized or systemic, to integrity staff to determine if pipeline crossings may have been damaged or would be in imminent jeopardy from future flooding
- Have open communications with local and state officials to address their concerns regarding observed pipeline exposures, localized flooding, ice dams, debris dams, and extensive bank erosion that may affect the integrity of pipeline crossings

Asset Mitigation Actions

Actions that can be taken during a flooding event to mitigate a release include:

- Shutting down the lines, etc.
- Isolation of energized systems

Notifications

Notifications in addition to standard emergency notification procedure:

- Safety Coordinator/Officer
- GeoHazards Program representative

Additional References

www.getprepared.gc.ca/cnt/hzd/flds-en.aspx
www.ready.gov/floods
PHMSA Advisory Bulletin Volume 81, Number 11 issued Jan 18, 2016

Personnel Protective Actions

Actions to Consider After a Flood:

- Following floods, and when safe river access is first available, determine if flooding has exposed or undermined pipelines because of new river channel profiles. This is best done by a depth of cover survey
- Where appropriate, surveys of underwater pipe should include the use of visual inspection by divers or instrumented detection. Pipelines in recently flooded lands adjacent to rivers should also be evaluated to determine the remaining depth of cover. You should share information gathered by these surveys with affected landowners. Agricultural agencies may help to inform farmers of potential hazards from reduced cover over pipelines
- Ensure that line markers are still in place or are replaced in a timely manner. Notify contractors, highway departments, and others involved in post-flood restoration activities of the presence of pipelines and the risks posed by reduced cover

Site Control & Safety

ADDITIONAL FLODDING SAFETY

- Watch for high water, be aware of sudden changing water conditions and/or increased flow rates

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Tornado - 2.4.4.11

Actions Before/During a Tornado

- All employees must proceed immediately to the closest storm shelter. See building site maps and terminal evacuation map for shelter locations.
- If you are accompanied by visitors, bring them to your designated shelter.
- If you are caught outside with no shelter:
- * Lie flat in a nearby ditch or depression and cover your head with your hands. Be aware of the potential for flooding.
- * Do not get under an overpass or bridge. You are safer in a low, flat location.
- * Never try to outrun a tornado in urban or congested areas in a car or truck. Instead, leave the vehicle immediately for safe shelter.
- * Watch out for flying debris. Flying debris from tornados cause most fatalities and injuries.
- Consider the use of the emergency shutdown system for the terminals

Additional Notifications

- Facility Integrity Department
- Safety Coordinator/Officer

Actions After a Tornado

- Check for injuries, administer first aid if required and call for assistance
- Check for secondary hazards that may have resulted after the tornado
- Extinguish small fires, shut of the water supply if broke pipes are leaking, shut off the electricity when damage wiring threaten to spark fires, shut of the off the gas if you suspect a leak
- Evacuate the building when any of the above hazards are present or if there is structural damage

Asset Mitigation Actions

Actions that can be taken during a tornado to mitigate a release include:

- Shutting down the lines, etc.
- Isolation of energized systems

Additional References

www.ready.gov/tornados
www.redcross.org/prepare/disaster/tornado
www.getprepared.gc.ca/cnt/hzd/trnfs-en.aspx

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2.4.4.12 Bomb and Security Threats

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Security Classification

Security information is received from multiple sources. They include employees, industry, public, local policing, provincial/state, federal organizations, This intelligence, normally delivered via phone, email, mail and/or media channels is to be assessed by the Enterprise Security. Once information is examined, subsequent advisories or notifications are issued globally or to the regions affected.

Level 1 Security provides guidelines on minimum requirements for facilities. These include access control, fencing, gates, security guards, employee awareness, communications, facility lighting, intrusion detection, closed-circuit video and general policies/practices.

Level 2 Security provides direction in the event security measures require elevating. Changes typically include tighter perimeter control, visitor restrictions and increased perimeter checks.

Level 3 Security provides direction in the event that security measures require elevation based on a credible, imminent threat. Changes typically include Level 2 Security plus further personnel and vehicle restrictions, the use of security guards, more frequent and random perimeter checks, work restrictions and potentially operational restrictions.

Although most anonymous security threats are hoaxes intended to create an atmosphere of anxiety and panic in order to interrupt normal operational activities, all threats must be taken seriously.

Suspicious Activities

If any of the following are observed at company facilities, immediately notify the regional management/on-call person:

- Unknown personnel;
- Unidentified vehicles or vehicles operated out of the ordinary;
- Abandoned parcels or packages; and/or
- Suspicious activities (e.g., loitering).

Initial Response

Based on the threat assessment, consider the following initial response options:

- General facility evacuation (i.e., if the threat is confirmed or considered credible and serious).
- Do not evacuate (i.e., if the threat is considered a hoax and not credible).

Bomb Explosion, Confirmed or Credible Threat cont.

Bomb Threat Received by Hand Written Note (In addition to above procedures)

- Contact Supervisor immediately
- Handle note as minimally as possible.

Bomb Threat Received by E-Mail (In addition to above procedures)

- Contact Supervisor immediately
- Do not delete the message.

Protestors

Protestors

Do not approach protestors if they seem angry or violent in any way. When dealing with protestors:

- Show concern for their cause.
- Be cordial.
- Be empathetic.
- Advise them they will receive a quick response.

Maintain crowd control using either onsite security officers, or if necessary, police intervention. If safe, speak to the group leader to gather information about the protestors. Share information with police as appropriate. Before issuing an initial response statement, wait for direction from Public Affairs.

Bomb Explosion, Confirmed or Credible Threat

If (a) there is a bomb explosion, or (b) a security threat is confirmed or considered credible and serious, the regional management/on-call person is responsible to:

- Be pro-active and activate ICS.
- Evacuate workers and visitors from the area according to the regional Emergency Procedures and Evacuation Plan.
- Secure the area to ensure the safety of workers, visitors, and the public.
- If firefighting or other medical response becomes necessary, activate the ICS and mobilize response personnel and equipment.

The Company has developed procedures to be used in responding to bomb threats, identifying strangers in the work place, or other suspicious communications, some of which may be related to acts of terrorism or abductions.

Bomb Threat Call Procedures

Bomb threats or warnings will usually be given by telephone; anyone on site could receive such a call. The individual receiving the bomb threat should obtain as much information as possible. The use of the Bomb Threat Information Form is highly recommended. (See Section 4 – Forms)

- The person receiving the call should, if possible, attempt to have someone else notify a supervisor while the bomb threat call is in progress.
- Remain calm; Keep the caller on the line for as long as possible. Try to keep the caller talking to learn more information. DO NOT HANG UP, even if the caller does.
- Listen carefully, be polite, and show interest.
- If your phone has a display, copy the number and/or letters from the display.
- Once the caller has terminated the call; DO NOT HANG UP, but from a different phone contact the supervisor immediately with information and await instructions.
- The supervisor will notify local authorities and company management. Police will want to speak with the person who received the call directly, thus should remain available to provide details to police.
- Secure access and evacuate the facility until the local authorities have cleared the facility for re-entry.
- A complete written record of each incident shall be retained by the supervisor and any photographs or physical evidence shall be preserved until further disposition of the incident by the company.
- The supervisor should ensure that a follow up investigation into the incident has been conducted and appropriate additional security measures, if any, have been established and any identified issues have been resolved.

Unconfirmed Threat

If unable to confirm a security threat, the Regional Management/on-call person is responsible to advise employees, the police and the Control Center, and return to normal operations.

Suspicious Package

If a threat is received in the mail, (a) place all letters and envelopes associated with the mail in a bag or large envelope, and (b) immediately notify the management/on-call person and local law enforcement.

Indicators of suspicious mail/packages might include:

- No return address, or a return address that does not make sense;
- Unusual rigidity, bulk, or irregularity;
- Handwritten or poorly typed addresses or labels;
- Peculiar odors, especially sweet smells;
- Excessive binding, taping, or tying material;
- Excess postage, lack of postage, or un-canceled postage;
- Mismatching postmark and return address;
- Foreign writing, address, or postage;
- Incorrect spelling of common names, titles, or places;
- Leaks or stains; and/or
- Protruding wires, string, or tape.

If suspicious mail/package is received in the mail or observed at company facilities:

- Immediately notify management/on-call person who in turn should notify local law enforcement.
- Leave the suspicious package in its present location.
- Do not open or physically handle the package, or allow anyone to touch or move the package.
- Do not use two-way radios and cellular telephones within 300 feet of the package.
- Do not cover the package.

Threat Assessment

Upon notification of a bomb threat or other security threat, the Regional Management/on-call person is responsible for:

- Assessing the seriousness of the threat;
- Determining the appropriate level of response;
- Ensuring the police have been alerted;
- To assess the seriousness of a threat, consider:
  - Is the information credible (e.g., identity of the caller, likelihood of facility access to place the explosive device)?
  - Is the information corroborated (e.g., were suspicious activities or personnel observed)?
  - Is the threat specific (e.g., detonation time, location, type of explosive device, intended target)?
  - What are the potential consequences?

Procedures

- Person in Charge – Call 911 and activate fire alarm.
- Eliminate all ignition sources.
- Begin Emergency Shut-Down if necessary.
- If person(s) down, refer to Medical Emergency Checklist.
- When fire is noticed at any facility, secure the source if safe to do so.
- Account for all personnel in the unit or area where the fire occurred.
- Evacuate all non-essential personnel, if necessary.
- Establish communications. Contact PIC.
- Search for and rescue missing or injured personnel as directed by appropriate authority.
- Use the buddy system.
- Ensure the Facility Operators control the process.
- Conduct air monitoring to ensure safety of personnel and appropriate PPE is required to respond. (For additional information, see the Site Safety and Health Plan and/or the Safety Coordinator.)
- Conduct initial firefighting by personnel (trained in the use of firefighting equipment and PPE), which may include use of monitors, deluge systems, and portable fire extinguishers.
- Coordinate evacuation of nearby residents with local responders.

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2.4.4.13 Radioactive Source Emergencies

In the event of an accident (e.g. fire, explosion), damage or any other incident that may affect the integrity of a radiation source (e.g. nuclear densitometers, either portable or fixed):

- Stop all activity in the immediate area
- Evacuate the immediate vicinity of the source head and clear personnel within a 6 meter radius perimeter around the source head
- Notify local Operations personnel and/or call the 24-hour emergency number shown on the warning sign
- Do not allow workers to re-enter the area until a radiation survey is completed by a radiation specialist
- If the device has sustained physical damage, contact a radiation specialist to leak test the device
- Follow company procedures for required initial notifications
- Notify the CNSC 24 hour Duty Officer and inform them of the incident at 613-996-0479.

2.4.5 Volunteer Plan

Normally, the Company will not hire and/or train volunteers for work on an oil spill response incident. Consequently, the Company will refer volunteers to appropriate provincial/state and/or local agencies or organizations that are set up to handle volunteers.

If the scale of the incident requires, the Company will confirm status of volunteer use under provincial/states legislation as some jurisdictions afford the same protections and regulations to volunteers as workers under Labour codes and regulations as volunteers are the responsibility of the company and as such are to be afforded the same level of health and safety training, tools and protective equipment in accordance with provincial/states legislation.

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2.4.6 Environmental Response

This section provides key information related to environmental response activities associated with an emergency response to a release. The discovery of a historical release (i.e. a release that occurred in the past that is not considered to be a new or ongoing release) may result in the need to initiate some or all of the activities described in the following sections of this Environmental Response section.

As a precaution, the Company's Environment Department should ensure the Federal and Provincial/State Environmental Regulatory Agencies have been contacted.

In the event of a release that requires an environmental response, the Environment Unit Leader ("ENVL") will immediately mobilize a preferred environmental consultant or consultants if necessary. The Company's Environment Department will staff the Environment Unit within the ICS organizational structure and at a minimum manage the following environmental related response activities:

- Spills to groundwater
- Monitoring / sampling activities
- Wildlife management
- Natural Resource Damage Assessment
- Environmental compliance
- Environmental documentation
- Site investigation and remediation
- Waste management.

2.4.6.1 Spills to Groundwater

Spills to bare ground may initially spread laterally on the surface and then begin migrating downward through the soil and, depending on a variety of factors and circumstances, could reach groundwater. During vertical migration, the spill may spread laterally to some degree and a portion of the oil may be absorbed by the soil particles or become trapped in small pores eventually immobilizing the spill.

In general, oil may continue migrating downward until:	
✓	Residual saturation is reached (all of the oil is absorbed by the soil)
✓	Impenetrable layer (silt, clay, sandstone, rock) is encountered
✓	Groundwater is reached.

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If a spill does reach groundwater, the oil may begin to spread radially but preferentially in the direction of groundwater flow. In general, the following behaviors may occur:

- For higher groundwater velocities, a narrow plume elongated in the direction of groundwater flow may form; and/or
- For lower groundwater velocities the plume may broaden and assume a more circular pattern.

The timeline for this process may be days to months to years, depending on the circumstances of the spill, site specific hydrogeology, and remedial action taken.

The thickness of the plume or layer of oil may decrease with distance from the source. As with vertical migration, a portion of the oil may adhere to soil particles and become trapped in small or water filled pores eventually becoming immobilized.

Response Actions

In the event of a spill to bare ground, there are a number of actions that should be taken to assess the spill and, if groundwater is impacted, initiate recovery and limit the extent of impact. If a response is likely to have groundwater impacts, the Environmental Unit should implement a sampling/monitoring plan to check for impacts and provide Operations with possible response/remediation actions.

Containment and Recovery

Rapid and efficient containment and recovery of free product reduces the potential for impacts to groundwater or other environmental receptors.

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Groundwater Impact Potential

Once the initial assessment is completed, the potential for the spill to impact underlying groundwater should be determined and generally requires some knowledge of the local hydrogeology including soil type/permeability and depth to groundwater, and groundwater flow direction. The common factors, along with selected examples, that contribute to a spill having a higher potential to impact groundwater are:

Higher Potential	
✓	Shallow Groundwater (generally <20 ft/6 m)
✓	Low Viscosity Oil (gasoline)
✓	Dry Soil with Low Oil Retention Capacity
✓	Highly Permeable Soils (sand, gravel, coarse grained mixed sediment)
✓	Large Volume of Groundwater
✓	Pooled Oil (creates hydraulic head that enhances penetration)
✓	Response Time (several hours before pooled oil recovery begins).

Supplemental Assessment

If the potential exists for a spill to reach groundwater, additional assessment activities should be conducted to confirm if groundwater has been impacted and, if so, assess the extent of impacts. The Company's Environment Unit will work with third party Environmental Consultants to conduct subsequent assessment activities and characterize any impacts.

These activities commonly include:	
✓	**Backhoes or Excavators** – excavate pits/trenches to determine penetration depth/groundwater impacts (limited to depths of 10–20 ft / 3-6 m)
✓	**Hand or Power Augers** – install borings to collect soil/water samples and which can also be used to install temporary wells (often limited to 15-30 ft / 4-9 m)
✓	**Direct Push Drilling Rigs –** install borings to collect soil/water samples and which can also be used to install temporary wells (often limited to 50-100 ft / 15-30 m)
✓	**Hollow Stem Auger ("HAS") or rotary drill rigs -** install borings to collect soil samples and wells for groundwater samples (limited to 100-500 ft / 30-150 m .).

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The method used often depends on equipment availability, depth to groundwater and access to the spill area. For areas with shallow groundwater and good access, backhoes or excavators are often the most expedient means of determining penetration depth and groundwater impacts. If access is limited, such as in many tank farms, hand or power augers can be used to advance borings and collect samples. Direct push (Geo-probe) rigs can get into many areas but are generally truck mounted and will need road access. For areas with good access and where groundwater is deeper, hollow stem augers or rotary drill rigs are often the best equipment for subsequent assessment.

If groundwater impacts are confirmed or expected, additional sample points or wells should be installed by stepping out laterally from the spill area until the groundwater impact area is delineated.

It is important to note that if intrusive activities (excavation, drilling, hand augers, etc.) are necessary, additional air monitoring of the excavation and breathing zone around the activities should be conducted to ensure additional hazards are not created by the activities. In addition, if excavation activities are conducted and it is necessary for workers to enter the excavation, confined space permitting and/or shoring regulations may apply.

Care must be taken during the groundwater assessment not to create additional pathways for impact movement. The Environment Unit and third party Environmental Consultants will determine appropriate assessment methods and locations.

Recovery/Remediation

In the event a spill does reach groundwater, recovery or remediation activities may need to be conducted to mitigate the impacts. The impacts could be limited to low concentrations of hydrocarbons that have dissolved into the groundwater or, for larger spills, involve a layer of oil/product floating (separate, or non-aqueous, phase hydrocarbons) on the groundwater surface accompanied by elevated concentrations of dissolved (aqueous phase) hydrocarbons in the groundwater.

Common groundwater remediation techniques include:	
✓	Pump and Treat
✓	Excavation
✓	Bio-remediation
✓	Air Sparging/Vapor Extraction
✓	In-Situ Oxidation
✓	Monitoring Natural Attenuation

Selection of the most appropriate remediation technique will depend on a number of factors including product type, soil type, depth to groundwater, access, extent of impacts, current groundwater use, etc. The Company will utilize experienced remediation contractors to select and implement the most appropriate remediation technique(s)

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2.4.6.2 Monitoring/Sampling Activities

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Air Monitoring & Groundwater

In defining an acceptable response to a spill incident, it is necessary to know certain physical and chemical characteristics of the spill material. If positive identification of the spilled material can be made without testing, product data may be obtained from a SDS found in Section 2.11.10, product specification information, and/or records of product physical and chemical properties.

Occasionally a spill may occur in which the spilled material is not readily identifiable. Typically, laboratory analytical data for spill event samples will not be instantaneously available during an emergency. Therefore, it is necessary and desirable to field-categorize oils as the product reacts and changes in the environment. Although varying widely in physical and chemical properties, oil products have common basic features that permit their grouping for predictive evaluation of environmental effects and determination of control actions. In addition, as petroleum products react and change (e.g., weather) when exposed to the environment, the laboratory data may not be representative of "real-time" conditions; rather the data may instead reflect the chemical characteristics of the spilled material(s) at the time of sample collection.

Monitoring of the following media may be required, depending on the nature and location of the release:

- Air
- Surface water
- Groundwater
- Sediment
- Soil.

Air Monitoring

Air monitoring will assess real-time hydrocarbon related compound concentrations and background air quality conditions as needed.

- A site action level will trigger the collection of confirmation analytical testing.
- Real time air monitoring

Groundwater

Groundwater samples will be collected as necessary from onsite public and private wells (residential, public utility, commercial and industrial) within a specified potential receptor zone around the site.

- State, province or county databases will be used to identify wells.
- Ground survey may also be conducted to ensure all area wells are identified.
- Groundwater samples will be analyzed for laboratory and field parameters that will be determined on a site specific basis.

Surface Water and Sediment

Surface Water

Surface water sampling and monitoring procedures will be utilized to assess visible product and/or hydrocarbon sheen that may affect navigable waterways as well as to document background conditions within the waterways.

- Surface water samples will be collected periodically at each sample location to establish concentration changes over time.
- Surface water samples will be collected at various depths within the water column periodically at each sample location to establish concentration changes over time.
- GPS coordinates will be collected for sample locations to assist in re-sampling.
- Location and frequency of the sample collection activities will be determined on a site-specific basis.
- Surface water samples will be analyzed for laboratory and field parameters that will be determined on a site specific basis.

Sediment

Sediment samples will be collected periodically to provide a baseline evaluation of current conditions and confirm the presence or absence of hydrocarbon impacts.

- Sample locations will be selected in the field based on topography, erosion features, water depth, water velocity and other indicators of sediment deposition.
- GPS coordinates will be collected for sample locations to assist in re-sampling.
- Shallow sediment samples (e.g. 0 to 2", approximately 50-mm depth) will generally be collected from areas of low potential for sediment deposition (i.e. straight, narrow and/or swiftly moving waterways).
- Deeper sediment samples (e.g. 0 to 6", approximately 150 mm depth) would generally be collected at locations with a high potential for sediment deposition (i.e. meandering, broad, and/or slowly moving waterways).
- Sediment samples will be analyzed for laboratory and field parameters that will be determined on a site specific basis.

Oil Sampling Procedures

Oil Sampling Procedures

The following is a list of procedures to follow when obtaining an oil sample:

- Always wear latex or rubber gloves when taking samples. This protects the sample from your hands and your hands from the sample.
- Use a laboratory supplied clear glass jar for sampling. Four or six-ounce jars are sufficient. Dip or lower the jar (using string if necessary) into the oil or oily water at about a 30° angle. This may allow more oil and less water to flow over the lip of the jar. Do not fill the jar more than 2/3 full.
- If sampling a small amount of light oil, such as a sheen, the oil can be collected more easily using a Teflon strip or sorbent pad that is transferred to a sample jar. Do not use anything containing organic fibers such as rag, cotton, cheesecloth, etc.; these may contaminate the sample, thus, giving improper analysis results.
- Decanting the water may be necessary to get enough oil for analysis. To decant, fasten the lid on securely and turn the jar over allowing the water to settle towards the lid. Then unscrew the lid just enough to allow the excess water to slowly escape.
- Fasten the lid after lining it with aluminum foil or Teflon to obtain a good seal.
- Affix the documentation label to the jar after wiping it clean and dry for the label to adhere. The label should identify the following information:
  - Date and time of sampling
  - Source/location of sample (be specific and include GPS coordinates)
  - Name of person who took the sample
  - Sample designation using a sequential numbering or lettering system
- Samples should be delivered to a laboratory immediately for analysis. If samples cannot be delivered immediately, they should be temporarily stored in a refrigerator or a cool dark place since exposure to heat and light could affect the analysis. Samples should be transported in waterproof containers or wrapped in enough sorbent material to soak up the entire contents of the jar in case of leakage or breakage.

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2.4.6.3 Wildlife Management

In the event of a release where impacts to wildlife are present or expected, the Environment Unit will immediately mobilize a preferred wildlife response consultant or consultants.

The following actions should be taken to minimize or prevent additional damages to wildlife:

- Immediately secure the release area and install appropriate wildlife deterrence measures to discourage wildlife access to the site;
- Conduct an initial assessment of wildlife and wildlife habitat in the area of the release to establish the potential for wildlife impacts;
- Avoid collecting any dead or injured wildlife in the impacted (oiled) areas until the wildlife response team arrives unless it impedes operations or is a threat to human health and safety. However, if there is concern that injured or deceased wildlife might attract scavenging or predatory wildlife to the impacted areas, consult with the Environmental Unit for a proper and authorized course of action.; and
- Contact the appropriate regulating authority. Wildlife rescue and rehabilitation can only be conducted with appropriate permits and under the direction of the ENVL.

A site specific wildlife management and response plan may be developed for the site. The plan may include, but is not limited to:

- Additional wildlife deterrence strategies.
- Wildlife response permitting and approval requirements.
- Wildlife assessment procedures.
- Wildlife capture and collection procedures.
- Wildlife cleaning and rehabilitation procedures.
- Documentation protocols.

Dead and injured wildlife found during response operations must be collected by trained and authorized personnel and properly documented. An inventory of dead, injured, rehabilitated and released wildlife needs to be maintained as a component of the Natural Resources Damage Assessment in the U.S.

2.4.6.4 Natural Resource Damage Assessment

Under the provision of CERCLA, the Oil Pollution Act of 1990, and numerous state statutes, cost recovery can be obtained from industry for natural resource damage caused by the release of oil or hazardous substances to the environment. Natural resources are defined as land, air, biota, groundwater, and surface water. A Federal or State government entity, Indigenous groups or another nation acting as a public trustee of a natural resource may file claims for damages to natural resources.

An assessment is often conducted by a third party used to determine damages for residual natural resource injuries. This assessment is often conducted by the public Trustee, the potential responsible party or both. During the assessment, the injured natural resources are

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identified, the extent of the injury is quantified and the extent of the economic damage resulting from the loss of services provided by the resources is determined. In addition, the assessment also determines the cost of restoration or replacement of the injured natural resource.

The assessment contains injury to natural resources and the loss of "services" (i.e., physical and biological functions provided by the resources) as a result of the petroleum release. If issues are anticipated, the type and condition of the natural resources before being impacted by the release will be determined by collecting soil and water samples as soon after the release as possible. These samples should be collected from areas that are threatened by spreading product, areas recently impacted by the product, and in the area of the release. Listed below, in descending order of importance, are locations typically sampled after a hydrocarbon release:

- River reaches immediately downstream (ahead) of the product plume (water and sediment samples).
- Wetlands and backwaters adjacent to and downstream of the product plume.
- Areas freshly affected by the release.
- The area adjacent to the release location (source area samples).
- Upstream areas unaffected by the release.

Over the course of the response actions, the above locations may be re-sampled to evaluate the following:

- Changing extent and severity of impacts.
- Fate and degradation of the hydrocarbon product over time.
- Changing site conditions.

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2.4.6.5 Environmental Compliance

Environmental compliance includes, but is not limited to, preparing and submitting permit applications and completing associated field inspections. Permits and other compliance requirements that may be required during a release response may include but are not limited to:

- Permit applications to discharge treated water, trench dewatering, stormwater impacted by construction activities in some states, and/or hydro-test water.
- Applicable Wetland plans and permits.
- Joint Permit Application for wetland disturbances.
- Air Emissions Inventory and Air Permit.
- Local Authority Soil Erosion and Sediment Control Permit and associated inspections.
- Local Authority - Road and Drain Permits.
- Wildlife Research and Collection Permit.
- Wildlife Rehabilitation Permit.
- Application of the "Recovered Oil" vs. "Recovered Fuel" exemptions or exclusions.
- Clean Water Act emergency response actions.
- Permits for disturbance of areas outside of existing ROW.
- Other permits or approvals as necessary based on event circumstances.

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Additional permitting or regulatory compliance requirements will be determined based on the regulatory jurisdiction and specific circumstances of the release.

2.4.6.6 Environmental Documentation

In addition to the general documentation activities listed in Section 2.0, Environmental documentation activities also include: collecting and retaining site records; initial site survey; preparation of site figures; and preliminary reporting. Site Records include:

- Field notebooks;
- Daily weather conditions (include wind direction and speed); and
- Initial release information including initial site survey:
    - Incident characteristics, product properties, extent of impacts, and site conditions
    - Protection Priorities for natural resources
    - Natural Resources that are affected or threatened by the release Wildlife injury and impacts
    - Sample locations and access areas

Regulatory Communication

- Records of all notifications should include: time, date, agency, telephone number, individual contacted, and a summary of the conversation.
- Establish and distribute a general Enbridge email account to be copied on all emails to Federal, State/provincial and local regulators.
- Maintain a log of on-site agency personnel.

Photos

- Include a description of the site and the cardinal direction the photographer is facing when the photograph was taken. Photographs taken with a camera equipped with or synchronized to a GPS are preferred.

Laboratory Data

- Establish a standard protocol for sample naming at the onset of the response (e.g. Sampling and Analysis Plan).
- Establish quality assurance (“QA”) and quality control (“QC”) objectives.
- Includes Chain of Custody and laboratory reports.
- Collect and maintain post-processed GPS data of sample locations.

Site information to produce early in the project may include:

- Site/Release Location and Site Access (i.e. release location, extent of visual impacts, access roads, boat launches, boom deployment areas, safety zones, sign-in and security gates).
- Receptor Survey (may include: residential, commercial and industrial wells, residences, surface water intakes, and threatened and endangered species).

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Preliminary reporting activities may include:

- Estimated volume of release
- Response activities
- Data presentation.

2.4.6.7 Site Investigation and Remediation

Site investigations will generally include determining the horizontal and vertical extent of the impacts. Equipment used to complete site investigation activities may include hand tools, drilling equipment and earth-moving equipment. Soil sampling for field screening and laboratory analysis may also be required.

Based on the results of the site investigation, a site specific remedial action plan may be prepared to address the impacts. The remedial action plan may include:

- Description of impacted areas
- Remediation criteria and end points
- Remediation methodology
- Approvals and permits required for remediation
- Site reclamation methodology.

2.4.7 Waste and Disposal

The management of the wastes generated in clean-up and recovery activities must be conducted with the following overall objectives:

Overall Objectives	
✓	Worker Safety
✓	Waste Minimization
✓	Minimization of Environmental Impacts
✓	Proper Disposal
✓	Minimization of present and future environmental liability

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2.4.7.1 Waste Management and Disposal Plan

The ENVL may develop a site specific waste management and disposal plan including procedures for the proper storage, characterization, treatment, disposal, and record-keeping of hydrocarbon impacted soil, water and investigation-derived waste.

Standard Operating Procedures ("SOPs") should be established within the site specific waste management and disposal plan and may include, but are not limited to:

- Maintaining a waste management hotline to provide a resource for contractors for larger releases that have multiple staging or waste accumulation areas.
- Establishing uniform procedures for segregation of waste and proper disposal of non-regulated and regulated solid waste.
- Providing guidance on waste sampling activities.
- Staging areas and temporary storage requirements.
- Waste manifesting and record keeping requirements.
- Site specific disposal plan for each waste stream.
- Handling and personnel safety requirements for different waste streams

To minimize handling of waste materials suitable and sufficient containers will be used.. Waste streams will be segregated based on their physical characteristics and disposal requirements. New waste will not be combined with waste previously characterized and designated for disposal unless directed to do so by the ENVL. Waste suitable for product recovery or remediation will be kept separate from other waste.

Wastes will be transported from the collection site to designated secure areas (lined, bermed temporary storage areas, lined pits, or tanks) for storage, segregation, characterization, permitting, and packaging. Once this process is complete, the waste will be transported to an approved facility for required disposal or recycling.

Oil will be recovered and processed for re-use or disposal as appropriate. Water recovered may be disposed of or treated as per local requirements.

Transportation of waste from the release site will comply with applicable government regulations. Any waste or recovered product removed from a release site will be properly documented The ENVL, in consultation with the IC, will establish appropriate procedures for waste tracking and transportation.

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The following steps will be taken prior to transporting wastes for disposal:

- Waste characterization is complete and accurate;
- Waste manifests are complete;
- Procedures for tracking waste volumes and product recovery are in place;
- Regulations are being met for transportation (e.g., placards are available and in place and carrier is registered, manifest completed, etc.); and
- Transport equipment is suitable for materials being transported (e.g., sealed bins/end gates, adequate tarps, tank trucks suitable for liquids, and drivers have adequate training).

Waste disposal methods vary depending on the type of waste, release location, regulatory requirements, etc. These disposal options will be dependent upon laboratory analysis per current Federal, Provincial, State and local regulation.

Disposal options may consider remediation techniques such as the following to help minimize waste volumes and recover resources (soil, water, oil):

- Phase separation (gravity, centrifuge)
- Bioremediation
- Thermal desorption
- In-situ burning
- Chemical oxidation
- Water treatment (chemical treatment, filtering).

In the U.S. the Company has contracted with USCG Certified third party contractors for each ICP Geographical Response Zone (or Region). In Canada the Company would use the services of a spill cooperative. Contact information and response capability for each third party contractor can be found in that particular ICP Geographical *Annex 2*.

The third party contractors that Enbridge has signed contracts with in each Geographical Response Zone are capable of being on site and ensuring planned temporary storage and waste disposal activities are accomplished within the appropriate response times. They will provide sufficient temporary storage to ensure sufficient capacity is available to respond to a significant release, or a Worst Case Discharge (“WCD”) in the U.S.

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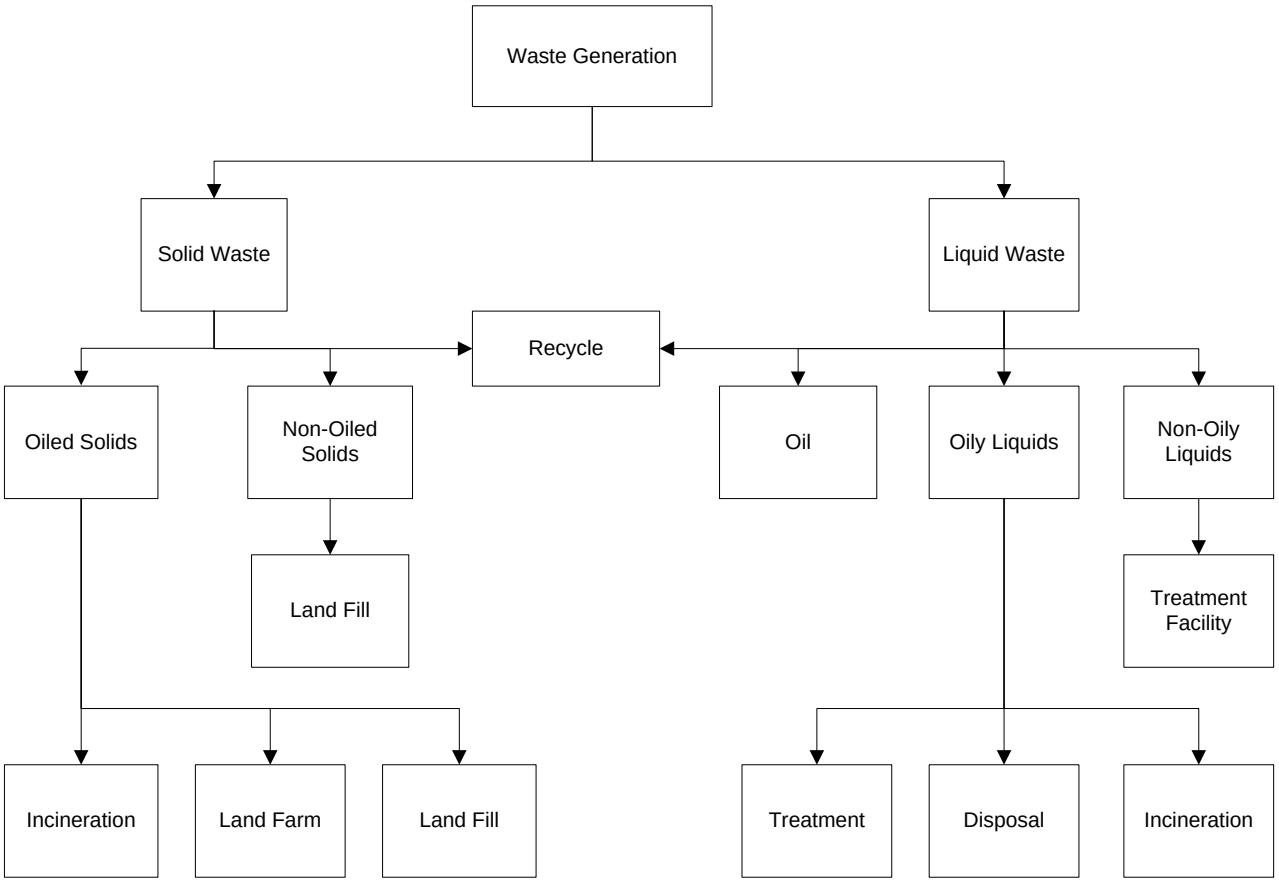
General flowchart for Waste Management Guidelines



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Temporary Storage Methods

PRODUCT								
Containment	OIL	OIL/WATER	OIL/SOIL	OIL/DEBRIS (Small)	OIL/DEBRIS (Medium)	OIL/DEBRIS (Large)	Capacity (Imperial)	Capacity (Metric)
Drums		X	X	X			.2-.5 yd^3	0.15 - .38 m^3
Bags			X	X	X		1-2 yd^3	0.76 – 1.52 m^3
Boxes			X	X	X		1-5 yd^3	0.76 –3.82 m^3
Open Top Rolloff	X	X	X	X	X	X	8-40 yd^3	6.11- 30.58 m3
Roll Top Rolloff	X	X	X		X	X	15-25 yd^3	11.47 – 19.11 m3
Vacuum Box	X	X					15-25 yd^3	11.47 – 19.11 m3
Frac Tank	X	X					500-20,000 gal	1892.7 – 75708 litres
Poly Tank	X	X					200-4,000 gal	757.08 – 15142 litres
Vacuum Truck	X	X	X				2,000-5,000 gal	7570.8 – 18927 litres
Tank Trailer	X	X					2,000-4,000 gal	7570.8 - 15142 litres
Barge	X	X					3,000+ gal	11356+litres
Berm, 4 ft	X	X	X	X	X	X	1yd^3	0.76 m3
Bladders	X	X					25-1,500 gal	94.63 – 56778.1 litres

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2.4.8 Site Safety and Health Plan

The Site Safety and Control Analysis and the individual Site Safety Plan (ICS 208) are designed to comply with regulations. The Site Safety Plan (ICS 208) form is intended to describe the health and safety guidelines developed for the Response Operations to protect personnel, visitors, and the public from physical harm and exposure to hazardous materials or wastes. The Site-Specific Safety & Health Plan form (ICP 007) is to be used to develop and recommend measures for assuring personal safety, and to assess and/or anticipate hazardous and unsafe situation. The Site Safety Plan (ICS 208) may also be used as a preparation of a site safety plan; including current conditions and hazards. The procedures and guidelines contained herein are based upon the best available information at the time of the form's preparation. Specific requirements will be reviewed and revised when new information is received and/or conditions change.

Enbridge staff and contractors must also complete a Safe Work Permit and Field Level Hazard Assessment. Specifically, this plan provides procedures and information for program administration, safety and health considerations, PPE, medical surveillance, training, site control, industrial hygiene monitoring programs, personal hygiene, sanitation, housekeeping, and the decontamination of both PPE and equipment utilized during the response.

These ICS Forms are located in *Section 4 - Forms*.

Scope

All spill response and remedial activities will be conducted in accordance with established SSHP guidelines. These guidelines will cover all personnel, including Company employees, contractors, subcontractors, government employees, and visitors. The SSHP guidelines will be modified as necessary and where applicable will address multiple work environments. A copy of this program will be posted at all command operations and field centers for the duration of the clean-up activity. It is the responsibility of each manager, supervisor, and crew foremen to be familiar with these guidelines and to assist in their implementation.

The SOFR will develop and administer a SSHP during an emergency response. The SOFR will be available to answer questions regarding effective implementation of the Plan. The SOFR is supported by other staff personnel advisors in Safety, Industrial Hygiene, Occupational Medicine, Environment, Operations and Legal.

It is the responsibility of the SOFR to monitor the effectiveness of the SSHP and to contact the appropriate support staff for guidance if changes to the plan are necessary.

All employees who may be directly involved in any clean-up activities are required to be trained and briefed on the contents of this SSHP. All employers and employees will be responsible for adhering to all Federal, Provincial/State, Territorial, and local regulations for clean-up activities.

The SOFR will enforce compliance with the SSHP and all other requirements. Any deviations from the stipulated requirements, which are noted, will be communicated to the

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responsible contractor. The contractor will take immediate actions to correct the deviations and prepare a written corrective action report to be submitted to the SOFR.

Daily Safety Briefings

Site safety meetings/briefings are the first step in maintaining site safety. Daily meetings will be held at the start of each shift to ensure that all personnel understand site conditions and operating procedures, to ensure that PPE is being used correctly, to address worker health and safety concerns and to communicate any changes or revisions to the SSHP.

Briefing Attendance Forms shall be used to document that individuals working in the Response Operation recognize the hazards present and the policies and procedures required to minimize exposure or adverse effects of these hazards.

Visitor Policy

All visitors must provide all required training documentation prior to arrival on-site, if applicable. The IC and/or OSC and the PIO must approve the site visit and shall coordinate visitor tours with the Operations Section. The SSHP shall designate a safe route through the site and away from the on-going operations, and provide for visitor escorts. The OSC and applicable Branch or Group Supervisors must be notified when the visitor approaches. The OSC and applicable Branch or Group Supervisor shall acknowledge visitor arrival onsite and communicate approval of the visit and acceptable duration for the visitor onsite.

Visitors are expected to dress appropriately for a field visit and when required, shall wear PPE consistent with that used by workers at the Response Site.	
✓	All visitors shall be approved prior to arrival at the Incident Site
✓	All visitors are to be escorted.

Site Safety During Initial Response

During the initial response phase the ICS 201-5 form is used to ensure hazards are identified, evaluated and managed, and this form would also typically be used for a Tier 1 response. The ICS 201-5 form can be supported by attachments such as the released product SDS and other topics at the SOFR's discretion. In a Tier 1 response the SOFR transitions to the ICS 208 form at their discretion.

A Tier 2 response would typically use the SDS, ICS 208 Site Safety Plan and Medical Plan forms. The ICS 201-5 form would be in place until the Tier 2 Safety team transitions from the Tier 1 team. The ICS 208 and ICS 206 form can also be supported with attachments of SDS and Medical Plan, at the SOFR's discretion. SDSs are located in *Annex 1*. When a response has transitioned to the "project phase" the project is usually turned over to a remediation project group. At that time a SSHP will be developed based on Company safety and health procedures.

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Site Name:	Date / Time:

	A. Monitoring Plan
✓	Air monitoring at the spill site and surrounding areas will be done to ensure site worker and community safety
✓	Air monitoring will be done during work shift site characterization and on each work shift during clean-up activities until results indicate no further monitoring is required
✓	All monitoring done at the clean-up site will be documented and the data maintained by qualified personnel on site
✓	Monitoring will be done: ❒ During initial site entry and characterization ❒ If a new potential inhalation hazard is introduced into the work area ❒ During clean-up activities, on each work shift ❒ If a new task is begun that may involve potential inhalation exposure.
✓	Noise monitoring and radiation monitoring will be conducted as needed.
	B. Initial Site Monitoring
✓	Instruments will be calibrated prior to and following use
✓	Monitoring will be done during initial site entry. The monitoring will include checking for: ❒ Oxygen (O_2) deficiency using a direct reading oxygen meter; ❒ Flammable atmospheres (%LEL) using a combustible gas indicator; ❒ Benzene, hydrogen sulfide, hydrocarbons, and combustion by-products (SO_2, CO), as needed, using direct-reading instruments, colorimetric indicator tubes, and/or other valid methods
✓	All monitoring will be documented (*Section 4 – Forms, ICP 006: Site Monitoring Template).*
	C. Post-Emergency Monitoring (On-Going)
✓	Monitoring for benzene, hydrogen sulfide, hydrocarbons and combustion by-products will be done during each work shift on an on-going basis, as needed. Repeat initial site monitoring if any significant changes occur (i.e., temperature increases, more material released, wind direction changes, etc.)
✓	Checks for oxygen deficiency and flammable atmospheres will be made if confined spaces are encountered, or as required
✓	Exposure monitoring shall be done as necessary. Personnel samples will be collected under the direction of the industrial hygiene personnel. Samples will be analyzed by an accredited laboratory
✓	Results of site monitoring will be made available to site workers' supervisors for informing all affected employees. Results will be made available to the Command Center for review by regulatory agencies.

Site Safety and Health Plan Evaluation Checklist

See *Section 4 - Forms* for the SSHP Evaluation Checklist

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2.4.9 Protection, Containment and Recovery

Protection refers to the action of preventing harm and/or suffering from someone or something. Containment and recovery refers to the techniques or methods that can be employed to contain and recover petroleum spills on water or the containment of petroleum spills flowing overland. Recovery of terrestrial spills is often very similar, or uses the same techniques as shoreline clean-up. Other techniques, such as ice tactics and open water recovery, are covered in the Inland Spill Response Tactics Guide; the techniques described in the Integrated Contingency Plan are most commonly used.

Control Points contain detailed site-specific information including recommended tactics for spill response actions to provide the highest probability for properly establishing containment/recovery and to ensure that sensitive resources are protected. Control Points contain detailed tactics that are identified for strategic locations along the Company's system. These plans provide fast and effective site-specific response tactics to ensure that sensitive resources are protected. The tactics are flexible to accommodate for varying conditions. The types of tactics that may be used can be found in the Inland Spill Response Tactics Guide.

The following considerations should be taken into account when planning or implementing containment and recovery operations:	
✓	Containment is most effective when conducted near the source of the spill where the oil has not spread over a large area and the contained oil is of sufficient thickness to allow effective recovery and/or clean-up
✓	Feasibility of containment is generally dependent on the size of the spill, available logistical resources, implementation time, environmental conditions and the nature of the terrain in the spill area
✓	Aquatic (water) containment is primarily conducted through the use of oil spill containment booms (this is a key tactic to control the water discharged from upstream impoundments)
✓	Skimmers are usually the most efficient means of recovery of aquatic spills, although pumps, vacuum systems, and sorbents can also be effective, particularly in smaller waterways
✓	Terrestrial (land) containment typically involves berms or other physical barriers
✓	Recovery of free petroleum from the ground surface is best achieved by using pumps, vacuum sources, and/or sorbents.

2.4.9.1 Inland Spill Response Tactics Guide

The Inland Spill Response Tactics Guide is a Company document that can be used as a quick reference by Enbridge first-on-scene responders to select and implement containment and recovery tactics with Enbridge-owned oil spill response equipment during the first 72 hours of the response. It illustrates a collection of inland spill tactics that can be applied using obtainable resources to a liquid products release until additional resources and personnel arrive on site.

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2.4.9.2 Isolation Protection Technique Selection (Conversion Table located in Section 1: Plan Introduction Elements

Technique	Description	Logistical Requirement Examples	Use Limitations[1]	Potential Environmental Effects
Techniques on Land				
A. Containment / Diversion Berms (3.1.1 in Tactics Guide)	Construct berm (clay, bales, rocks, logs, etc.) ahead of advancing surface spill to contain spill or divert it to a containment area.	Typical Equipment Backhoe, bulldozer, front- end loader, or set of hand tools, plastic sheeting	• Steep Slopes • Porous substrate	• Disturbance to environmental sensitivities, surface soils and vegetation • Increased oil penetration
B. Interceptor Trench (3.1.2 in Tactics Guide)	Excavate ahead of advancing surface/ near-surface spill to contain product. Cover bottom and down gradient side with plastic.	Typical Equipment* Backhoe or set of hand, tools, misc. plastic sheeting	• Slope • Depth to near- surface flow	• Increased oil penetration • Disturbance to environmental sensitivities, surface soils and vegetation • Potential to impact groundwater
C. Trench and Berm (3.1.3 in Tactics Guide)	Construct berm with soil from the trench to stop the advancing surface spill and allow for recovery.	Typical Equipment* Backhoe, bulldozer, front- end loader, or set of hand tools, plastic sheeting	• Steep Slopes • Porous substrate	• Increased oil penetration • Disturbance to environmental sensitivities, surface soils and vegetation • Potential to impact groundwater

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Technique	Description	Logistical Requirement Examples	Use Limitations[1]	Potential Environmental Effects
Techniques on Small Watercourses				
D. Stream Dam, Board Weir, Siphon Dam (3.2.1, 3.2.2 and 3.2.5 in Tactics Guide)	Construct dam in drainage course/stream bed to block and contain flowing oil. Cover with plastic sheeting. If water is flowing, install inclined pipes during dam construction to pass water underneath.	Typical Equipment* Backhoe, bulldozer, front- end loader, or set of hand tools, plastic sheeting roll, Aqua Dam, PVC Pipe, Water Gate, Tiger Dam, Water Bag	• Upstream storage capacity	• Increased oil penetration • May increase suspended sediment • Downstream water flow may be restricted
E. Culvert Block (3.2.3 in Tactics Guide)	Block culvert opening with plywood, sediments, sandbags, etc. to prevent oil from entering culvert	Typical Equipment* Misc. hand tools, misc. plywood, sandbags, etc.	• Upstream storage capacity	• Increased oil penetration • Downstream water flow may be restricted
F. Filter Fence - Debris Exclusion (3.2.4 in Tactics Guide)	Install fence barrier upstream of containment site to exclude debris/ice	Typical Equipment* Misc. hand tool, fence posts, fence, fasteners, chicken wire, support lines, bales, sorbent materials etc.	• Soft substrate	• Minor substrate disturbance at post an anchor points

Technique	Description	Logistical Requirement Examples	Use Limitations[1]	Potential Environmental Effects
Techniques on Small Watercourses				
G. Sorbent Barriers / Filter Fence (3.2.4 in Tactics Guide)	A barrier is constructed by installing two parallel lines of stakes across a channel, fastening wire mesh to the stakes, and filling the space between stakes with sorbents.	Typical Equipment* Misc. hand tools, boats, fence posts, wire mesh, sorbents, misc. fasteners, support lines, stakes, etc.	• Soft substrate	• Minor substrate disturbance at post and shoreline anchor points • High substrate disturbance if boat is not used
Techniques on Larger Watercourses				
H. Diversion Booming (3.3.3.3 in Tactics Guide)	Boom is deployed from the shoreline at an angle towards the approaching slick and anchored or held in place with a work boat. Oil is diverted towards the shoreline for recovery.	Typical Equipment* Hard boom, ground tackle, rope, shoreline anchors, boats, winches.	• Sensitive shorelines	• Minor substrate disturbance at anchor points • Heavy oiling at shoreline anchor point
I. Narrow Channel Containment Booming (3.3.3.3 in Tactics Guide)	Boom is deployed across entire river channel at an angle to contain floating oil passing through channel.	Typical Equipment* Hard boom, ground tackle, rope, shoreline anchors, boats, winches.	• Sensitive shorelines	• Minor substrate disturbance at anchor points • Heavy shoreline oiling at downstream anchor point
J. Exclusion Booming (3.3.3.1 and 3.3.3.2 in Tactics Guide)	Boom is deployed across or around sensitive areas and anchored in place. Approaching oil is excluded from area.	Typical Equipment* Hard boom, ground tackle, rope, shoreline anchors, boats, winches.		• Minor substrate disturbance at anchor points

Technique	Description	Logistical Requirement Examples	Use Limitations[1]	Potential Environmental Effects
K. Deflection Booming (3.3.3.1 and 3.3.3.2 in Tactics Guide)	Boom is deployed from the shoreline away from the approaching slick and anchored or held in place with a work boat. Oil is deflected away from shoreline.	Typical Equipment* Hard boom, ground tackle, rope, shoreline anchors, boats, winches.	• Onshore winds	• Minor substrate disturbance at anchor points • Oil is not contained and may contact other shorelines
L. Boomvane Deploying Containment / Recovery / Deflection modes (3.3.3.4 in Tactics Guide	BoomVanes can be used in place of ground tackle when deploying deflection and diversion booms.	Typical Equipment* Hard boom, BoomVane(s), control line, mooring line,boom/shore anchor line, tow bridles, shore anchor pins.	• Requires access to multiple shoreline locations (if mooring line is to be used) • Requires a current (not for still water use)	• Minor disturbance of trees if using as an anchor point.

[1] In addition to implementation and accessibility.
* Need to establish a safe perimeter and follow safety precautions as appropriate before work begins.

2.4.9.2 Cont. Isolation Protection Technique Selection *(See Conversion table located in Section 1: Plan Introduction Elements)*

Technique	Description	Logistical Requirement Examples	Use Limitations[1]	Potential Environmental Effects
Spills on Water (Cont'd)				
K. Deflection Booming (3.3.3.1 and 3.3.3.2 in Tactics Guide)	Boom is deployed from the shoreline away from the approaching slick and anchored or held in place with a work boat. Oil is deflected away from shoreline.	Typical Equipment* Hard boom, ground tackle, rope, shoreline anchors, boats, winches.	• Onshore winds	• Minor substrate disturbance at anchor points • Oil is not contained and may contact other shorelines
L. Boomvane Deploying Containment / Recovery / Deflection modes (3.3.3.4 in Tactics Guide	BoomVanes can be used in place of ground tackle when deploying deflection and diversion booms.	Typical Equipment* Hard boom, BoomVane(s), control line, mooring line,boom/shore anchor line, tow bridles, shore anchor pins.	• Requires access to multiple shoreline locations (if mooring line is to be used) • Requires a current (not for still water use)	• Minor disturbance of trees if using as an anchor point.

[1] In addition to implementation and accessibility.
* Need to establish a safe perimeter and follow safety precautions as appropriate before work begins.

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2.4.9.3 Technique Selection - Terrestrial Containment and Recovery

The primary factors influencing terrestrial containment and recovery are:	
✓	**Size** - Most containment techniques provide limited storage capacity
✓	**Slope** - Berms and barriers are generally less effective on steeper slopes and accessibility may be limited
✓	**Surface texture** - Rough surfaces with natural ridges and depressions enhance containment and should be taken advantage of whenever possible
✓	**Substrate permeability** - Highly permeable sediments will allow rapid penetration of oil into the substrate, thus complicating containment and recovery
✓	**Topographical Low Areas**- Oil is more easily contained and recovered if it is flowing within, or can be diverted to, existing natural or manmade topographical low areas
✓	**Stormwater runoff** - Runoff generally requires the containment of larger quantities of liquids and complicates oil recovery.

2.4.9.4 Technique Selection - Aquatic Containment and Recovery

Selection of an appropriate aquatic containment, protection and recovery technique depends on a number of factors including:	
✓	**Current speed** - Surface currents greater than 1 knot may cause boom failure or entrapment of oil beneath the boom when the boom is deployed perpendicular to the current. Boom can be deployed at varying angles as the current increases.
✓	**Water depth** - Depths greater than 50 ft. (approximately 15 meters) can complicate hard boom anchor placement within the watercourse. Shorelines anchors or systems such as the Boom Vane may be more applicable. Depths less than 2 feet (approximately 0.5 meters) can preclude effective hard boom use. Sorbents booms, dams and filter fences may prove more effective.
✓	**Channel width** - The width of a watercourse will determine if multiple sections of boom need to be installed. One method is cascading boom. Single boom deployments across wider channels have a greater change of failing as current increases.
✓	**Slick thickness** - Recovery effectiveness with pumps/vacuum systems and skimmers decreases as slick thicknesses decline, becoming relatively ineffective for very thin slicks or sheens
✓	**Shoreline access** - Obstacles (rocks, debris, man- made structures, etc.) in the water or steep or densely vegetated shorelines could restrict access and present safety and operational problems
✓	**Anchor points** - Soft bottom substrates can complicate boom anchor placement
✓	**Safety** - High currents and winds, large obstacles, and other dangerous conditions could present safety hazards and preclude certain techniques.

The objective of mechanical recovery is to collect contained and concentrated oil and to transfer the oil to temporary storage for subsequent disposal. Spills that have been contained by a boom, a berm or in slots cut into the ice can be skimmed and pumped into storage containers.

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Three basic types of skimmers are used to recover oil:

- Advancing systems
- Stationary skimmers
- Vacuum units.

There are a wide variety of collection principles and varieties of stationary skimmers on the market than can be used to recover hydrocarbons from the water's surface. Operational factors such as oil viscosity, oil thickness, debris and temperature all play an important role in the selection of skimmers. At temperatures below freezing, some skimmers may become difficult to operate; however, the additions of steam, hot water and pressure, or heating elements are sometimes considered for skimmers in cold conditions.

Vacuum systems can include portable vacuum units or a conventional vacuum truck with skimmer head. Vacuum systems can provide a quick and effective method for recovering large volumes of oil and are capable of handling a wide range of fluid viscosities and a variety of small debris.

The third party contractor(s) contracted to respond in each ICP Geographical Annex is capable of being on site and ensuring spill containment activities are accomplished within the appropriate response times. They will provide sufficient containment equipment to ensure enough capacity is available to respond to a WCD.

Submerged Oil Content

Enbridge's tariff restricts products on the system to those with a density of no greater than 940 kg/m^3. All products shipped on the Enbridge system are floating oils, including dilbits and synbits.

Enbridge acknowledges that, under certain environmental conditions, some fraction of oil released into a water body may become entrained in the water column, submerge or sink, in freshwater environments. This is the case irrespective of whether the product is diluted bitumen, synthetic crude, or conventional crude oil. This is not an issue that is limited to diluted bitumen.

The primary mechanisms that may lead to submergence of petroleum products are:

- Product weathering – Note that products shipped on the Enbridge system are not expected to weather to a point whereby their density would be greater than the density of water;
- Interactions and agglomeration onto sediment, which can cause oil particles to submerge or sink; and
- Emulsification due to the dynamic properties of the water body.

Practically, for products shipped on Enbridge's system, it is the combination of these processes, under specified environmental conditions, that can lead to the submergence and sinking of a percentage of released products.

Unless the released product has a density (specific gravity) > 1.0 (typical for freshwater), it will not sink en-mass.
Enbridge considers the potential for sinking and submerged oil as part of our Emergency Response

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plans and in the execution of such plans. In the unlikely event of a spill, Enbridge would work with regulatory agencies to determine the appropriate response and remedial actions given the specific circumstances of the event. This would include decisions regarding the short term emergency response as well as subsequent clean-up of residual amounts of submerged oil.

2.4.9.5 Shoreline and Terrestrial Operations

In the event that terrestrial sediments do become oiled or that petroleum contacts and becomes stranded on a shoreline, clean-up operations should be undertaken to minimize the environmental effects of the petroleum. In most instances, clean-up efforts are not subject to the same time constraints as containment, recovery and protection operations. As a result, better planning and greater attention to detail is possible. The exception is where there is a high probability of stranded oil becoming remobilized and migrating to previously unaffected areas. In this case, clean-up operations should be implemented immediately.

The following items should be considered in detail:	
✓	Documentation of the location, degree and/or extent of oil conditions
✓	Evaluation of all environmental, cultural, economic, and political factors
✓	Clean-up technique selection
✓	Mitigation of physical and environmental damage associated with clean-up technique implementation
✓	Cost-effectiveness.

The shoreline or terrestrial area that has been impacted by the oil conditions can range from those that require immediate and thorough clean-up to lightly oiled areas where no action may be the most environmentally sound option. The amount and type of oil, shoreline sensitivity, substrate or shoreline type, intrusive nature of the direction flow, and shoreline exposure are all factors that influence technique selection in spill clean-up operations.

Clean-up Technique Selection – Shoreline

The selection of an appropriate shoreline clean-up technique is primarily dependent on the following factors:	
✓	**Substrate type** - Finer-grained sediments typically require different techniques than coarse- grained sediments
✓	**Oil conditions** - Heavier oil conditions and larger areas may require more intrusive or mechanical methods, whereas lighter conditions may not require clean-up. For example, removing lighter oils in a marsh area or wetland may cause more harm to the environment than allowing for natural attenuation and biodegrading
✓	**Shoreline slope** - Heavy equipment may not be usable on steeper shorelines
✓	**Shoreline sensitivity** - Intrusive techniques may create a greater impact than the oil itself
✓	**Oil penetration depth** - Significant penetration can reduce the effectiveness of several techniques.

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Clean-up Technique Selection - Terrestrial

The selection of an appropriate terrestrial clean-up technique is primarily dependent on the following factors:	
✓	**Size** - Larger areas will generally require the use of mechanical methods, whereas manual techniques can be used for smaller areas
✓	**Slope** - The use of heavy equipment is often restricted to gradually sloped areas, and manual techniques may be considered unsafe if used on steep terrain
✓	**Soil type** - Softer soils may reduce traffic ability for heavy equipment and the presence of coarser sediments and bedrock could also restrict the use of certain types of heavy equipment
✓	**Oil penetration depth** - Significant penetration may require the use of heavy equipment or special subsurface remediation techniques
✓	**Impacted groundwater** - Special subsurface remediation techniques would likely be required.

The third party contractor(s) contracted to respond are located in each ICP Geographical, *Annex 1* **Facility and Locality Information**. Contractors are capable of being on site and ensuring spill recovery activities are accomplished within the appropriate tiered response times. They will provide sufficient recovery equipment to ensure enough capacity is available to respond to a WCD.

Non-Mechanical Response Options

Non-mechanical response options that could be used in responding to a spill include:	
✓	Chemical treatment
✓	Bioremediation
✓	In-situ Burning

Although the physical control and recovery of spilled oil is advocated and generally preferable, such actions are not always possible or practical because of factors including safety hazards, remote spill sites, or weather. When non-mechanical methods can result in reduced human hazard or environmental damage, consideration of their use is appropriate, but will require regulatory approval. In Canada, chemical treatments / dispersants are not a commonly used tactic on inland waters and would only be considered after consultation and approval from the Department of Fisheries and Oceans and other applicable regulatory stakeholders.

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2.4.9.6 - In-Situ Burning*

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In-Situ Burning

When mechanical recovery (the preferred cleanup method) of spilled oil is not feasible, in-situ burning may be considered. Since burning presents a potential safety and air pollution hazard to the surrounding area, approval from appropriate regulatory agencies is required.

In-situ burning alters the composition of the spilled oil by eliminating anywhere from 90 to 99 percent of the original volume of oil provided it is controlled within a fire resistant boom or other containment system. A portion of the original oil is released into the atmosphere as soot and gaseous emissions. Solid or semi-solid residues typically remain following a burn, but are relatively easy to retrieve. They can be further reduced in volume through repeated burns, and ultimately are collected and removed from the environment.

Evaluation

The potential for implementing a successful burn depends upon the knowledge and experience of those responsible for the assessment of the spill situation. Review of the spill conditions, together with the spill checklist below, will ensure that the safety issues, the benefits, and the environmental impacts will have been examined carefully. While steps may be taken to move critical equipment into position for a possible burn, there should be no attempt to ignite spilled oil without prior authorization from federal, provincial, state and local authorities.

Decisions to burn or not to burn oil in areas considered case-by-case are made on the basis of the potential for humans to be exposed to the smoke plume, and pollutants associated with it.

Before a spill is ignited, consider:

- Regulatory permits and approvals specific to the jurisdiction.
- Appropriate monitoring is in place to limit particulate matter (PM-10) exposure to 150 micrograms per cubic meter.
- Smoke plume modeling is done to predict which areas might be adversely affected.
- Aerial surveys are also conducted prior to initiating a burn to minimize the chance that concentrations of mammals, turtles and birds are in the operational area and affected by the response.
- Sampling should be conducted for particulates at sensitive downwind sites prior to the burn (to gather background data) and after the burn has been initiated. Data on particulate levels are recorded and the data and recommendations are forwarded to the Incident Commander (IC).
- Oil type, amount and condition
- Environmental conditions
- Availability of personnel and equipment
- Timing
- Human safety
- Danger of fire spreading
- Presence of explosive vapors
- Damage to nearby habitats that may prolong natural recovery

Request Process

When a request for an in-situ burn is made:

- Complete In-Situ Burn Plan Template Form ISP 009 – *ICP Core Section 4* or similar plan required by federal, state/provincial, & local authorities.
- The burn must be outside the corporate city limits, except as deemed necessary by the local fire department.
- Wind direction should move the smoke away from the city and/or populated areas.
- Burning must be at least 300 feet (91.44 meters) from any adjacent properties.
- Burning should commence during daylight, typically between the hours of 9:00 am and 5:00 pm
- Wind speed should be between 5 mph (8.052 km/h) and 20 mph (32.19 km/h) (IAW SMART recommendations) during the burn period.
- Burn should not be conducted during persistent atmospheric thermal inversions.

Approval Procedure

Approval for the burn must be obtained from regulatory bodies and other stakeholders. The approval required to conduct a burn will vary in each jurisdiction.
The following steps outline the approval process for in-situ burning as a tactic:

- The need to carry out an in-situ burn is documented in the Incident Action Plan (IAP) during the Planning Cycle process
- Incident Commander (IC) reviews and approves the request
- The request is then presented to the Federal On Scene Coordinator (FOSC) for approval

The FOSC will submit a burn plan to Federal, State and local regulatory entities/ stakeholders for review and approval.

National Response Center (NRC) 1-800-424-8802

Plume Dispersion Modeling

It may be necessary to conduct a plume trajectory assessment to determine public health safe distances for the following reasons:

- Regulatory requirements to obtain approval to burn;
- Local terrain not (relatively) flat;
- Winds exceed 18 km/hr (11 mph);
- Close proximity of populated areas (for safety or perception considerations); and
- The presence of unusual meteorological conditions (e.g., temperature inversions)

The wind speed of 35 km/hr (21 mph) is the established upper limit at which fire behavior can be predictably managed.

The Planning Section will be responsible for leading the assessment. The Incident Commander must be made aware of the assessment results and the results should be included in the In-Situ Burn Plan.

Monitoring

In-situ burning generates a thick black smoke that contains primarily particulates, soot, and various gases (carbon dioxide, carbon monoxides, water vapor, nitrous oxides and Polycyclic Aromatic Hydrocarbons (PAH's). The components of the smoke are similar to those of car exhaust. Of these smoke constituents, small particulates less than 10 microns in diameter, known as PM-10, are considered to pose the greatest risk to humans and nearby wildlife. Due to these potential affects monitoring before, during and after a burn may be required.

In general, SMART* is conducted when there is a concern that the general public may be exposed to smoke from the burning oil. It follows that monitoring should be conducted when the predicted trajectory of the smoke plume indicates that the smoke may reach population centers, and the concentrations of smoke particulates at ground level may exceed safe levels. When impacts are not anticipated, monitoring levels will be decided by the federal, provincial, state and local authorities.

The Planning Section will be responsible for developing and monitoring plan for the burn.

Execution of in-situ burning has a narrow window of opportunity. It is imperative that the monitoring teams are alerted of possible in-situ burning as soon as burning is being considered, even if implementation is not certain. This increases the likelihood of a timely and orderly burn process.

The monitoring teams are deployed at designated areas of concern to determine ambient concentrations of particulates before the burn starts. During the burn, sampling and continues readings are recorded both in the data logger of the instrument and manually in the recorder data log.

After the burn has ended and the smoke plume has dissipated, the teams remain in place for some time (15-30 minutes) and again sample for and record ambient particulate concentrations. During the course of the sampling, it is expected that the instantaneous readings will vary widely. However, the calculated time-weighted average readings are less variable, since they represent the average of the readings collected over the sampling duration, and hence are a better indicator of particulate concentration trend. When the time-weighted average readings approach or exceed the Level of Concern (LOC), the team leader conveys this information to the IC.

Monitoring activities should be directed by the Operations Section Chief in the Incident Command System. It is recommended that a "group" be formed under the Operations Section that directs the monitoring effort. (e.g. Monitoring Group Supervisor.) Under each group there are monitoring teams, at a minimum, a monitor and assistant monitor. An additional team member could be used to assist with sampling and recording. The teams report to the Monitoring Group Supervisor who directs and coordinates team operations, under the control of the OSC.

Communication of monitoring results should flow from the field (Monitoring Group Supervisor) to those persons in the ICS/UC who can interpret the results and use the data. Typically, this falls under the responsibility of a Technical Specialist on in-situ burning in the Planning Section of the command structure. The Technical Specialist or his/her representative reviews the data and, most importantly, formulates recommendations based on the data. The Technical Specialist communicates these recommendations to the ICS/UC. Quality assurance and control should be applied to the data at all levels. The Technical Specialist is the custodian of the data during the operation, but ultimately the data belongs to the ICS/UC incident files. This will ensure that the data is properly archived, presentable, and accessible for the benefit of future monitoring operations.

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* *These procedures reflect Special Monitoring for Applied Response Technologies (SMART) protocols developed by NOAA, US Coast Guard. Full procedures for reference can be found online at http://response.restoration.noaa.gov/sites/default/files/SMART_protocol.pdf*

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Product Characteristics

- Refined product or light to medium crude will burn more efficiently and leave less residue to recover compared to heavier product.
- Heavy oil requires longer heating times and a hotter flame to ignite than lighter oils.
- Product that is relatively fresh (less than 3 days of exposure to the elements) will burn more efficiently than weathered product.
- Burn duration can be estimated based on known burn rates for different product types (e.g., 2-4 mm [1/10 in.] of depth per minute for medium crude).

Soil and Vegetation

Saturated or frozen soil reduces the extent of damage to vegetation root systems and the soil itself in the containment area and in adjacent areas. Optimally, the containment and adjacent areas are mostly un-vegetated (e.g., dry roads, ditches, dry streambeds or idle cropland).

Herbaceous vegetation (grasses) are generally more fire tolerant to an adjacent burn than woody vegetation (shrubs and trees), although some woody species are also fire tolerant. In highly vegetated areas, fire behavior and forestry specialists will be consulted.

Dormant vegetation (not during the growing season) is generally more resilient in response to fire damage than actively growing vegetation. Dense wetland vegetation can slow evaporation and prolong the opportunity for conducting an efficient in-situ burn.

Wetlands

A layer of water at least 2.5 mm to 10 mm (1 in. to 4 in.) under the burning product will provide protection to vegetation root systems from heat stress.

Burned areas should not be flooded with high water levels shortly after the burn. The remaining root systems require oxygen from the air or soil until new vegetation emerges.

On Water (Open or in Broken Ice)

Adequate containment (fire boom, ice or bank) is necessary and must result in the minimum product depth of 2 - 3 mm (1/10 in.) to sustain ignition. Wave conditions that exceed 3 ft. can result in higher emulsion rates and splash-over, and make containment difficult. A sustained burn is more likely if the oil has not significantly emulsified (<25%).

In broken ice, ice coverage of 30% to 65% will slow slick movement and may allow for a slow moving semi-contained burn attempt. Ice coverage of 65% or higher may provide natural containment via floes touching. Currents higher than 1.4 km/hr (0.9 mph) may result in the escape of product under the ice.

Ignition Considerations and Procedures

After completing all the pre-burn requirements, the in-situ burning program should be implemented, taking the following into consideration:

- every in-situ burn is unique
- ignition procedures vary with prevailing conditions and available equipment, manpower and emergency resources.
- ongoing monitoring of local weather conditions and long range forecasts are essential to permit a safe and effective burn.

Determine the appropriate time and conditions for igniting the spill .

- Use experienced personnel to oversee the burning activities and monitor the burn plan.
- The area around the spill site should be monitored using an explosive / toxic gas meter to determine any explosive / toxicity hazards.

The spill should be approached from upwind during all phases of the operation by personnel who are properly equipped and trained to monitor the conditions.

- Continually monitor weather conditions.
  - burning should occur only when wind conditions are low
  - weather should be stable
- Ignition should not occur until entire area is secured.
- Ensure there is a sufficient supply of the following on-site (actual numbers will be determined based on the individual spill conditions)
  - fire-fighting equipment
  - personnel (workers and emergency staff)
  - water supplies
- If potential exists for secondary fires, ignition should take place during low burning period (i.e. 1800 to 1000 hrs).
- If the product is heavy oil, or it is severely weathered, it may be advantageous to burn during the heat of the day in order to assist with ignition, if safe to do so.

Determine what method of ignition will work the best while still allowing for safe implementation

- Ignition procedures should be designed to allow the response team to be well back of the site when the spill is ignited. Individual companies may have their own ignition procedures based on the type of product and ignition devices available.
- Ensure the oil at point of ignition is between 2-3 mm thick to create a sustained burn. Ignition source should generate sufficient heat long enough to cause the oil to ignite.
- Spills that contain light ends will probably ignite without the assistance of an auxiliary fuel source. A flare shell propelled from a safe distance should be adequate**.**
- Spills that contain a high percentage of heavy ends may require the use of an auxiliary fuel or ignition promoter
- Auxiliary fuel usually consists of diesel, kerosene and gasoline but can also be in the form of dry straw, etc.
- Diesel and kerosene are considered to be the best ignition promoters as the flame temperature is higher
- Lighter products, such as gasoline, evaporate much faster than diesel which results in faster cooling of the slick
- Dry straw can be effective but application must be able to be done in a safe manner
- Ignite the outer edge of the spill and allow the fire to burn from the outside in (helps to reduce chances of fluid migration).

Ignition Considerations and Procedures *continued*

Determine what method of ignition will work the best while still allowing for safe implementation, *continued*

- Use multiple ignition points, where possible, to encourage the spreading of flames throughout the spill area and improve burn efficiencies.
- Ignition devices may include:
  - flare shells
  - gelled gasoline
  - diesel or kerosene
  - mixtures of gasoline and diesel fuel
  - crude oil
  - organic matter such as peat moss or straw
  - canister igniters
  - aerial ignition devices
  - dry straw
  - propane torches.

Ignite the spill.

- Determine flammability / toxicity around the spill using an explosive / toxic gas meter.
- Apply the auxiliary fuel agents (if necessary) to the determined ignition areas.
- Approach the ignition points from upwind.
- Ensure ignition workers are in a safe zone by continuously monitoring for explosive / toxic mixtures.
- Ignite all sites of the spill at the same time, using the selected method.
- Allow initial burn to complete without adding any additional fuel.

Monitor the spill site during the burn period to ensure that no hazards exist.

- Monitor the weather conditions on a regular basis.
- Be prepared to implement the emergency plan should the conditions change for the worse.
- Ensure the workers are in a safe area.
- Monitor the success of the burning procedures as they are implemented and at completion of the burn.
- For larger spills, burning may continue over an extended period of time, involving night-time conditions.
- Maintain security until the hazards have been totally eliminated.
- Utilize a fire guard crew on the entire perimeter to ensure no secondary fires occur.
- Monitor the site for black smoke.
- Ensure that regulatory agencies, land owner(s), stakeholders, the public, and media are kept informed.
- Ambient air monitoring programs should be implemented as required.

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2.4.9.7 Bioremediation

Bioremediation and would be considered when mechanical disturbance is not warranted or would cause additional damage based on a Net Environmental Benefits Analysis.

Bioremediation is the process of applying nutrients (fertilizer containing nitrogen and phosphorus) or genetically engineered bacteria to oiled terrestrial or shoreline areas to accelerate the natural biodegradation process. During this process, micro-organisms (bacteria) oxidize hydrocarbons, ultimately converting them to carbon dioxide and water. Biodegradation occurs primarily at the oil/water or oil/air interface and is limited by oxygen, moisture, and nutrient availability. It is also sensitive to temperature; the lower the ambient temperature, the lower the rate. If nutrients are used, they must be supplied in such a way that they will not be washed away by tides or any water runoff.

Bioremediation Evaluation

The decision to use bioremediation treatment should be based on the type of spill, the character of the area impacted. In some cases, other forms of clean-up may be required in conjunction with nutrient addition to achieve the desired enhancement rate. As in the case of other oil spill response chemicals, approval must be obtained from the U.S. FOSC and U.S. State On-Scene Commander ("SOSC ") or applicable Canadian regulatory stakeholders before the nutrients are applied and the products must be listed on government product schedules where required. An expert should be consulted.

Under the U.S. Regional ACP and NCP, options for the authorization of biological agents are outlined for use under certain conditions and in certain locations. Consultation with the FOSC should take place to determine authorization/preauthorization requirements for approval.

The IC will be responsible for providing incident specific information needed to approve the use of bioremediation operations.

Bioremediation Approval

The physical containment and recovery of oil is the preferred clean-up technique.

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Biological Disinfection

Biological disinfection is the systematic reduction in the probability of spreading invasive biological organisms between freshwater environments.
Applying the practices in the procedure will reduce the probability of spreading invasive biological organisms between freshwater environments by way of Enbridge Pipelines Inc.'s, Enbridge Energy Partners, L.P. (Enbridge) or contractor equipment, material or operations used during a response or exercise. The procedure incorporates the requirements of the jurisdictions (state, province, territory and country) in which Enbridge operates.

The disinfection procedures included in this document may not be suitable in all situations or for all potential biological organisms. If more information is required regarding which disinfection procedure should be used, an appropriate environmental professional or environmental regulator should be contacted.

If required, the ENVL is responsible for development of the detailed Biological Disinfection Plan.

- Once items are disinfected, they should not come into contact with infected waters or other materials.
- Avoid touching absorbent materials with other absorbent materials during disinfection.

INSPECTION

To help determine if equipment need to undergo disinfection, either prior or post deployment, a full inspection of the equipment is needed. The inspection should be focused on any attached mud, plants, and other organisms. If debris is found, the equipment must undergo disinfection procedures. All inspections should be documented on the *Enbridge Invasive Species Inspection and Certification Form.* Further information on how inspection should be conducted can be found in the *Emergency Response Aquatic Invasive Species Inspection Procedures.*

General Guidelines

General guidelines that will assist in implementation of this SOP follow:

- Use a tagging system to identify infected from disinfected equipment.
- Look in cracks/crevices that may otherwise go unnoticed and hide unwanted organisms.
- Use rubber waders, gloves and boots where possible, as neoprene waders and gloves as well as felt soled boots retain moisture and organism such as Rock Snot and whirling disease. Neoprene and felt soles are also harder to disinfect.
- Allow equipment to dry completely and for the recommended times between uses.
- To help prevent transfer of aquatic invasive species, in addition to the above mentioned disinfection methods, where possible efforts should be made to designate equipment and personal gear to a single waterbody

The following should be considered when setting up disinfection stations:

- Weather conditions
- Proximity to water bodies or means by which water and cleaning solutions could enter water bodies.
- Disinfection stations will be constructed with secondary containment to collect wash water. Wash water will be collected and disposed of as per the site-specific waste management plan.
- Wherever possible, draining water from equipment (e.g. bilge water) should be done in the waterbody in which work was conducted.
- Type and quantity of PPE, clothing, heavy equipment and vehicles to be disinfected.

Equipment

WORKERS AND PERSONAL PROTECTIVE EQUIPMENT

When using chemicals, the appropriate PPE is to be used (e.g., appropriate gloves, safety glasses and clothing), and the SDS are to be reviewed and available.

Recommended cleaning supplies and equipment for disinfecting workers and their PPE will depend on the method of disinfection that is determined to be appropriate and may include:

- Heavy gauge plastic drop cloths for larger pieces of equipment, personal clothing/ technical equipment (i.e., waders, wader boots, rubber boots, motors, etc.).
- Assorted long and short handles soft bristled brushes to scrub equipment, parts and boots.
- Buckets for wash and rinse solutions.
- Tubs, stock tanks, or containers large enough and sturdy enough to contain water above 60ºC (140ºF).
- Plastic tubs for workers to submerge equipment and clothing.
- Methods for containing waste water.
- Methods for disposing of waste water (e.g. bilge water etc.).
- Bleach solutions:
  - 2% bleach solution (200 mL and water added to make 10 liters) for general disinfection
  - if targeting whirling disease specifically, a 10% solution should be used
  - if Viral Hemorrhagic Septicemia (VHS) is targeted a 20% chlorine bleach solution should be used.

Bleach can be corrosive to aluminum and hot water can delaminate Gore-Tex® fabric and other sensitive clothing or fabrics.

- 5% salt solution.
- 5% antiseptic hand solution.
- Full strength cleaning agents with quaternary ammonium compound alkyl dimethyl benzyl ammonium chloride (ex Parvasol ® and Kennelsol ® or Formula 409® and Fantastic ®).
- A 5% Household detergent (dishwashing detergent) solution.

Disinfection of workers and PPE must be completed in one of the on-site disinfection stations. These stations are to be separate from the on-site decontamination stations.

The following is recommended for disinfecting heavy equipment and vehicles. These should be used in addition to the previously listed materials and solutions.

- Pressure washer with at least 250 psi strength.
- Pumps for collecting wash solutions and emptying boats and other vessels
- Brooms and brushes for cleaning operator areas inside vehicles and equipment.
- Disposal receptacles for disposable cleaning materials and for any biological materials removed from equipment (e.g., plants, bait fish, paper towels or other disposable cleaning materials used).
- Methods for containing waste water.
- Methods for disposing of waste water (e.g. bilge water etc.).

Disinfection of heavy equipment and vehicles must be completed in one of the on-site disinfection stations. These stations are to be separate from the on-site decontamination stations. Decontamination is to occur prior to disinfection. If heavy equipment and vehicles require disinfection following decontamination, the equipment is to be brought directly from the decontamination station and is not to be re-used until disinfection has been completed.

Where possible, potentially infected equipment should be disinfected in one of the on-site disinfection station, rather than transported off-site for disinfection.

If on-site disinfection is not feasible, PPE and clothing should be removed as per the site-specific decontamination plan, bagged and not used on other sites before being disinfected off-site.

Disinfection Procedures

Disinfection methods should be matched to best suit the type of equipment being used. Refer to Spill Response Freshwater Biological Disinfection Procedures for detailed disinfection procedures.

It is illegal to transport live fish, bait or other organisms from one body of water to another. If none of the disinfection procedures are feasible for certain equipment, restrict use of equipment to a single water body.

DISINFECTION

Disinfection procedures may vary depending on whether particular organisms are being targeted, as well as what may be most suitable, based on what the equipment is made of, how readily some supplies are, and the feasibility of obtaining large enough quantities of cleaning solutions in the field.

DRYING

Drying can be used as a disinfection process if the following procedure can be followed:

- Some aquatic invasive species can survive out of water for more than two weeks. It is important to know potential species to which equipment may have been exposed. Equipment should be dried before transporting to another body of water, according to the site-specific species of concern.
- If targeting adult zebra mussels, 10 days may be required to kill organisms in cool or humid weather.
- If targeting *Didymosphenia geminate* (commonly referred to as Didymo or Rock Snot), equipment must be dried completely inside and out, and then for an additional 48 hours. Freezing items solid will also kill Didymo cells. Freezing overnight should work in most instances.
- Porous materials should be soaked in cleaning solutions for longer than non-porous materials and dried for longer periods of time than non-porous materials. Materials should be dry to the touch both inside and out, and allowed to dry for at least an additional 48 hours prior to entering a different waterway.

ACTIVE CLEANING

If drying cannot be implemented, an active cleaning method of disinfection will be required to limit the potential of transporting biological organisms from one fresh water environment to another.

Non Absorbent Items

Soak and scrub non-absorbent items for at least one minute (unless otherwise specified below) in one of the following solutions:

- 5% solution of dishwashing liquid (500 mL or 2 cups and water added to make 10 liters).
- 2% solution of bleach (200 mL and water added to make 10 liters).
- 5% solution of salt (500 ml or 2 cups and water added to make 10 liters).
- 5% antiseptic hand cleaner (500 mL or 2 cups and water added to make 10 liters).
- A dilute solution of 7% hydrogen peroxide mixed in a 64 ml (hydrogen peroxide):1litre (water) ratio. Can be applied using spray equipment. Infected equipment should be completely covered with the solution and allowed to sit for approximately 60 minutes before rinsing with clean water.
- Iodophor solution of 100 mg/L for moving equipment out of Viral Hemorrhagic Septicemia (VHS) management zones.
- Vinegar Dip (100% vinegar for 20 minutes).
- 1% salt solution in place of the vinegar dip for 24 hours.
- Full strength cleaning agents with quaternary ammonium compound alkyl dimethyl benzyl ammonium chloride (ex Parvasol ®and Kennelsol ®or Formula 409® and Fantastic ®)
- These can also be used in a 2:1 water to disinfectant ratio
- Soak all equipment for a minimum of 10 minutes

When deciding on the appropriate active cleaning methodology for non-absorbent items, the following should be considered:

- Disinfection with chemicals is not effective against killing spiny water fleas resting eggs.
- Disinfection with chlorine or iodophor must be used if fieldwork is conducted within and outside of the VHS management zones.
- Water-based solutions should be at least 60ºC (140ºF) and soaked for at least 20 minutes in hot water kept above 45ºC (113ºF).
- For equipment that cannot be submerged, solutions may be applied by either washing with a pressure washer, or with a pressurized garden hose. Pressure washers should reach at least 250 pounds per square inch (psi). Pressure washers may not be appropriate for all equipment and may damage some equipment.

ABSORBENT ITEMS

Absorbent items (e.g. felt-soled waders and diving suits) will require longer soaking times than non-absorbent items, to allow thorough saturation.

Soak absorbent items in the following solutions:

- At least 40 minutes in hot water kept above 45ºC
- At least 30 minutes in hot water kept above 45ºC containing a 5% dishwashing detergent solution
- For SCUBA gear, the following solution and soak times may also be used:
- Submerge and wash the suit and equipment (including inside of buoyancy compensator with hot water that is at least 40ºC (or 104ºF);
- Submerge/wash suit and equipment in a tub/tote with a salt solution (1/2 cup salt dissolved in 3.4 liters of water), then rinse with clean water

DISPOSAL

- Materials and solutions used in the disinfection process will be contained, and managed as outlined in the site-specific Waste Management Plan.

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Decontamination

Decontamination is the systematic removal of residual chemicals from personnel and equipment after exposure to toxic, flammable and/or hazardous products.

The SOFR is responsible to establish work areas which will be divided and identified (i.e. signs and/or barrier tape) into three zones as stated in the ICS 208- Site Safety Plan.

Each time clean-up workers exit the Hot Zone they will undergo decontamination (decon) procedures at stations within the Warm Zone. The SOFR will determine the decon level, measures and set-up of the decon corridor as part of the Site Safety Plan. If required, the ENVL is responsible for development of the detailed Decontamination Plan.

To determine the scope of decontamination stations needed, consider:

- Weather conditions
- Site conditions (e.g., access to utilities, space)
- Size of the emergency
- Quantity of PPE (e.g., boots, gloves, coats, coveralls, headwear, air monitoring devices, respiratory protective equipment)
- Amount of tools and equipment (e.g., shovels, axes, picks, pumps, chainsaws, compressors, light plants, backhoes, dozers, cranes, vacuum trucks, welding and boom trucks)
- Sensitive areas (natural areas, wildlife habitat)
- Natural drainage pattern
- Logistics of decontamination waste disposal

Non-Emergency/Routine vs. Emergency Decontamination

Routine decontamination is designed to reduce the amount of residual product on the clothing until safe and acceptable levels are achieved.

Emergency decontamination is designed to remove the patient from the hazardous area, remove contaminated clothing and flush the product off the patient. This will be accomplished taking into account any medical considerations. Water should be used to perform the emergency decontamination of the patient. There is less regard for runoff retention, and the emphasis is to expedite emergency medical treatment.

Factors Influencing Methodology

Product(s) involved
Hazards associated with the product(s)
Degree or extent of contamination
Physical and chemical properties of the product(s)

Decontamination Procedures

- All emergency response personnel will be briefed on decon procedures before entering the decon corridor.
- The decon corridor will be clearly identified by yellow tape or other highly visible method with clearly identifiable entry and exit points.
- The decon corridor will be established upwind of the Hot Zone or in a location where vapors from the Hot Zone will not significantly impact the corridor.
- If possible, the decon corridor will be set up close to services (water, electricity, road access etc.).
- The floor of each station will be covered with PVC sheets/10 mil poly to prevent contamination of the soil. The rest of the decon corridor will be lined with non-slip sorbent surface and bordered with sorbent rolls, pylons and barrier tape.
- Decon corridor entry and exit will be identified and located within the Warm Zone.
- Runoff water will be contained and removed either by portable pump or buckets into drums or other suitable containers for subsequent hazardous waste removal.
- Tents or plastic barriers will be set up for protection from inclement weather and also for privacy during disrobing. If emergency response personnel include men and women, establish separate disrobing tent/barrier stations per gender.
- Chairs will be set up where needed to assist in PPE removal and boots/booties.
- Decon pools for primary wash/rinse and wading pools for secondary wash/rinse will be established.
- A tool drop will be set up just outside the decon corridor entry point (wading pool and/or other suitable containment).
- All water used in the Hot Zone will be treated as hazardous waste (minimize water use as much as possible).
- Heavily contaminated PPE, clothing/equipment considered to be a hazardous waste may be disposed of without decontamination as required.
- Cleaning solutions must have adequate grease cutting properties and be evaluated by the degree of hazard for workers and the environment, (reference the Waste Management Plan). Brushes must be effective in removing contamination, but not damage clothing or PPE or cut/injure personnel.
- Wiping down personnel will always be done in a downward motion, away from the facial area (goggles should be left on until personnel enter the Cold Zone). Gloves off last!
- Adequate hazardous waste containment will be on hand and set up along the corridor. Once filled, containers will be closed, sealed and marked as hazardous waste before being removed to a collection area.
- Where hazardous waste is disposed of in plastic (garbage) bags, these will be collected and stored in a marked waste bin or other protective secondary containment.
- PPE items that may be reused after decontamination (e.g. rubber suits, rubber boots) will be collected and stored near the Cold Zone and made available to responders as required.
- A supply of fresh respirator cartridges will be available to responders. Used contaminated cartridges will be collected and stored in an identified container.
- A supply of facial wipes, paper towels and clean water will be maintained outside the Cold Zone for final, personal cleaning. A shower facility (if possible) should be available at this location.
- At demobilization, all materials used in the decon corridor will be marked and placed in suitable containment, including inner packaging and outer packaging, as required for further decontamination before final storage.
- Any tools and equipment that can be decontaminated will be decontaminated to allow future use and to reduce replacement cost.
- Any tools and equipment considered of no further use will be properly disposed of.

Heavy Equipment and Vehicles

Recommended equipment for decontaminating heavy equipment and vehicles include:

- Long-handled brushes for general exterior cleaning.
- Long-handled brushes, rods, and shovels to dislodge contaminated soil from tires and the undersides of vehicles and equipment.
- Wash and rinse buckets for decontaminating interior and exterior of vehicles and equipment.
- Brooms and brushes for cleaning operator areas inside vehicles and equipment.
- Containers or plastic-lined area to hold contaminated soil removed from vehicles and equipment (this can be included in overall cleanup of the Hot/Warm Zones).
- Wash solutions to remove and reduce the hazards associated with the contaminant.
- Rinse solutions to remove contaminants and contaminated wash solutions.
- Pumps for collecting wash and rinse solutions.
- Storage containers for temporary storage of contaminated solutions.
- Pressure and/or steam sprayers for washing and rinsing equipment or truck undercarriages, if applicable. Wash heavy equipment and vehicles in designated areas (e.g., lined areas, on contaminated soil) to prevent further contamination of the site.
- Containers for disposing of contaminated solutions.

Decon Corridor Equipment

Recommended equipment and cleaning supplies for establishing a decon corridor include:

- Barrier tape and pylons;
- Heavy gauge plastic drop cloths or containers with plastic liners for heavily contaminated tools, light duty equipment, duct tape and protective clothing;
- Sorbent industrial rugs to put down on walking surfaces to absorb oil and provide non-slip surface;
- Assorted long handled, soft bristled brushes to remove and rinse off contaminants;
- Buckets for wash and rinse solutions;
- Tubs, livestock tanks, or children's wading pools large enough to hold wash and rinse solutions, if applicable (size depends on the situation, but should be large enough to place a booted foot. If liquid solutions are used, these may need to be bermed/diked. Consider disposal (drains) for waste water generated);
- Lined pit or box with absorbent pads to wipe off gross contaminants and liquid contaminants;
- Containers for clothing that require laundering, and for containing waste and solutions generated by the decontamination process (e.g., plastic or metal drums, plastic-lined trash cans);
- Chairs to assist with PPE removal;
- Baby oil to be used for safely dissolving heavy oils or tar from skin and hair;
- Spray bottles, small hand operated and or bug type sprayer for applying mild detergent and water mix and/or for rinsing;
- Decon solutions or detergent and water to remove the contaminants;
- Rinse solutions to remove the contaminants and contaminated wash solutions;
- Paper or cloth towels for drying protective clothing and equipment;
- Heavy duty cleaner (Gojo, Lava or other industrial hand cleaner), soap or wash solution, wash cloths, and towels for workers;
- Paper towels, facial wipes and clean water in the Cold Zone;
- Fresh respirator cartridges, outer gloves, boot covers and tape if worker returns to duty; and
- Tents or temporary facilities for the final staging area and during extreme weather provide tents for cool-down or warming area.

Decontamination Trailers

When using a decon trailer:

- Fill fresh water tanks onsite.
- Do not tow the trailer with full water tanks.
- A licensed contractor must pump waste water tanks onsite and waste water must be disposed of in an acceptable manner.
- Ensure the trailer is located on firm stable surface.
- Fill fuel tanks onsite, and maintain a generator onsite, if needed.
- Organize electric and water hookups, if available.
- Arrange for laundering clothing offsite.
- Level the trailer to ensure its components function properly.
- Stock with personal hygiene articles (e.g., soap, shampoo, towels).
- Complete and record trailer maintenance.

Trailer Decontamination:

- Follow decontamination procedure.
- Enter decontamination trailer and remove all other personal clothing.
- Place clothing into designated area.
- Shower.
- Redress in designated area.
- Exit decontamination area without passing through the undressing area.

General Mitigation Measures for Equipment and Tools

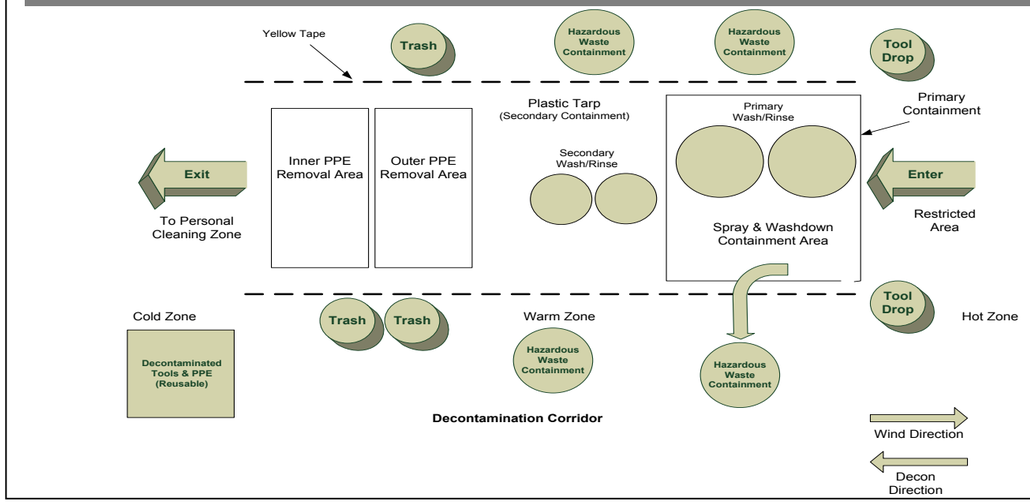
To prevent spreading contamination from equipment and tools outside the Warm Zone:

- Remove contaminated soil caught in tires and the undersides of equipment and vehicles as much as possible.
- Use pressure washers to clean the outsides and undersides of vehicles, boats (protection from invasive species and contamination) and equipment. When pressure washers are not feasible, use brushes and buckets with a cleaning solution.
- Ensure containers for storing contaminated materials are available.
- Dispose of all waste generated by cleaning equipment in an acceptable manner.
- Build bermed or lined areas to contain runoff or surface water.

Minimize waste generated from cleaning equipment as much as possible but not to the extent that it compromises adequate decontamination.

If large equipment must be moved offsite or from one location to another for more thorough cleaning, inspect the equipment to ensure contamination will not occur during transport and ensure the alternate location is pre-approved by IC.

Decontamination Corridor Diagram



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2.5 Demobilization

ALL Enbridge staff, contractors and sub-contractors are required to go through the demobilization process.

All Enbridge employees and contractors assigned to [Incident Name] are required to follow the demobilization process. Below are guidelines for completing the Demobilization form ICS-221 located in *Section 4 - Forms.*

Page 1

- Please indicate if you are an Enbridge employee, contractor or sub-contractor.
- Complete Section 1 by adding your personal information and, if applicable, the information you know about your replacement.
- Indicate the team you worked with during the response.

Page 2

- If you are an Enbridge employee enter the information about your usual office location. The two acknowledgement check boxes should be completed when you see HR during the Demobilization.
- In order to help review the incident, please add any thought about how well things went or where improvements can be made for incident response.

Page 3

- Section 2: Documentation Demobilization, and Section 3: Information Technology Demobilization, are to be completed by a Documentation Unit team member.

Page 4

- Section 4: Demobilization Acknowledgement & Approvals will require you to have your supervisor sign, and provide their title and phone number, under the appropriate section. The Documentation Unit will work with both the Information Technology and Human Resource groups to obtain their signatures.

If you have any questions about the demobilization process, or document handling procedures, please:

- Visit the Demobilization Unit at the Incident Command Center.
- Call the Demobilization Unit at [telephone].
- Call the Demobilization Unit Lead at [telephone].

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Before demobilization of the IMT can occur the following must be done:	
✓	Incident has been contained (the threat has been removed)
✓	ICS established
✓	Containment in place and effective
✓	The visual extent of impact has been identified
✓	Clean up resources are in place
✓	Stakeholder notification conducted (Including Indigenous representatives)
✓	Other plans have been considered and drafted: e.g. monitoring and sampling plan, remediation plan, wildlife mitigation plan, communications plan and waste management plan
✓	Transition Plan developed and agreed on by Incident Command/Unified Command

The demobilization should consider both the priority of release, and how activities will be transferred fully and effectively to regional operations, project teams, and/or other supporting business departments.

Resources no longer required for the response to the incident will be demobilized as rapidly as is feasible. They will be released in the following general priority.

Priority I -- Resources required to be returned to emergency services.
Priority II -- Resources mobilized from off-site
Priority III -- Local resources

Personnel:

- As appropriate, personnel demobilizing from the incident should check with their third-party contractors or Agency logistics contact for return of the radios, vehicles, materials, etc., that have been issued to them for use on the incident.
- When necessary, notify their respective third-party contractors or Agency logistics contact of their checkout from hotel/accommodations.
- As part of the demobilization process, all personnel will be required to complete a Demobilization Form that assists with the checkout process/transitioning in replacement staff and gathers insight to be used in the after-action review.
- The Documentation Unit Leader will direct all personnel to IT. IT will copy all electronic records from electronic devices and file as per records management policy.
- These steps will require sign off by the appropriate Section Chief before leaving the incident site/command post.

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2.5.1 Equipment Inventory, Return and Restock

Emergency Response Equipment

This section outlines the deployment of equipment for tiered responses and inspection of Company owned equipment.

The Company owns and maintains spill response equipment, which is listed in *Annex 1*. Periodic inspection and maintenance is performed on each piece of equipment in accordance with recommendations from the manufacturer. After an equipment deployment exercise, or actual response, each piece of deployed equipment is inspected to assess the condition and determine if any repairs need to be made. Equipment found to be defective will be repaired or replaced.

Inspection and maintenance activities are tracked on the *Facility-Owned Equipment Inspection Log found in Section 4 – Forms* as per Maximo.

General Equipment Inspection/Tests should include:

- Visual
- Operability of moveable components
- Operability of running equipment
- Seals, valves and connector integrity
- Lubrication and fluid checks.

Equipment Considerations:

- Rental Vehicles – Clean out and refuel. Return to third party contractors, Agency, or appropriate rental company if individually rented.
- Contractor equipment, as required, will be decontaminated at the appropriate Decon facility. Once Decon is completed the equipment will be returned to the contractor/owner.
- Local equipment will be the responsibility of the contractor to remove from the site. Resources requiring transport to other locations will be coordinated through Operations and Logistics. Resources will normally be transported via the most cost effective means as appropriate.
- Agency equipment, as required, will be decontaminated at the appropriate Decon facility. Agency equipment will then be returned to the appropriate agency and transportation support will be provided by logistics as necessary.

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2.5.2 After-Action Review

Post emergency activities are divided into three phases: debriefing the incident, post-incident analysis ("PIA"), and critiquing the incident response. The extent to which these phases are undertaken depends on the nature and magnitude of the spill or release. Even a small product release could elicit very detailed termination activities, such as a release of H_2S resulting in subsequent employee, or public, negative impact. Additionally, some spills or releases trigger outside agency reporting. These events would trigger the formal termination procedures outlined in this section.

Of particular importance during the After Action review is any spill that may have occurred in a high population area. Causes of the accident along with potential recurrences must be fully analyzed in order to preclude the same accident from happening again.

After termination activities, the Company can begin the planning process of safely restoring any service that has become out of service, due to the incident.

2.5.2.1 Debriefing the Incident

Debriefings should begin as soon as the "emergency" phase of the operation is completed. Ideally, this should be before Enbridge responders leave the scene, and it should include the key players such as the PIO and agency representatives who the IC determines would benefit from being involved.

Debrief Checklist		
☐	Use safety meeting attendance forms and other memoranda to document the debriefing	
☐	Inform responders exactly what hazardous materials they were (possibly) exposed to and the signs and symptoms	
☐	Identify equipment damage and unsafe conditions requiring immediate attention or isolation for further evaluation	
☐	Assign information-gathering responsibilities for a PIA and critique	
☐	Summarize the activities performed by each sector, including topics for follow-up	
☐	Reinforce the positive aspects of the response	
☐	Assign information-gathering responsibilities for a PIA and critique	
☐	Summarize the activities performed by each sector, including topics for follow-up	
	Debrief Performed By:	Date/Time

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2.5.2.2 Post-Incident Analysis

Post-Incident Analysis:	
✓	PIA is the detailed, step-by-step review of the incident to establish a clear picture of the events that took place during the incident. It is conducted to establish a clear picture of the emergency response for further study
✓	The PIA is not the same as investigations conducted to establish the probable cause of the accident for administrative, civil, or criminal proceedings. Those are usually conducted utilizing root cause or hazard and operability methodologies. One person (or office) should be designated to collect information about the response during the debriefing. Additional data may be obtained from Incident Command Post logs, incident reports and eyewitness interpretations.
✓	Once all available data has been assembled and a rough draft report developed, the entire package should be reviewed by key responders to verify the available facts are arranged properly and actually occurred. The PIA should focus on four key topics: *Command and Control, Tactical Operations, Resources and Support Services.*
✓	*Command and Control* – Was command established and were sectors organized? Did information flow from operations personnel through Sector Officers to the IC? Were response objectives communicated to the personnel expected to carry them out?
✓	*Tactical Operations* – Were the tactical operations ordered by the IC and implemented by emergency response personnel effective? What worked? What did not?
✓	*Resources* – Were the resources adequate for the job? Are improvements needed to apparatus and/or equipment? Were personnel trained to do the job effectively?
✓	*Support Services* – Were the support services received from other organizations adequate? What is required to bring support to the desired level?

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2.5.2.3 Critiquing the Incident

Critiquing the Incident Response	
A commitment to critique an all hazardous material response will improve IMT performance by improving efficiency and pinpointing weaknesses. Use the tool as a valuable learning experience (everyone came to the incident with good intentions). A good critique promotes:	
✓	Trust in the response system as being self-correcting
✓	Willingness to cooperate through teamwork
✓	Continuing training of skills and techniques
✓	Pre-planning for significant incidents
✓	Sharing information between response agencies.

Critique Format:	
A critique leader is assigned. This can be anyone who is comfortable and effective working in front of a group. The critique leader should:	
✓	Control the critique. Introduce the players and procedures. Keep it moving and on schedule
✓	Ensure that specific questions receive detailed answers
✓	Ensure that all participants follow the critique rules
✓	Ensure that each operational group presents their observations
✓	Keep notes of important points
✓	Sum up the lessons learned
✓	Follow up
✓	Following the critique, forward the written comments to management. They should highlight suggestions for improving response capabilities and alternative solutions
✓	When larger incidents are involved or injuries have occurred, formal reports shall be circulated so that everyone in the response system can understand the “lessons learned.”

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Section 3 – Table of Contents Page

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3.0 Training

Experienced, well-trained people are essential for successful implementation of this ICP. All Company employees attend Safety Orientation for New Employees at hire where they receive information on:

- The content of the information summary of the ICP (Response Plan);
- Their responsibilities under the ICP (as per the defined training matrices below); and
- Required safety training (as per the Company's safety program).

Other internal awareness and training programs include:

- Public Awareness Campaigns.
- Call Before You Dig Program.
- Annual Emergency Preparedness Week Bulletin.
- ICS Awareness Online Training.
- Security Awareness Online Training.

Specific information that is reviewed in training includes:

- The procedures for contacting the respective Control Centers, in their area, on a 24-hour basis.
- U.S reporting to the National Response Center ("NRC"), which is the sole federal point of contact for reporting oil and chemical spills. The NRC can be contacted toll-free at 1-800-424-8802 or at 202-267-2675.
- Canadian Reporting – the regulatory authority having jurisdiction (*See Annex 2*).

The training contained within this section compliments the existing safety training program.

Exercises are performed to check the effectiveness of the training, to test the Plan and refresh skills and knowledge obtained through training. Ongoing training and exercises are conducted within each Response Zone. In addition to training on the ICP, the training and exercise program provides members of the FRT with the basic knowledge, skills, and practical experience necessary to perform safe and effective spill response operations in accordance with the Plan.

The Training Coordinators, with advice from the ER Coordinators and relevant staff, will devise a training plan and schedule in response to governmental regulations and the specific requirements of the Company. The regional training plan will include a regional training matrix based off of the matrix in this plan. The regional training plan will be implemented in cooperation with local oil spill response co-ops and selected contractors. Representatives of governmental agencies and other interested parties may be invited to observe or participate in these activities as determined appropriate.

ER Training matrices information is located in the ER Training Syllabi found in Governance Document Library.

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3.1 Response Training

The Company has developed a program for facility response training.

Regional Training Coordinators are responsible for overall coordination of emergency response training identified in the table that follows, including:

- Annually identifying emergency response training needs;
- Scheduling emergency response training;
- Ensuring training records are maintained and up-to-date;
- Ensuring training missed by employees who are absent is re-scheduled;
- Summarizing mandatory emergency response training for employees annually that compares scheduled training to actual training received; and
- Reviewing training with employees at least once per calendar year.

Records

Regional Training Coordinators will retain training records in the regional/field office permanently (in accordance with that region's training record retention standard) and in the Company's Learning Management System ("LMS").

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TRAINING MATRICES

Table 1

Emergency Response Training Matrix- Regional Personnel

ICS TRAINING	Duration	Recertification	Source	All Personnel [1]	Safety Coordinator [2]	Compliance Coord [2]	Terminal Staff [3]	PLM / Field Staff [3]	Regional IMT	Office Employees	Other Response Personnel *
ICS Awareness	1	every 3 yrs	internal	R							
ICS 100/200	8	one-time	vendor		O	R	O	O	R	O	
ICS 300	16	one-time	vendor		O	R	O	O	R	O	
ICS 320	24	one-time	vendor		O	O	O	O	O	O	
HAZWOPER TRAINING +											
HAZWOPER 24hrs	24	one-time	internal or vendor		R		N/A	N/A	O		
HAZWOPER 40hrs	40	one-time	internal or vendor		O		R	R	O		
HAZWOPER Refresher 8hrs	8	annual	internal or vendor		R		R	R	O		
OPERATIONAL/TACTICAL TRAINING											
Basic Boat Operations	3-4	One-time	vendor		R	O	O	R	O		
Boat Handling Operations	8	every 3 yrs	vendor		R	O	O	R	O		
Boom Deployment	8-16	every 3 yrs	vendor		R	O	R	R	O		
Enbridge Responder Awareness	1	every 3 yrs	internal		R	O	R	R	N/A	O	
NGL Planned Ignition	8	every 3 yrs	internal		R	O	R	R	O		
Oil Recovery Under Ice (Ice Slotting)	12-16	every 3 yrs	vendor		R	O	O	R	O		
Skimmer Operations	6	every 3 yrs	vendor		R	O	O	R	O		
Tank Fire Awareness	1	annual	vendor or internal		R	O	R	O	O		
Tank Rescue	4	annual	vendor		R	O	R	R	O		
VHF Radio Operators **Canada Only**	6	one-time	vendor		O	O	O	O	O		
INSTRUCTOR/TRAINER											
Inland Oil Spill Response	24-40	one-time	vendor		O	O	O	O	O		
Cold Weather Oil Spill Response	24-40	one-time	vendor		O	O	O	O	O		

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NOTES: **R = Required attendance** (Mandatory training may not apply to all employees within the same job classification. Attendance is determined by regional management depending on the requirements of the job function).

O = Optional attendance – to be determined by regional or departmental management. Supervisors are included in the same training as the workers within their area of responsibility.

¥ = Required only for PLM Supervisors that will be in charge of on-scene clean-up operations

Ŧ = required for all U.S. personnel, and only required Canadian personnel that may respond in the U.S., for a release incident and work in the hot or warm zones

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* Other response personnel, including volunteers and casual workers (This group will not be used unless there is a prevalent need at the time of an incident. If used, all personnel will be trained onsite with the required OSHA standard).

Regulatory Terminology:
[1] = All Personnel
[2] = Reporting Personnel
[3] = Response Personnel

The titles of the groups are high-level and should be synthesized by each department and/or regional management to determine appropriate attendance based on the employee's job function during an emergency. Other departments or employees may attend if deemed they will respond to an incident.

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Table 2
Emergency Response Training Matrix- Business Support Personnel

				All Personnel [1]	Health & Safety [3]	Emergency Management	Environment	Other Response Personnel *
ICS TRAINING	**Duration**	**Recertification**	**Source**					
ICS Awareness	1	every 3 yrs	internal	R				
ICS 100/200	8	one-time	vendor		O	R	R	
ICS 300	16	one-time	vendor		O	R	R	
ICS 320	24	one-time	vendor		O	O	O	
HAZWOPER TRAINING ŦF								
HAZWOPER 24hrs	24	one-time	internal or vendor		O	N/A	O	
HAZWOPER 40hrs	40	one-time	internal or vendor		O	R	R	
HAZWOPER Refresher 8hr	8	annual	internal or vendor		O	R	O	

NOTES: R = Required attendance –(Mandatory training may not apply to all employees within the same job classification. Attendance is determined by regional management depending on the requirements of the job function).

O = Optional attendance – to be determined by regional or departmental management. Supervisors are included in the same training as the workers within their area of responsibility.

Ŧ = required for all U.S. personnel, and only required Canadian personnel that may respond in the U.S., for a release incident and work in the hot or warm zones

* Other response personnel, including volunteers and casual workers (This group will not be used unless there is a prevalent need at the time of an incident. If used, all personnel will be trained onsite with the required OSHA standard.)

Regulatory Terminology:
[1] = All Personnel
[2] = Reporting Personnel
[3] = Response Personnel

The Company's titles of the groups, expressed in the table above are high-level and should be synthesized by each department and/or regional management to determine appropriate attendance based on the employee's job function during an emergency. Other departments or employees may attend if deemed they will respond to an incident.

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3.2 Incident Command System

The Company's ICS program follows the National Incident Management System.

3.2.1 Enbridge Responder Awareness Course

Abstract	This course provides identified responders with guidance and tools when first on-scene at a potential incident.
Target Audience	Identified responders as per the matrices
Frequency	Every 3 years
Description	• Responder and public safety • Identifying hazards • How to report an incident • Reporting phone numbers for the Company and regulatory agencies • Becoming familiar with Regional ER information • Understanding roles and responsibilities within the Company • Documentation
Estimated Duration	1 hour
Recertification	3 years
Material/Delivery Type	Interactive online, test requiring 80% completion, ICS 214 and ICS 201 packet

3.2.2 Incident Command System ("ICS") Awareness Course

Abstract	This course provides the employee with an introduction to the ICS and is not intended to supersede ICS 100/200. This course outlines the basics behind activation of the ICP. This program can be used as an ICS 100/200 refresher.
Target Audience	All staff
Frequency	Every 3 years
Description	• ICS definitions • ICS organization • Roles and responsibilities • Integrated Contingency Plan • Crisis Management • Documentation
Estimated Duration	1 hour
Recertification	3 years
Material/Delivery Type	Interactive Online, test requiring 80% completion and ICS 214

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3.2.3 ICS 100/200 Course

Abstract	This intermediate level course provides identified responders with an introduction to the ICS.
Target Audience	Identified responders as per the matrices
Frequency	One time
Description	• ICS terminology and facilities • ICS organization • ICS tools • ICS 201 incident briefing packet
Estimated Duration	8 hours
Recertification	N/A
Material/Delivery Type	Instructor led, PowerPoint slide deck handout, test requiring 80% completion, ICS 201 packet, USB (with ICS forms/reactive and proactive phase), Incident Management Handbook (“IMH”)

3.2.4 ICS 300 Course

Abstract	This intermediate course provides identified responders with an expanded understanding of the basic ICS 100/200 course and provides an in-depth description of how the NIMS Command and Management System supports the management of expanding incidents.
Target Audience	Identified responders as per the matrices
Frequency	One time
Description	• Understanding the planning cycle • Developing an initial response organization • Conducting a planning meeting • Developing a detailed incident action plan
Estimated Duration	16 hours
Recertification	N/A
Material/Delivery Type	Instructor led, PowerPoint slide deck handout, in class exercise assessment, ICS 201 packet, USB (with ICS forms/reactive and proactive phase), IMH

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3.2.5 ICS 320 Course

Abstract	This intermediate level course provides identified responders with an understanding of the ICS planning process within an incident. This course includes the integration of external stakeholders, agencies, and non-government organizations.
Target Audience	Identified responders as per the matrices
Frequency	One time
Description	• Step by step incident procession from the reactive through the proactive phases • Integrate ICS theory, tools, processes, and workshops with each step of the planning cycle of an incident • Key outcomes of each work period and meeting through all phases of an incident • Incident management team roles and responsibilities
Estimated Duration	24 hours
Recertification	N/A
Material/Delivery Type	Instructor led, PowerPoint slide deck handout, in class exercise assessment, ICS 201 packet, USB (with ICS forms/reactive and proactive phase), I M H

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3.3 Operational Training

This section will address the operational training that is conducted by the Company in relation to established safety standards. The Company does not train to fight tank fires. Terminal personnel are trained to recognize tank fires and activate response. The course descriptions below provide detail regarding the content of the tank courses.

3.3.1 Tank Fire Response/Strategies Course

Abstract	To familiarize personnel with response strategies, equipment and resources.
Target Audience	All field staff that would respond to a tank fire.
Frequency	Every 3 years
Description	The purpose of this course is to provide personnel with the knowledge and tools to recognize and to safely deal with tank fires, within established Enbridge guidelines. Responders to tank fires must have the ability to recognize the hazards of an emergency situation and recognize when it is unsafe to be present in the situation. • Identify a minimum of three codes related to tank construction / fire safety. • Identify the consequence of inadequate ventilation of a tank exposed to fire. • Define the terms flammable and combustible liquids. • Define flash point, burning point, auto ignition point, boiling point; vapor pressure, vapor density, specific gravity. • Define boilover, frothover, slopover, BLEVE. • Explain the relationship of LEL/UEL. • Describe the difference(s) between vent fires, seal fires, fully involved fires, and spill fires. • Given a specific type of tank, explain its fire safety features and its fire hazards. • Identify a minimum of three benefits to site specific planning. • Identify the five steps involved in pre-planning. • Explain the potential fire hazards associated with tank confinement. • Describe the potential fire hazards associated with ancillary tank equipment. • Define the three types of fire suppression systems utilized in tank fires. • Given a tank fire scenario and utilizing the site specific Pre-Fire Plan, implement Enbridge's ICS. • Given a tank fire scenario, identify the type of and the application methodology of the site specific required foam.
Estimated Duration	4 hours
Recertification	3 years
Material/Delivery Type	Instructor led, student handbook, PowerPoint presentation, Terminal Pre Fire Plans, tank information sheets, product MSDS, terminal map/layout, Book 2 – Evacuation Zones

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3.3.2 Tank Rescue Course

Abstract	To ensure that workers who conduct safety watches are trained on the engineered systems used by Enbridge.
Target Audience	Operational, field staff and on-call employees
Frequency	Annually
Description	The purpose of this course is to provide personnel with the knowledge and tools to recognize and to safely deal with tank rescue, within established Enbridge guidelines. Responders must have the ability to recognize the hazards of an emergency situation and recognize when it is unsafe to be present in the situation. • Prepare safety watch to retrieve entrant • Rescue pre-plan • The safe use of rescue equipment • Recognize and manage risk during rescue • Use of engineered, swing davit arm
Estimated Duration	4 hours
Recertification	Annually
Material/Delivery Type	Instructor led, student handbook, PowerPoint presentation, hands-on practice with rescue equipment

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3.4 HAZWOPER Training

OSHA's Hazardous Waste Operations and Emergency Response (U.S.) sets minimum training and/or competency requirements for responders who are exposed to or potentially exposed to hazardous substances including hazardous waste.

Canadian employees will be required to complete the appropriate training course based on their potential job duties for a cross border response. This may also occur at the destination in the US.

The table below provides an overview of responsibilities for the training program.

Emergency Management Department	• Establishing and maintaining the HAZWOPER standard • Approving all vendors and in-house training in accordance with OSHA standards in *29CFR§1910.120* and the OSHA recommendations for instructors in *29CFR§1910.120*; Appendix E "*Training Curriculum Guidelines*"
Operational Training Department	• Tracking training records for all participants • Maintaining computer based training modules • Developing curriculum for in-house training
Regional Training Coordinators	• Ensuring competent external vendors provide training • Ensuring training records are maintained and are up-to-date • Annually identifying employees that are required to attend training • Scheduling "HAZWOPER" training • Ensuring employees absent from scheduled training are re-scheduled • Responsible for the overall coordination of the delivery of HAZWOPER courses • Ensuring the initial training program will be no less than the 24 hour or 40 hour course time requirement, and no less than one-third (⅓) of the hours will be dedicated to hands-on training • Regional Training Coordinators will retain training records in the regional/field office permanently (in accordance with that region's training record retention standard) and in the Company's Learning Management System ("LMS")". • Determine the courses/topics that will be covered as part of the annual 8 hr HAZWOPER refresher in conjunction with the Regional Emergency Response Coordinator.

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The table below outlines response personnel HAZWOPER responsibilities.

Contractors	• All contractors responding to a spill/release that involves the Company will be required, by their contracts, to satisfy the HAZWOPER training requirements of *29CFR§1910.120* for their positions.
New Employees	• New employees that can provide a certificate of completion of a previous HAZWOPER course along with records of annual 8 hr refresher courses are not required to complete the initial training again. The previous training must be from an instructional company/institution that is currently
Current Employees	• Previous work experience and/or training that an employee has had equivalent to the initial training required in this standard, shall be considered as meeting the initial training requirements. Equivalent training includes the training that existing employees might have already received from actual site work experience. Current employees are still required to attend annual eight hour (8) refresher training. Approval for previous work experience and/or training is the responsibility of the QI/Management or designee.
Casual Labourers	• Casual laborers will generally not be hired, but may be employed by the Company's response contractors or other response organizations. Contractors will be responsible for providing the appropriate HAZWOPER training to these laborers prior to their involvement in response operations.
Volunteers	• Normally, the Company will not hire and/or train volunteers for work on an oil spill response incident. Consequently, the Company will refer volunteers to appropriate provincial/state and/or local agencies or organizations that are set up to handle volunteers. In addition, the Company will refer volunteers to appropriate wildlife rescue agencies or contractors, such as the International Bird Rescue Research Center, which may be contracted by the Company to work on the spill cleanup. • In the event that the Unified Command approved "volunteers", the IAP will include them as resources with scope of work, training and PPE as required.
Specialist Employees	• Specialist employees are experts who would provide technical advice or guidance during response to a spill incident. Examples of such specialists might include chemists, biologists, industrial hygienists, physicians, or others with skills useful during a spill response operation. Such persons must receive appropriate training or demonstrate competency in their specialty annually. There are no specific requirements on training content or hours of training for these persons except that they must have whatever training is necessary to maintain competency in their specific area of expertise. Training and demonstration of competency for skilled support personnel and specialists should be documented.
Waste Handling Training	• Field operations personnel receive extensive regulatory-required training in HAZWOPER, HAZCOM, emergency response, firefighting, and other areas as described in this section. Employees at sites which generate hazardous waste receive additional orientation and training specific to hazardous waste regulatory requirements, and hazardous waste emergency response. Site emergency coordinators (qualified individuals) also receive additional training on incident command systems.

3.4.1 HAZWOPER Course Descriptions

The table on the following page describes the overview of the HAZWOPER courses as well as the annual refresher topics.

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	24 HOUR INITIAL HAZWOPER COURSE	40 HOUR INITIAL HAZWOPER COURSE
Abstract	This classification is considered the Enbridge Responder Operations Level training. Individuals are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading and prevent exposures.	This classification is considered the Hazardous Materials Technician Level training. Individuals with this training will assume a more aggressive role than an Enbridge responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance.
Target Audience	For individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for purposes of protecting nearby persons, property or the environment from the effects of the release.	For individuals who respond to releases or potential releases for the purpose of stopping the release.
Frequency	One time	One time

Description	Includes:
	• Legal rights and responsibilities;
	• Hazardous materials regulatory overview;
	• Principles of toxicology;
	• Hazard and risk assessment;
	• Hazardous materials classes and physical hazards;
	  ◦ Characteristics and hazards of an oil spill
	• Identification systems;
	  ◦ Control and mitigation strategies of an accidental release (fire, explosion, toxicity, environmental damage, etc.)
	• Associated physical hazards;
	• Respiratory protection;
	• Personal protective equipment; and
	• Principles of decontamination
		Includes:
		• All of the 24 hour initial training program topics and;
		• Air and environmental monitoring;
		• Site control, supervision and incident management;
		• Response and site operations;
		• Review of conditions that are likely to worsen emergencies such as facility malfunctions or failures and appropriate corrective actions;
		• Hands-on practice of a minimum of decontamination, material handling, and source control (plugging/patching/over-packing, etc.)

Estimated Duration	24 hours and includes one day of actual field experienced directly supervised by a trained, experienced supervisor.	40 hours and three days of actual field experienced directly supervised by a trained, experienced supervisor.
Note	Supervised Days for Initial Training: Personnel that complete either the 24 hour or 40 hour initial training must complete the specified supervised days of field work. Those days shall be recorded on a form created and maintained by the Operations Training Department and stored in the company LMS. The activities that qualify for inclusion in the supervised days can be any of the topics listed in each of aforementioned course topics listed	
Re-certification	**ANNUAL REFRESHER** Each employee is required to attend an eight (8) hour refresher annually to include the above listed topics. No more than three topics of the 40-hour initial course may be duplicated in any given two year training cycle unless there has been a change in operations, for example; a change in air monitoring, respiratory or hearing protection equipment. Refresher training should include, at a minimum, the following topics and procedures: • Review of and retraining on relevant topics covered in the 40-hour course; • Update on developments with respect to material covered in 40-hour course; • Review of changes to EPA or OSHA standards or laws; • Introduction of additional subject areas as appropriate; • Hands-on review of new or altered PPE or decontamination equipment or procedures; • Review of newly developed air and contaminant monitoring equipment; and • Critique of the past year's incidents that can serve as training examples for future work situations.	
Material / Delivery Type	All HAZWOPER COURSES: Trainer led, Participant Handbook, appropriate certification (classroom and practical evaluation)	

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3.5 Response Exercise Program

Experienced, well-trained people are essential for successful implementation of this ICP. The exercise program is intended to provide employees of the Company with the basic knowledge, skills and practical experience necessary to perform safe and effective incident response operations.

The Company response exercise program is designed to be consistent with the exercise requirements as outlined in the PREP Guidelines, with guidance using the LP Emergency Management Exercise Design Guide (modelled after the HSEEP version). Refer to the LP EM Exercise Design Guide for the use of some HSEEP Core Capabilities. Participation in this program ensures that the Company meets all federal exercise requirements as this guideline has been adopted by Enbridge in the U.S. and Canada. The Exercise Design Guide includes the use of Core Capabilities, which are distinct critical elements necessary to achieve the specific mission areas of prevention, protection, mitigation, response, and recovery, especially for local authorities in the US. All LP Regions are encouraged to include them in exercise design.

The primary elements of the Company exercise program are outlined below in the "*Quick Reference Guide*".

All exercises and actual responses will be critiqued by the Exercise Director or Incident Commander or their designee. If appropriate, the information derived from the post-exercise or post-event evaluation After-Action Report/Improvement Plan ("AAR/IP") will facilitate ICP revisions as necessary. Recommended revisions will be forwarded to the LP Emergency Management (LP EM) Department lead.

A single actual response or exercise may satisfy more than one type of exercise requirement (i.e., an actual response could give credit for an unannounced exercise, an equipment deployment, internal notification, and qualified individual notification).

Key Program Elements:

- The exercise year for all Company facilities will be from January 1 to December 31.
- All Regions must exercise all 15 core components outlined in the PREP Guidelines at least once during each triennial cycle.
- Regions will employ a "crawl-walk-run" exercise progression, using discussion-based exercises prior to operations-based exercises
- Ensure site sensitivity analysis has been completed. This requires significant warning time to the Environment Department
- LP will satisfy regulatory requirements on both sides of the border. For example, the NEB requires a full scale exercise every three years. This will be achieved by all regions, with an FSE schedule coordinated by LP EM
- Canadian regions will update their exercise information in the exercise database at least 60 days prior to the conduct of an exercise (in accordance with NEB Order SO-E101-003-2013) and thereafter, for all regions, every quarter.

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3.5.1 Exercise Format and Procedures

When conducting exercises it is strongly recommended that the Exercise Planning Team invite external organizations to observe and/or participate once the region feels confident in doing so, employing the "crawl-walk-run" progression in training and exercise conduct. Example organizations are listed below:

The following is a list of suggested organizations that should be invited to exercises:	
✓	Federal Agencies having jurisdictional responsibility during a spill or emergency
✓	Provincial/State/Territorial agencies having jurisdictional responsibility during a spill or emergency
✓	Local agencies having jurisdictional responsibility during a spill or emergency
✓	Other interested entities that may play a critical role during a spill or fire (e.g. Indigenous Representatives, Local Utilities, other pipeline companies, spill contractors)
✓	Evaluators provide an unbiased observation of the exercise and document their observations accordingly. Evaluators should avoid interaction with exercise participants. Evaluators can be internal from the company or can be from any of the agencies listed above.

3.5.2 Company Facility Requirements

Emergency exercises and drills for training and regulatory requirements are required to be conducted at facilities as outlined in the PREP Guidelines that the Company follows; please see *3.6.8 Quick Reference Guide* for type and frequency of exercises required. Security exercises requirements are contained in the LP Security Management Plan.

3.5.3 Types of Exercises

	Exercise Type	Description
Discussion - Based	Seminar	Provides presentation of new or current plans, resources, strategies, concepts, procedures or tactics.
	Workshop	Achieves specific goal or builds upon a policy or guideline (e.g. exercise objectives, standards, policies, plans).
	Tabletop Exercise ("TTX")	Validates plans and procedures and provides experience for participants by using a scenario to drive discussions.
	Game	Explores decision-making process and examines consequences of those decisions. Infrequently used by Enbridge.
	Drill / Equipment Deployment	Focuses on a single operation or function of an agency or several agencies. Maximizes on-the-job training benefits.

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Operations - Based	Functional Exercise ("FE")	Evaluates plans, functions, capabilities, and staffs of Incident Command, Unified Command, intelligence centers, or other multi-agency coordination centers. (e.g. Emergency Operations Centers, incident command posts, etc.). This type of exercise does NOT incorporate "boots-on-the-ground" activities.
	Full-Scale Exercise ("FSE")	Same as FE, but with actual deployment of field personnel; includes mobilization of operational and support resources, conduct of operations and integrated elements of exercise play.

3.5.4 Exercise Design Guide

This document, which is aligned with the HSEEP model, explains the suggested process to design any exercise in the Company. Included are job-aids for exercise designers to use and sample exercise packets. This guide may be used on all exercises regardless of size or complexity.

3.5.6 Regional Management

Regional Management is accountable for ensuring emergency response exercises are conducted in accordance with the table below *(3.5.8 Quick Reference Guide).*

3.5.7 Oil Spill Removal Organization Exercise Record

The QI/Regional Management or designee shall contact their contracted certified OSRO and ensure that **one** of the following has taken place:

- The OSRO has completed the required exercise(s) per the OSRO Classification Program and provided copies of the exercise(s) to the region; or

- If the Company has exercised with the OSRO for the minimum requirements set forth in the most current version of the PREP Guidelines. It is expected that each region shall exercise with their recorded OSRO at least one time in the triennial period.

Documentation provided to the regions for OSRO-conducted exercise(s) shall be maintained by the Regional Training Coordinator permanently in a manner for ready access. A copy of this documentation is to be forwarded to LP EM each year.

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3.5.8 Exercise Quick Reference Guide

Exercise Type	Frequency	Required Participants	NPREP Reference and Remarks
		Discussion Based	
Qualified Individual/Regional On-call Notification Exercise	Quarterly	QIs, Regional On-call staff (Canada)	• Paragraphs 2.3.1., and 2.3.8.2. • QIs are not mandated in Canada, therefore regional on-call staff will be called • At least 1 exercise/year will occur outside normal business hours
Table Top Exercise (TTX)	Annual	Regional IMT	• Paragraph 2.3.8.2. • Completion of PREP components over a triennial cycle • Minimum of one IMT exercise in a triennial cycle will involve the simulation of a worst case scenario • 75% of IMT as defined in ICP will be exercised • FRT TTXs are optional
Unannounced Exercise	Annually	IMT Functional Exercise and/or TTX and/or FRT Equipment deployment	• Paragraph 2.3.7. and 2.3.8.2. • **T**his may also include a Government-Initiated Unannounced exercise; • A real incident is acceptable; • 75% of IMT as defined in ICP, or FRT, will be exercised
		Operational	
Equipment Deployment	Annually/FRT	Field Response Team	• Paragraph 2.3.6., 2.3.6.6, and 2.3.8.2. • Regions to confirm number of FRTs; • Minimum 75% participation of FRT; • Key ER equipment to be used, including dedicated ER equipment. May also include OSRO equipment; • Maximo to be updated as proof of "test" of dedicated ER equipment
Full Scale Exercise (FSE)	Once/3 years/Region	IMT, FRT, Support department staff (latter as required)	• Scheduling of FSEs to be coordinated by LP Emergency Management • 75% of IMT, as defined in ICP, and FRT will be exercised
Security	Once annually per region/per critical site	Staff from Critical site	• This is an LP requirement as indicated in the LP SMP, • One exercise will suffice if personnel from all Critical Facilities in a region attend • Cyber-security is out of scope
Exercise Type	**Frequency**	**Required Participants**	**NPREP Reference and Remarks**

Environmental Emergency (E2) Exercise	Annually	IMT and/or Terminal Staff and/or FRT	• Only those regions with a Schedule 1 product designated under Enviro Canada E2 regulation
			• 1 exercise/site/year, ensuring a component of the E2 plan is exercised each year;
			• At the end of the 5 year cycle, all components of the E2 plan need to be exercised.
			• Exercise Type: The exercise can be an Equipment Deployment with a Command & Control component, or a Full Scale Exercise. The exercise will include:
			  o Scope: Area Operations-run (or equivalent);
			  o On-call Area Operations Chief (or equivalent) is the IC;
			  o Activities:
			  ▪ Notification,
			  ▪ Activation,
			  ▪ Deployment of ER equipment and others by PLM/FRT, and
			  ▪ Evacuation of staff
			• E2 exercise could be included as part of Terminal Evac Drill (regional decision);
			• The E2 exercise can also satisfy the NEB-required FSE (see FSE requirements)

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US Only – Operational cont.			
Exercise Type	**Frequency**	**Required Participants**	• **NPREP Reference and Remarks**
Area Exercise	Upon Request by US regulator	IMT and/or FRT and/or E3RT	• Paragraph 2.4; • Goal of the PREP is to conduct an Area FE/FSE for each ACP during quadrennial cycle; • An industry plan holder that participates in an Area FE/FSE should not be required to participate in another Area FE/FSE for a minimum of six years; Exercises that cross an Enbridge regional boundary, or that cross the international border, will be coordinated by LP EM.
Exercise Type	**Frequency**	**Required Participants**	**NPREP Reference and Remarks**
Government Initiated Unannounced Exercise (GIUE) (Functional Exercise and/or Equipment Deployment)	Not more than once/36 mo	TBC by PHMSA	Paragraph 2.3.7.2.

NOTE: After an equipment deployment exercise each piece of equipment is inspected to assess the condition and determine if any repairs need to be made. Preventive maintenance is performed on each piece of equipment in accordance with recommendations from the manufacturer and the LP EM Preventative Maintenance Guide. Equipment found to be defective will be repaired or replaced.

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3.5.9 Emergency Response Exercise Report

All exercise records will be maintained in the LP Emergency Response exercise database. See paragraph 3.6 for the updating of exercise information on the exercise database. This includes the completion of records indicating the completion of core components identified in the National Preparedness for Response Exercise Program Guidelines in the EGRET.

3.5.10 Internal Exercises

Internal exercises are those that are conducted wholly within the Company. The internal exercises test the various components of the response plan to ensure the plan adequately meets the PREP Guidelines requirements for spill response which fall under *OPA '90* in the U.S. and surpass the requirements outlined by the *NEB Onshore Pipeline Regulations* in Canada

All of the internal exercises, with the exception of the U.S. Government-Initiated Unannounced Exercises ("GIUE"), will be self-evaluated and self-certified.

3.5.11 External Exercises

The external exercises go outside the Company to test the interaction of the Company with the response community. The external exercises will test the Company's entire plan and the coordination with members of the response community necessary to conduct an effective response to a pollution incident.

External exercises include area exercises and government-initiated unannounced exercises.

An area exercise is conducted by the EPA, USCG, DOT/PHMSA and industry working in cooperation to exercise the ICP. This is a large-scale exercise that is planned and evaluated by all parties involved. All area exercises will be coordinated by LP EM.

Government regulatory agencies have the authority to direct the Company to participate in a GIUE. The Company must comply unless such an exercise would result in safety hazards. The cost of the GIUE is the responsibility of the Company.

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3.5.12 Credit for Actual Response

Enbridge may take credit for responses to actual spills or releases, or to significant threats of a spill, instead of conducting exercises. The response must be evaluated using guidance in the Exercise Design Guide. The lead evaluator must determine which exercise requirements were met during the response. This determination should be based on whether the response effort would meet the objectives of the exercise requirements as listed in the PREP Guidelines.

For regions in Canada taking credit for an actual incident for the purposes of reporting against NEB performance measures, the incident must take the place of a planned exercise in the applicable region in order to take credit for an NEB Performance Measure.

Credit may also be taken for a non-spill incident but only if:
• The IMT was activated;
• The incident had the significant threat of a release. e.g. a wildfire, tornado etc.

For non-spill incidents, the same requirements above apply.

Documentation for credit purposes will include (but not be limited to):

	Documentation for credit purposes will include (but not be limited to):
✓	ICS 201 Packet • Type of exercise/incident • Date and time • Description of exercise/incident • Objective of exercise/incident
✓	Incident Action Plan(s) (if applicable)
✓	Hot Wash Meeting Minutes
✓	Participant (Responder) Feedback/Critique Forms • Company Personnel • Contractor Personnel (if available)
✓	After Action Report (AAR)/Improvement Plan (IP) • Facility-Owned Equipment Inspection Log (drills and full scale exercises)
✓	PREP Components Evaluation Worksheet
✓	Signature of IC or designee completing reporting

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3.6 Third-Party Awareness Training

The Company considers various stakeholders when designing and conducting training across the pipeline system.

Target Audience within counties of operations	
✓	Fire departments' training officers and chiefs
✓	Police departments' training officers and chiefs
✓	Sheriff's departments' training officers and chiefs
✓	County Emergency Management training officers and chiefs
✓	Local Emergency Planning Committees /Community Emergency Managers
✓	911 Dispatch Centers/Public Safety Answering Points ("PSAPs")

3.6.1 U.S. Third-Party Training

Enbridge's emergency responder education program was developed to improve interactive, engaging, industry leading training for third-party emergency responders in close proximity to the companies' areas of operation. This education program aims to arm responders with the information they need to effectively and safely respond to a pipeline emergency involving an Enbridge Pipeline or facility.

Content addresses the following API RP 1162 elements:	
✓	Pipeline purpose and reliability
✓	Awareness of hazards and prevention measures
✓	Emergency preparedness communication
✓	Potential hazards
✓	Pipeline location information and availability of National Mapping Pipeline System 
✓	How to get additional information

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3.6.2 Canadian Third-Party Training

Emergency Response agencies are those that have the potential to respond to an incident or emergency involving an Enbridge facility. Specific agencies targeted include fire departments, police, emergency responders, hospitals, EMS and municipal emergency response coordinators.

Enbridge meets with these stakeholders face-to-face on an annual basis. During these meetings, Enbridge representatives update the Public Awareness Contact Form- Emergency Response Agencies. As well, a list of important information is discussed and documented in a checklist. At these meetings, emergency responders are supplied with a letter from the Region, the Enbridge "Pipeline safety and emergency information for emergency responders" brochure, the Emergency Responders Online Education Program brochure, the "Pipeline safety and emergency information for healthcare providers" sheet (medical facilities only), the Pipeline to Safety Video, and promotional items with pipeline safety contact information.

During face-to-face visits, the Company encourages emergency responders to undertake the Emergency Responders Online Education Program, as well as to have other responders at their agency take the course as well. Enbridge is currently rolling out the 911 dispatchers training module which will be offered to 911 dispatchers in Canada.

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Section 4 – Table of Contents

The forms and templates have been developed by the Company for use during an emergency response where applicable.

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Section 4 – Table of Contents

ENBRIDGE	Receiving Emergency Information	ICP 001

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Purpose: To be used by any employee receiving emergency information on a potential incident or in preparation to attend the emergency location as an early responder.

Notification		
Date and Time of Notification:		
Name of the Employee Receiving Call:		
Caller		
Name of Person Reporting :		
Caller's Location:		
Caller's Telephone # *(next 2 hours)*		(Home):
Caller's Address:		
Emergency Description		
Condition Observed *(spill, cloud, odor, etc):*		
Facility Involved, Location or Land Description:		
Date and Time Incident Observed:		
Nearest Community:		
Local Directions to Site:		
Nearest River, Stream, Lake *(direction & distance):*		
Other Helpful Information *(weather, wind, roads, public interest, injuries):*		
Emergency Reporting		
Did Caller Notify Community Emergency Responders or Other Agencies:		(Time of Call):
Are other Emergency Response Agencies On-Site or En-route *(provide details):*		

Internal Reporting	
If this is a potential emergency and you are the first Enbridge point-of-contact, call the Control Centre at:	
US Regions 1-800-858-5253	**Cushing Control Centre** 1-918-223-2461
CND Region 1-877-420-8800	**Enbridge Media Hotline Canada** 1-888-992-0997
Athabasca and Western Region 1-888-813-6844	**Enbridge Media Hotline U.S.** 1-800-496-8142
In Quebec 1-780-420-8899	
North Dakota Region 1-888-838-4534	

Other Information	
Give Warning Information for NGL/Crude oil if appropriate *(see Form B – Warning Information)*	

ENBRIDGE	Initial Response Checklist	ICP 002

Purpose: To be used when exploring a suspected or reported emergency. Safe work practices will be followed per the following guidelines (the order of these actions will depend on the situation).

EXPLORE- To be reviewed by the First Responder prior to taking any immediate action.	
☐	Notify Senior staff on-site immediately if a pressure drop has been observed or a leak is suspected and stop all product transfers. Close all automatic isolation valves, if available.
☐	Conduct a field level hazard assessment to identify and mitigate all hazards including potential for fire, explosion, and hazardous toxic vapors. • Determine the wind direction and approach cautiously from upwind. • Explore the suspected release area only when wearing appropriate PPE using the buddy system if possible. • Ensure safety of personnel in the area. • Eliminate or shut off all potential ignition sources in the immediate area • Use intrinsically safe equipment (e.g., flashlights, two-way radios, gas detectors with audible alarms).
☐	If appropriate, request surveillance fly-over to determine: • If there is any abnormal activity and dead vegetation in the vicinity of a pipeline; • Size and description of oil slick; • Direction of movement; • Coordinates of leading and trailing edge of oil slick; • Sensitivities endangered; and • Areas of population that are threatened. If radio contact cannot be made; the line flyer will report to Company management by telephone
☐	Maintain regular/scheduled communication with the Control Centre and Regional Management/on-call person
APPROACH	
☐	If hazards cannot be safely mitigated, move to a safe upwind location, monitor the incident, and keep people out the hot zone.
☐	Are people injured or trapped? Are there outside people involved in rescue or evacuation?
☐	Are there immediate signs of potential hazards such as: • Electrical lines down or overhead? • Unidentified liquid or solid products visible? • Vapors visible? • Smells or breathing hazards evident? • Fires, sparks or ignition sources visible? • Holes, caverns, deep ditches, fast water or cliffs nearby? • Is local traffic a potential problem? • Ground conditions (select one) ☐ Dry ☐ Wet ☐ Icy
CONFIRM & CONTROL	
☐	Begin a 214A Individual log when notified of an incident and continue documenting key actions throughout the response.
☐	Determine level of response needed, hazards of product(s) involved and proper response guidelines to be followed. Confirm identification of spilled material and check the SDS sheets. Consider the following: • Assess the spill threat, site safety, and parameters such as spill volume, extent and direction of movement. • Has pipeline(s) been shut down? • Has wind direction been confirmed and windsock erected? • Has the public been protected or evacuation considered if necessary? • Have all ignition sources been identified and eliminated? • Have personal protection and safety requirements been established and communicated? • Is adequate fire protection equipment available and in place? • Are tank and VAC-truck electrical equipment properly grounded? • Have decontamination sites and procedures been established? • Are activities and events being logged/ documented? • Eliminate sources of vapor cloud ignition, consider the ignition of NGL. Shut down all engines and motors. • Establish Exclusion zone and Safe Work Areas (Hot, Warm, and Cold).
☐	If on water, consult Control Point and HCA maps for appropriate response strategies for incoming resources. • Review pipeline alignment sheets to become familiar with the location of mainline valves and elevation characteristics. • Review ESA maps for the location of any sensitive area that may be impacted (Annex 3).
☐	Once support has arrived conduct transfer of command and start preparing for tactical and planning meetings.
COMMUNICATION/NOTIFICATIONS	
☐	Initiate actions to notify government agencies including local authorities of area affected or at risk areas via the Control Centre, Regional Management or designate. • Complete notifications for emergency call-out, including regulatory agencies. This will be done by Regional Management or designate. • If excavating, has One-Call agency been notified? • Has a Preliminary Incident Report been issued? • Has a radio channel been established for communication between the site and other personnel in field? • Notify External Emergency Services as appropriate. Work with local law enforcement to make sure all personnel/citizens are a safe distance away from the hazard area. • Notify the appropriate Company management. • Advise neighboring property owners and operators of any threat to their property or personnel. • Notify appropriate federal, state and local government agencies, including local utilities.
INCIDENT COMMAND	
☐	Once it has been determined to activate the ICS, the IC will initiate the following actions: • Confirm that containment equipment and oil spill contractors have been deployed. • Integrate local evacuation plans into the Unified Command decision-making process. Work with response team once they arrive on site to establish a workable Incident Command Post and Communications Center. • Direct initial response actions • Begin development of an initial incident action plan (ICS 201 Forms).
EMERGENCY SHUT DOWN PROCEDURES	
☐	The following emergency shutdown procedures should be initiated if company personnel are threatened by the release of product from a pipeline to the environment or when coordinating activities for prompt and safe repair of the pipeline and the return to normal operating conditions: • Shutting in the line at the nearest block valves. • Notifying the nearest pump station and/or the appropriate Control Center. • Maintenance crewmembers should notify their immediate supervisor who will in turn notify appropriate Company contacts. • If the exact location of the leak is unknown, the immediate supervisor will request a line flyer, or if it is at night, manpower might be used to walk the line. Once a leak site has been located, the following information should be obtained: • Have all ignition sources been eliminated? • Are any water intakes at risk? • Are any schools, homes or commercial properties at risk and should they be evacuated? • Should access to the area be restricted (roads blocked)? If so, assistance should be requested from law enforcement agencies. • Have local response agencies been advised of the product's characteristics and handling precautions which are described in the SDSs? • Are railroads or utility companies in the area and have they been notified? • Will product flow into any waterways or roadways? • In the U.S. work with Company Environmental Department to conduct a Natural Resource Damage Assessment. The Control Center should be notified following an assessment of the release site; an evaluation should be made regarding the effect of downtime on product scheduling. Appropriate report, logs & notifications will be made.

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Incident:	**Incident Date/Time:**
Person Reporting Incident:	**Prepared:**
Person Contact Number(s):	**Version:**

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Pipeline Information and Points of Contact

Pipeline Name:	
Contact:	**Phone:**
Owner:	**Phone:**
Operator:	**Phone:**

Pipeline Specific Information

Type(s) of Product:		
Equipment Involved:		
P/L Marker of Release	**Nearest Upstream Block Valve**	**Nearest Downstream Block Valve**

Incident Information

Incident Location:	**Latitude:**	**Longitude:**
Type of Casualty:		
Total Capacity of Pipeline:	**Potential for Additional Spillage:**	
Material(s) Spilled:	**API Gravity:**	
Estimated Quantity Spilled:	**Classification:**	
Source Secured?:	**If not, Estimated Spill Rate:**	
Notes:		

Incident Status

Injuries/Casualties:		
Fire:	**Fire Status:**	**Fire Assistance:**
Holed:	**Hole Location:**	**Hole Size:**
Notes:		

General Incident Report (Pipeline)	

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Incident:	**Incident Date/Time:**
Person Reporting Incident:	**Prepared:** **at:**
Person Contact Number(s):	**Version:**

Facility Information and Points of Contact

Facility Name:	
Type of Facility:	
Number of People at Facility:	
Contact:	**Phone:**
Owner:	**Phone:**
Operator:	**Phone:**

Facility Specific Information

Type(s) of Product:	
Equipment Involved:	

Incident Information

Incident Location:	**Latitude:**	**Longitude:**
Type of Casualty:		
Total Capacity of Common Container:	**Potential for Additional Spillage:**	
Material(s) Spilled:	**API Gravity:**	
Estimated Quantity Spilled:	**Classification:**	
Source Secured?: Yes ☐ No ☐	**If not, Estimated Spill Rate:**	
Notes:		

Incident Status

Injuries/Casualties:		
Fire: Yes ☐ No ☐	**Fire Status:**	**Fire Assistance:**
Notes:		

General Incident Report (Facility)	

ENBRIDGE	Threat Checklist	ICP 005

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Date: _____

Person receiving threat/suspicious package: _____

Time received: _____

If by phone, time call terminated: _____

Phone number displayed by Caller ID: _____

Work location of person receiving threat/suspicious package:_____

EXACT WORDING OF THREAT

SUSPICIOUS PACKAGE/MAIL

Time delivered/discovered: _____

Location of delivery/discovery: _____

Who/how delivered or discovered:_____

Characteristics of package/mail (Select all that apply)

- ☐ Actual threat message
- ☐ Marked with any threatening
- ☐ Inappropriate or unusual labeling
- ☐ Strange or no return address
- ☐ Misspelled common words
- ☐ City of postmark does not match return address city
- ☐ Oil stains, discoloration or odor
- ☐ Lopsided/uneven package or envelope
- ☐ Excessive tape, string, or packing materials
- ☐ Incorrect titles or title without a name
- ☐ Handwritten or poorly typed address
- ☐ Protruding wires or aluminum foil
- ☐ Excessive postage
- ☐ Excessive weight
- ☐ Ticking sound

CALLER/SUSPECT VOICE AND DESCRIPTION (select all that apply)

Gender: ☐ Male ☐ Female

Age: ☐ Child ☐ Teen ☐ 20-29 ☐ 30-39 ☐ 40-49 ☐ 50-59 ☐ Older

Voice characteristics: ☐ Loud ☐ Soft ☐ Deep ☐ Whisper ☐ Stutter ☐ Lisp ☐ Fast ☐ Slow ☐ Normal ☐ Nasal ☐ Slurred ☐ Broken ☐ Disguised ☐ Squeaky

Accent: ☐ **Other:** ☐

Manner: ☐ Angry ☐ Excited ☐ Giggling ☐ Crying ☐ Sincere ☐ Stressed ☐ Calm

Language: ☐ Well-spoken ☐ Incoherent ☐ Irrational

BACKGROUND NOISE

Street noises:

House/residence noises:

Aircraft:

Voices:

Music:

Machinery:

Bar/Tavern:

Other:

BOMB THREAT QUESTIONS

When is the bomb going to explode?

Where did you put the bomb?

Where is it right now?

Did you place the bomb? Why?

Do you know who placed the bomb?

What does it look like?

What kind of bomb is it?

What will make the bomb explode?

What is your name?

Where are you calling from?

What is your address?

Have you noticed anyone else?

Whom do you represent?

Do you know that there are innocent people in the building that may be injured or killed? ☐ Yes ☐ No (select if either is confirmed)

NOTES

ENBRIDGE	Site Monitoring Template	ICP 006

Date:	Time:	Wind Dir.	Wind Speed	Temp.
Event Description:				

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Location Description	Time	PID / FID	H_2S	SO_2	CO	LEL	O_2	Benzene	Other	Comments
1.										
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										

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For spill response operations (as opposed to those that start from a remedial action) these plans will vary in detail as the response progresses. During the initial emergency phase, responders rely on generic emergency response plans - contingency plans - while a site-specific plan is being developed. As the response progresses into post-emergency phase recovery operations, a basic site-specific plan is used and may become quite detailed for prolonged or large cleanups. Finally, a spill response may become a fully controlled site cleanup (e.g., remedial cleanups) where a fully developed site-specific plan is developed, including detailed emergency response plans for on-site emergencies.

General – Identify and/or specify:

☐	Risks for each task in work plan	☐	Employee training assignments
☐	Protective equipment for each task/objective	☐	Medical surveillance requirements
☐	Frequency and types of air monitoring	☐	Frequency and types of personnel monitoring
☐	Sampling techniques	☐	Air monitoring instruments to be used
☐	Maintenance and calibration for instrumentation	☐	Site control measures
☐	Site map	☐	Work zones
☐	Use of “buddy system”	☐	Alerting means for emergencies
☐	Safe working practices	☐	Nearest medical assistance
☐	Decontamination procedures	☐	Emergency response plan
☐	Confined space entry procedures	☐	Spill containment program
☐	Pre-entry briefings	☐	Provisions for continual evaluation of plan

Site Characterization and Analysis:

☐	Spill sites shall be evaluated to identify specific site hazards and determine appropriate safety and health controls.

Preliminary Evaluation – Performed by a qualified person, prior to site entry, to identify and/or specify:

☐	Protection methods and site controls	☐	All inhalation/skin hazards
☐	Location and approximate size of site	☐	Description of response activity
☐	Duration of response activity	☐	Site topography and accessibility (include air and ground accessibility)
☐	Safety and health hazards anticipated	☐	Pathways for hazardous substance dispersion
☐	Status of emergency response units (rescue, fire, hazmat)		

Risk Identification

☐	Employees on site are informed of identified risks	☐	All information concerning chemical, physical and toxicological properties of each substance available to the Company are made available to the responders

Detailed Evaluation

☐	Immediately after preliminary evaluation, a detailed evaluation is conducted to determine safety controls and protection needed.

Monitoring

☐	Monitoring performed during initial entry	☐	Monitoring performed periodically
☐	Personnel monitoring performed		

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	Illumination Requirements
☐	Areas accessible to employees are lighted to levels not less than the intensities outlined below:

Foot-candles	Area of operations
5	General site areas.
3	Excavation and waste areas, accessways, active storage areas, loading platforms, refueling, and field maintenance areas.
5	Indoors: Warehouses, corridors, hallways, and exitways.
5	Tunnels, shafts, and general underground work areas. (Exception: Minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, and scaling. Mine Safety and Health Administration approved cap lights shall be acceptable for use in the tunnel heading.)
10	General shops (e.g., mechanical and electrical equipment rooms, active storerooms, barracks or living quarters, locker or dressing rooms, dining areas, and indoor toilets and workrooms.)
30	First aid stations, infirmaries, and offices.

Sanitation Requirements			
☐	Potable/ Non-potable water	☐	Toilet facilities
☐	Washing facilities	☐	Shower and change rooms
Purpose is to prepare for anticipated emergencies:			
☐	Plan is written and available for inspection		
Elements to be specified			
☐	Pre-emergency planning		
☐	Personnel roles, lines of communication		
☐	PPE and emergency equipment		
☐	Emergency recognition and prevention		
☐	Safe distances and places of refuge		
☐	Site security and control		
☐	Evacuation routes and procedures		
☐	Emergency medical treatment and first aid		
☐	Emergency decon procedures		
☐	Emergency alerting and response procedures		
☐	Critique of response and follow-up		
Additional Elements			
☐	Site topography, layout and prevailing weather conditions		
☐	Procedures for reporting incidents to: local, provincial/state, and federal government agencies		
☐	Employee alarm system is installed to notify persons of an emergency situation		
Additional Requirements Emergency Response Plan shall be:			
☐	A separate section of Site Safety and Health Plan		
☐	Compatible with federal, provincial/state and local plans		
☐	Rehearsed as part of on-site training		
☐	Current		

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ENBRIDGE	Demobilization Checklist	ICP 008

Enbridge Employee ☐ Contractor ☐ Sub-Contractor ☐

Section 1: Personnel Information

General Personnel Information			
Last Name, First Name		Start Date (DD/MM/YY)	End Date(DD/MM/YY)
Email Address	Site Phone/Cell No.	Planned Return (DD/MM/YY)	Planned End (DD/MM/YY)
Prime Contractor: N/A ☐		If You're a Sub-Contractor, Your Company Name: N/A ☐	
Location of Work Performed (specific site):		Position While Performing Work:	
Replacement's Name (if known):		Replacement's Phone/Cell No.	Replacement's Email
Replacement's Arrival Date (DD/MM/YY):		Replacement's End Date:	

Team Worked on During Incident Response			
Logistics ☐	Environment ☐	Air Operations ☐	Safety ☐
Finance ☐	IT ☐	Repair ☐	Liaison/Public Information ☐
Operations ☐	Planning ☐	Regulatory/Compliance ☐	
Recovery Branch ☐	Incident Command ☐	Staging ☐	Other _____ ☐

For Enbridge Staff Only (not applicable for contractors or sub-contractors)	
Home Office (City/Region):	Regular Office Phone/Cell No.
Citizenship: US ☐ Canada ☐ Do you have a Visa? ☐	Home Business Unit: LP ☐ MP ☐ EGD ☐ GT ☐ Corp ☐
I have copy of BU coding information for timesheet and Expenses ☐	I Understand Days of Rest ☐

Retention: Retained in the Region Permanently

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Incident Participation Review
In your opinion, what are *3 things that went well* during this response?
1.
2.
3.
In your opinion, what are 3 things that could have gone better during this response?
1.
2.
3.

Section 2: Documentation Demobilization

Data Types	Collected Y	Collected N	Network Share Name Where Docs Preserved (eg: LiveLink, Enbridge Email, Network Drive, SharePoint, File Room, Portable drive)	All Items Saved to Enbridge Network Folder		Date to be Collected if not Current Date (DD/MM/YY)
Email	☐	☐		**Y** ☐	**N** ☐	
Files	☐	☐		**Y** ☐	**N** ☐	
Papers	☐	☐		**Y** ☐	**N** ☐	
Phone	☐	☐		**Y** ☐	**N** ☐	
Other E-Devices	☐	☐		**Y** ☐	**N** ☐	
Comments:						

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Section 3: Information Technology Demobilization

Enbridge Incident Issued Laptop Returned Y ☐ N ☐	Laptop Serial Number:
User Name:	Password:
List other devices issued to you:	Did you use any portable drives? Please detail.

Section 4: Demobilization Acknowledgement & Approvals

Operations Section N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Planning Section N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Logistics Section N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Command Section N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Finance Section N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Documentation Unit N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Human Resources N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____
Information Technology N/A ☐	Name:_____ Title:_____	Signature:_____ Phone/Cell No. :_____

Retention: Retained in the Region Permanently

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APPROVAL TO CONDUCT IN-SITU BURN					
Authority	**Name and Organization**	**Approval Signature (if verbal, identify recipient)**	**Date**	**Alternate Point of Contact**	**Phone Number**
Regulatory Authority					
Unified Command					
Incident Commander (Enbridge)					
Other (Specify)					

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Confirm that all stakeholders with authority over the ability to conduct an in-situ burn are listed above and have approved the burn.		
Name (Enbridge Incident Commander)	**Signature**	**Date**

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INCIDENT INFORMATION	
Incident General Description:	
Product(s) Type:	
Product Description (*general hazards and characteristics*) (GPS/LLD):	
MSDS attached?	☐ YES ☐ NO
Estimated Volume Released:	
Incident Discovery Date/Time:	
Initial Release Date/Time (*estimated*):	
SPILL LOCATION / TRAJECTORY	
Originating Spill Location and Impacted Area General Description:	
Estimated Size of Impacted Area:	

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Estimated Potential for Further Migration and Ultimate Area of Impact	
Site Sketch Attached? *(Review Incident Records for sketch components)*	☐ YES ☐ NO
Aerial / Satellite Map Graphic Attached?	☐ YES ☐ NO
Trajectory of Spill Shown on Sketch / Graphic?	☐ YES ☐ NO
IN-SITU BURN ASSESSMENT	
List considerations that support in-situ burning at this location over manual / mechanical recovery and cleanup options:	
Product Thickness (mm)	
Product Likely to Burn? (*conduct test burn as necessary*)	☐ YES ☐ NO
Anticipate oil to remain ignitable (*fresh, not highly emulsified (>25%) or weathered*)?	
WEATHER CONDITIONS	
Weather conditions favorable for in-situ burn?	☐ YES ☐ NO
General Forecast for Next 48 Hours: (*e.g., stormy, clear, overcast, rainy, etc.*)	
Wind Speed and Direction Forecast for next 12 hours:	
Wind Speed and Direction Forecast for next 12 – 48 hours:	
Wind Speed and Direction Forecast for next 24-48 hours:	
Visibility Forecast for next 48 hours: (*sufficient for burn operations/observation is >500 ft (approximately 150 meters), ½ mile horizontal (1 kilometre)*	
IN-SITU BURN OPERATIONAL FEASIBILITY	
Operational Feasibility?	☐ YES ☐ NO
Is an operations plan (*strategy, method, resources*) and site safety plan written ? (*Attach*	☐ YES ☐ NO

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Is air support needed? Available?	☐ YES	☐ NO
Are personnel properly trained, equipped with safety gear and covered by a site safety plan?	☐ YES	☐ NO
Is a site communications plan available?	☐ YES	☐ NO
Is the release contained?	☐ YES	☐ NO
Can all necessary equipment be mobilized during the window of opportunity (*e.g., containment, igniter, residue collection equipment, fireguard*)	☐ YES	☐ NO
Can the burn be safely extinguished or controlled? (*Attach contingency plan that identifies and manages potential impacts on surrounding area in case the burn becomes uncontrolled or secondary fires arise*)	☐ YES	☐ NO
Estimated area of proposed burn:		
Attachments / Additional Information / Comments:		

SAFETY AND ENVIRONMENT CONSIDERATION		
Is there probable public safety exposure?	☐ YES	☐ NO
Are there probable environmental impacts?	☐ YES	☐ NO
Can the burn be conducted at safe distance from other response operations and public, recreation and commercial activities?	☐ YES	☐ NO
Can the public be adequately notified of the burn? (*Attach notification / communication plan*)	☐ YES	☐ NO
Are evacuations necessary? (attach proposed evacuation plan)	☐ YES	☐ NO
Is limited shelter-in-place to be done?	☐ YES	☐ NO
Is a plan to manage environmental sensitivities (*e.g., wildlife, land use, groundwater impact)* written or in progress? (*Attach if available*)	☐ YES	☐ NO

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Is particulate monitoring available? (*attach if available*)	☐ YES ☐ NO
What is the minimum public health safe distance? (*Attach method used to determine distance,* see *isolation distance table in Section 2).*	

Attach an In-Situ Burn Plan Diagram site sketch or area photo that illustrates:

- ☐ Size of burn area only (*this may or may not be different than the total impacted area*)
- ☐ Projected wind direction over the course of the burn duration
- ☐ Calculated minimum safe distances (shown as a radius around the burn location)
- ☐ Distances to populated areas (private, commercial, public)
- ☐ Evacuation and/or shelter-in-place areas (if applicable)
- ☐ Control measures and fire guard resources
- ☐ Smoke plume monitoring locations (if applicable)
- ☐ Impacted or nearby environmentally sensitive areas
- ☐ Adjacent land use

Attachments / Additional Information / Comments:

ENBRIDGE	Facility-Owned Equipment Inspection Log	ICP 010

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Equipment Location:				
Inspected By:	**Print**		**Sign**	
Inspection Date:				
Recovery Capacity (EDRC):	*E.g.: 7,645 bpd x 20% daily recovery rate = 1,529 bpd EDRC (based on a 20% efficiency)*			

Equipment Type	Description - Model, Style, Size, Capacity, Shelf Life	Qty	Operational Status	Last Deployment Date
EXAMPLE: Boom	*50' Acme 6x6 booms*	*100'*	*Good*	*7/01/11*

ENBRIDGE	National Response Centre Questions (For Reference Only)	ICP 011

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NRC 24 Hr. Incident Reporting (800) 424-8802 –

Reporting Party	
E-mail Address:	
Phone 1:	Primary | Alternate | Cell | On-Scene | Other
Last Name:	
First Name:	
Phone 2:	Primary | Alternate | Cell | On-Scene | Other
Phone 3:	Primary | Alternate | Cell | On-Scene | Other
Company:	
Organization Type:	***Private Enterprise***
Address:	
City:	
State:	
Zip Code:	
Are you calling on behalf of responsible party:	YES NO
Are you or your company responsible for material released:	YES NO

Incident Description		
Incident Date: DD // MM// YEAR	TIME:	Occurred | Discovered | Planned
Type of Incident: ***PIPELINE***		

Incident Location					
Location Description					
Address Location:					
State:					
County					
Zip Code:					
Nearest City:		Distance from Nearest City:		Units:	Miles | Kilometers
Direction: N NE NNE NWW NW E ENE ESE S SE SSW SSW SW W WNW WSW					
Range:	Section:	Township:			
Latitude: Degrees:	Minutes:	Seconds:	Quadrant:	North | South	
Longitude: Degrees:	Minutes:	Seconds:	Quadrant:	East | West	

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Pipeline Details
Pipeline Type: Transfer | Flow | Transmission | Distribution | Service | Gathering | Offshore | Lateral | Highly Volatile Liquid (HVL) | Tank | Station | Load Line | Terminal | Unknown | Other
DOT Regulated: YES NO Unknown
Underwater: YES NO
Covered/Marked: YES NO Unknown
Above or Below Ground: ABOVE / BELOW
Material Involved
Material #1
Material:
CHRIS Code: CAS Code:
Amount Released: Units: Barrel(s) | Gallons | Liter(s) | Unknown
Amount in Water: Units: Barrel(s) | Gallons | Liter(s) | Other | Unknown
Material In Water Information
Body of Water Affected: Offshore: YES NO River Mile Marker:
Tributary of: Water Supply Contaminated: YES NO Unknown
Water Temperature: Units: Fahrenheit Celsius
Wave Condition: Calm | Smooth | Slight | Moderate | Rough | Very Rough | High | Very High | Precipitous | Confused
Speed: Knots MPH
Direction: N NE NNE NWW NW E ENE ESE S SE SSE SSW SW W WNW WSW
Sheen Information
Sheen Length: Units: Feet | Inches | Yards | Miles | Meters | Kilometers
Sheen Width: Units: Feet | Inches | Yards | Miles | Meters | Kilometers

ENBRIDGE	IAP Cover Sheet	ICP 013

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Incident Name:	**Operational Period to be covered by IAP:** Period: (/ / to / /)

Approved by:

FOSC: _____

SOSC/Prov: _____

RPIC: _____

Incident Action Plan

Prepared By:	**Prepared Date/Time:**

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ENBRIDGE	Notification Status Report	ICP 014

Incident:				**Prepared By:**			**at:**	
Period:		**to**		**Version Name:**				
Organization Notified	**Phone**	**Date /Time Notified**	**Person Contacted**	**Person Contacted Email**	**Case No.**	**Follow Up**	**ETA On Site**	**Notified By**
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								
						☐Y ☐N	HR	
Notes:								

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Incident:		**Prepared By:**	**at**
Period:		**Version Name:**	
Present Conditions			
Wind Speed:		Wave Height:	
Wind Direction From The:		Wave Direction:	
Air Temperature:		Swell Height:	
Barometric Pressure:		Swell Interval:	
Humidity:		Current Speed:	
Visibility:		Current Direction Toward:	
Ceiling:		Water Temperature:	
Next High Tide (Time):		Next Low Tide (Time):	
Next High Tide (Height):		Next Low Tide (Height):	
Sunrise:		Sunset:	
Notes:			
24 Hour Forecast			
Sunrise:		Sunset:	
High Tide (Time):		High Tide (Time):	
High Tide (Height):		High Tide (Height):	
Low Tide (Time):		Low Tide (Time):	
Low Tide (Height):		Low Tide (Height):	
Notes:			
48 Hour Forecast			
Sunrise:		Sunset:	
High Tide (Time):		High Tide (Time):	
High Tide (Height):		High Tide (Height):	
Low Tide (Time):		Low Tide (Time):	
Low Tide (Height):		Low Tide (Height):	
Notes:			

ENBRIDGE	Incident Briefing Map/Sketch	ICS 201-1

Incident:	Prepared By:	at:
Period:	Version Name:	

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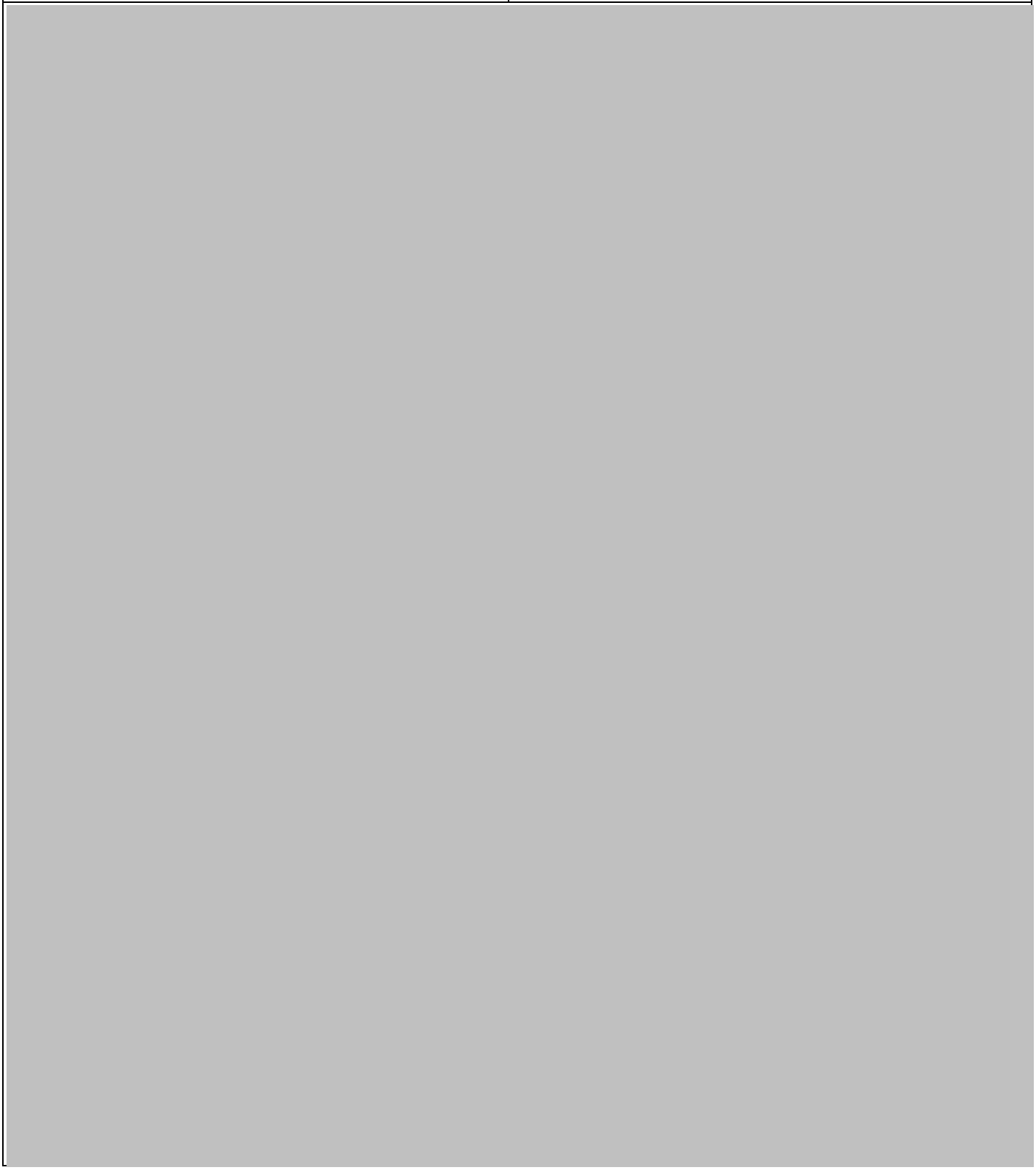

ENBRIDGE	Summary of Current Actions	ICS 201-2

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Incident:	Prepared By: at:
Period: to	Version Name:

Incident Information

Initial Incident Objectives

Summary of Current Actions

Date/Time	Action Notes

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ENBRIDGE

Current Organization

ICS 201-3 / 207

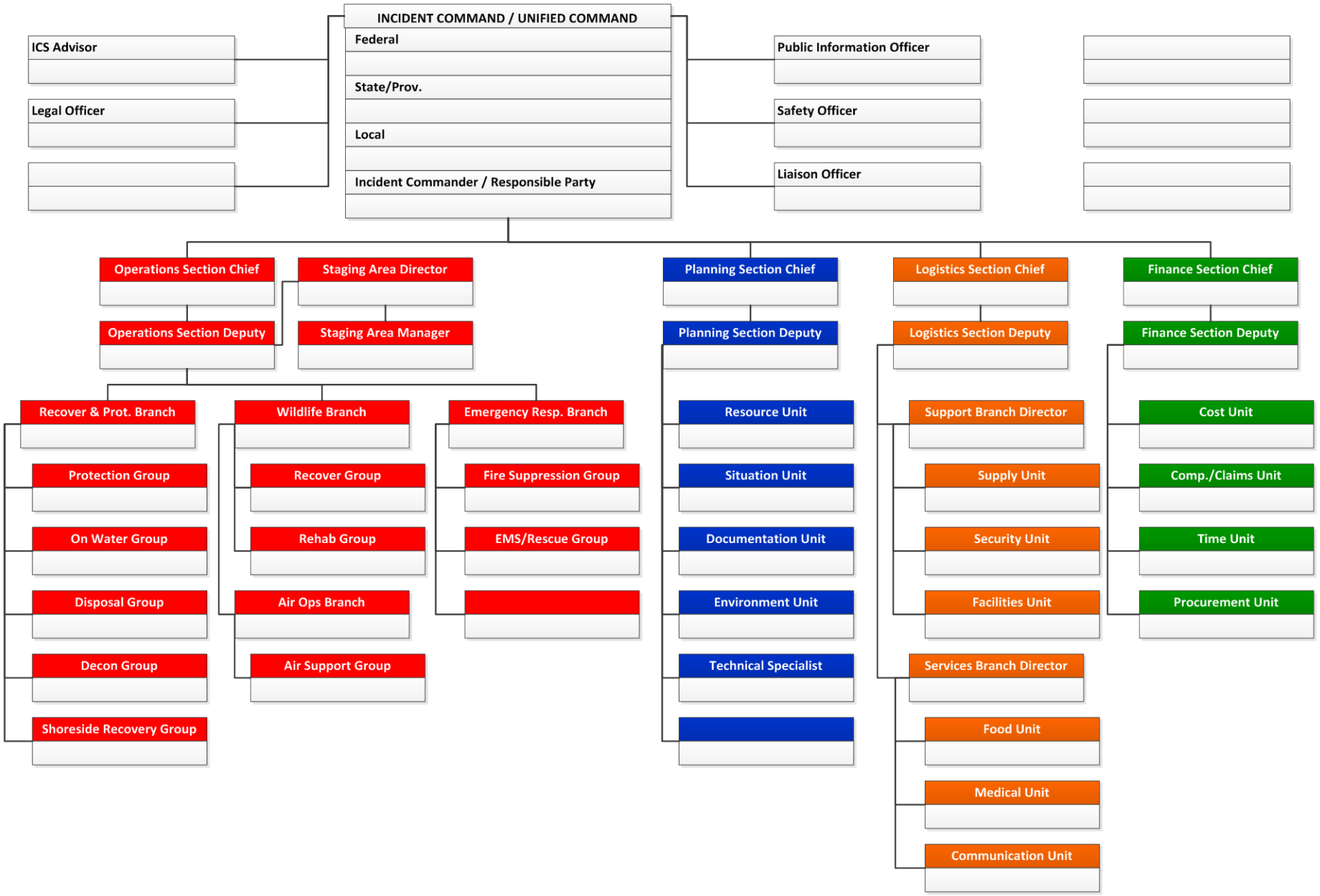

Illustration shows suggested ICS positions. ICS is scalable; the positions are filled according to the needs of the incident.
If positions are not filled, the responsibility is assumed by the Section Chief or Incident Commander.

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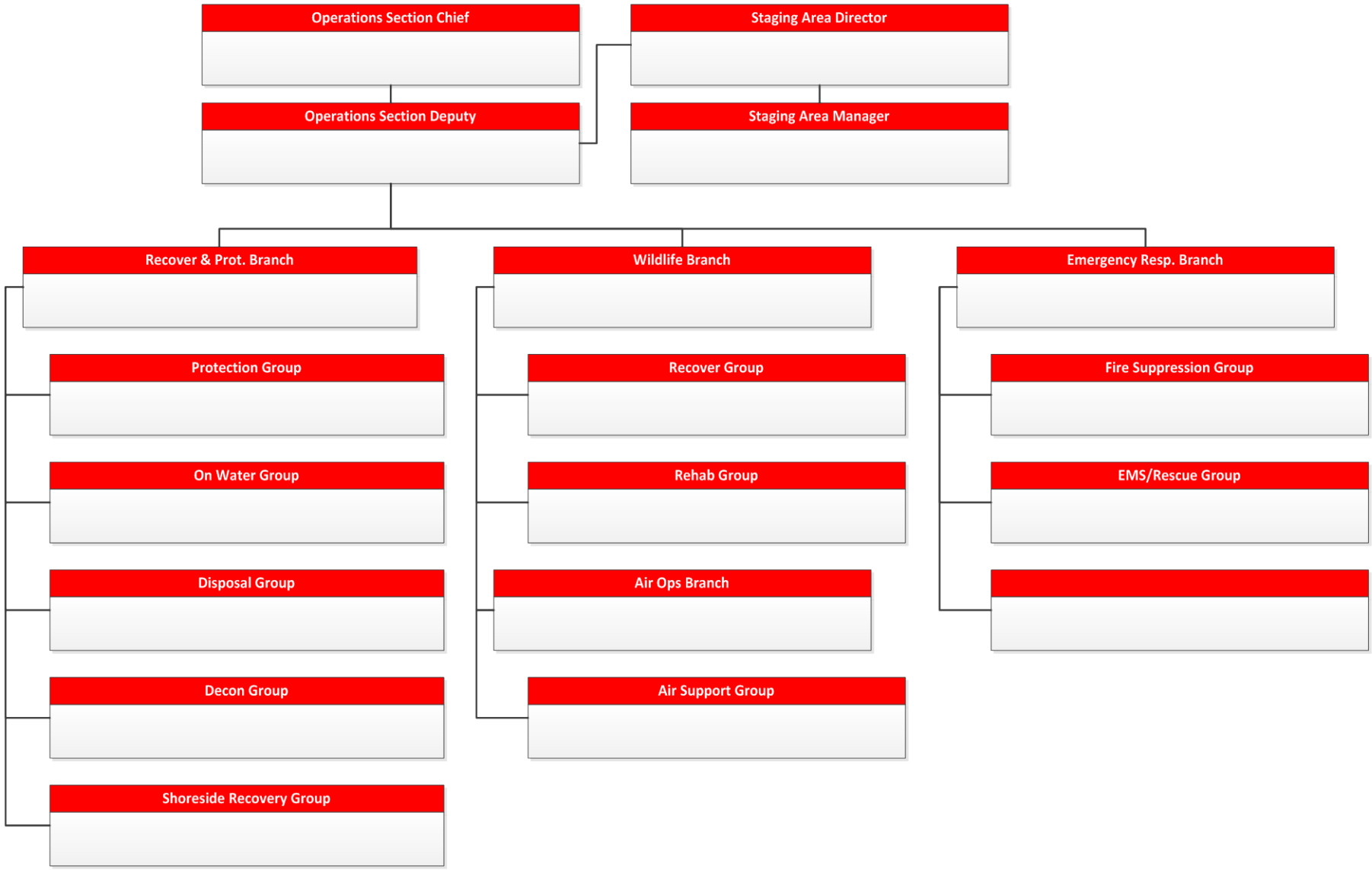
ENBRIDGE

Operations Section



Incident:					Period:			
ID	Supplier	Resource Type	Description	Quantity	Size	Area of Operation	Status	Status Date/Time

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ENBRIDGE	Site Safety and Control Analysis	ICS 201-5

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Incident:	**Prepared By:** **at:**
Period:	**Version Name:**

Site Control

1. Is Site Control set up? ☐ Yes ☐ No	2. Is there an on-scene command post? ☐ Yes ☐ No If so, where?
3. Have all personnel been accounted for? ☐ Yes ☐ No ☐ Don't Know	Injuries: Fatalities: Unaccounted: Trapped:
4. Are observers involved, or rescue attempts planned? Observers: ☐ Yes ☐ No Rescuers: ☐ Yes ☐ No	5. Are decon areas setup? ☐ Yes ☐ No If so, where?

Hazard identification, immediate signs of: (if yes, explain in Remarks)

1. Electrical line(s) down or overhead? ☐ Yes ☐ No	2. Unidentified liquid or solid products visible? ☐ Yes ☐ No
3. Wind direction across incident: ☐ Towards your position Wind Speed: ☐ Away from your position	4. Is a safe approach possible? ☐ Yes ☐ No
5. Odors or smells? ☐ Yes ☐ No	6. Vapors visible? ☐ Yes ☐ No
7. Holes, ditches, fast water, cliffs, etc. nearby? ☐ Yes ☐ No	8. Fire, sparks, sources of ignition nearby? ☐ Yes ☐ No
9. Is local traffic a potential problem? ☐ Yes ☐ No	10. Product placards, color codes visible? ☐ Yes ☐ No
11. Other Hazards? ☐ Yes ☐ No	12. As you approach the scene from the upwind side, do you note a change in the status of any of the above? ☐ Yes ☐ No
13. Remarks:	

Hazard Mitigation: have you determined the necessity for any of the following?

1. Entry Objectives:	
2. Warning sign(s), barriers, color codes in place? ☐ Yes ☐ No	
3. Hazardous material being monitored? ☐ Yes ☐ No 3a. Sampling Equipment: 3b. Sampling location(s): 3c. Sampling frequency: 3d. Peak Reading: 3e. Personal exposure monitoring:	
4. Protective gear / level:	4a. Gloves: 4b. Respirators: 4c. Clothing: 4d. Boots: 4e. Chemical cartridge change frequency:
5. Decon 5a. Instructions: 5b. Decon equipment and materials:	
6. Emergency escape route established? ☐ Yes ☐ No Route?	
7. Field responders briefed on hazards? ☐ Yes ☐ No	
8. Remarks:	

Protective Zones: record initial control perimeters (see Figure 1)

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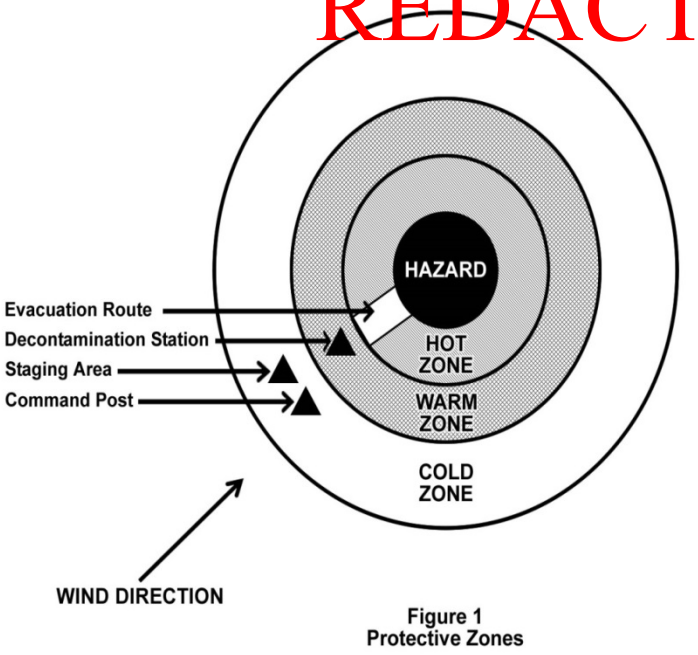

Figure 1
Protective Zones

1. Is there a Hot Zone established? ☐ Yes ☐ No
   If so, where?

2. Is there a Warm Zone established? ☐ Yes ☐ No
   If so, where?

3. Is there a Cold Zone established? ☐ Yes ☐ No
   If so, where?

4. Remarks: (Include any information on evacuation route etc.)

5. Include any site sketches or photos of the protective zones (if available):

ENBRIDGE	General Response Objectives	ICS 202

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Incident:	Prepared By:	at:
Period:	Version Name:	

Overall and Tactical Objectives	Assigned to:	Status
1. Ensure the Safety of Citizens and Response Personnel		
☐ 1a. Identify hazard(s) of spilled material		
☐ 1b. Establish site control (hot zone, warm zone, cold zone, & security)		
☐ 1c. Consider evacuations if needed		
☐ 1d. Establish vessel and/or aircraft restrictions		
☐ 1e. Monitor air in impacted areas		
☐ 1f. Develop site safety plan for personnel and ensure safety briefings are conducted		
2. Control the Source of the Spill		
☐ 2a. Complete emergency shutdown		
☐ 2b. Conduct firefighting		
☐ 2c. Initiate temporary repairs		
☐ 2d. Transfer lighter product		
☐ 2e. Conduct salvage operations, as necessary		
3. Manage a Coordinated Response Effort		
☐ 3a. Complete or confirm notifications		
☐ 3b. Establish a unified command organization and facilities (command post, etc.)		
☐ 3c. Ensure local and Aboriginal/tribal officials are included in response organizations		
☐ 3d. Initiate spill response Incident Action Plans (IAP)		
☐ 3e. Ensure mobilization and tracking of resources and account for personnel and equipment		
☐ 3f. Complete documentation		
4. Maximize Protection of Environmentally-Sensitive Areas		
☐ 4a. Implement pre-designated response strategies		
☐ 4b. Identify resources at risk in spill vicinity		
☐ 4c. Track oil movement and develop spill trajectories		
☐ 4d. Conduct visual assessments (e.g., overflights)		
☐ 4e. Develop/implement appropriate protection tactics		

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Incident:	Prepared By:	at:
Period:	Version Name:	

Overall and Tactical Objectives	Assigned to:	Status
5. Contain and Recover Spilled Material		
☐ 5a. Deploy containment boom at the spill site and conduct open-water skimming		
☐ 5b. Deploy containment boom at appropriate collection areas		
☐ 5c. Evaluate time-sensitive response technologies (e.g., dispersants, in-situ burning)		
☐ 5d. Develop disposal plan		
6. Recover and Rehabilitate Injured Wildlife		
☐ 6a. Establish oiled wildlife reporting hotline		
☐ 6b. Conduct injured wildlife search and rescue operations		
☐ 6c. Set up primary care unit for injured wildlife		
☐ 6d. Operate wildlife rehabilitation center		
☐ 6e. Initiate citizen volunteer effort for oiled bird rehabilitation		
7. Remove Oil from Impacted Areas		
☐ 7a. Conduct appropriate shoreline cleanup efforts		
☐ 7b. Clean oiled structures (piers, docks, etc.)		
☐ 7c. Clean oiled vessels		
8. Minimize Economic Impacts		
☐ 8a. Consider tourism, vessel movements, & local economic impacts		
☐ 8b. Protect public and private assets, as resources permit		
☐ 8c. Establish damage claims process		
9. Keep Stakeholders and Public Informed of Response Activities		
☐ 9a. Provide forum to obtain stakeholder input and concerns		
☐ 9b. Provide stakeholders with details of response actions		
☐ 9c. Identify stakeholder concerns and issues, and address as practical		
☐ 9d. Provide timely safety announcements		
☐ 9e. Establish a Joint Information Center (JIC)		
☐ 9f. Conduct regular news briefings		
☐ 9g. Manage news media access to spill response activities		
☐ 9h. Conduct public meetings, as appropriate		

ENBRIDGE	Organization Assignment	ICS 203

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Incident:	Prepared By:	at:
Period:	Version Name:	

Command Staff

Title	Name	Mobile	Pager	Other	Radio
Federal (FOSC)					
State (SOSC) Prov					
RP(s)					
Incident Commander					
Deputy Incident					
Safety Officer					
Information Officer					
Liaison Officer					
Intelligence Officer					

Operations Section

Title	Name	Mobile	Pager	Other	Radio
Operations Section					
Deputy Operations					
Staging Area Manager					
Recovery & Prot. Branch					
Emergency Resp.					
Air Ops Branch Director					
Wildlife Branch Director					
Branch Director					
Division/Group					
Disposal Group					

Planning Section

Title	Name	Phone	Fax	Other	Radio
Planning Section Chief					
Deputy Planning Section					
Situation Unit Leader					
Resource Unit Leader					
Documentation Unit					
Technical Specialist					
Demobilization Unit					
Check In Recorder					

ENBRIDGE	Organization Assignment	ICS 203

REDACTED COPY

Incident:	Prepared By:	at
Period:	Version Name:	

Logistics section

Title	Name	Phone	Fax	Other	Radio
Logistics Section Chief					
Deputy Logistics Section					
Service Branch Director					
Medical Unit Leader					
Food Unit Leader					
Communication Unit					
Support Branch Director					
Supply Unit Leader					
Facilities Unit Leader					
Ground Support Unit					
Vessel Support Unit					

Finance Section

Title	Name	Phone	Fax	Other	Radio
Finance Section Chief					
Deputy Finance Section					
Time Unit Leader					
Procurement Unit					
Compensation/Claims					
Cost Unit Leader					

ENBRIDGE	Assignment List	ICS 204

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Incident:	Branch:
Period:	Division:

Operations Personnel

Title	Name	Affiliation	Contact Number(s)
Operations Section Chief			
Branch Director			
Division/Group/STAM			

Incident Resources – Equipment

Supplier	Resource Type	Description	Quantity	Size	Status

Assignments

Special Instructions for Division/Group

Communications

Name/Function	Radio: Frequency/System/Channel	Phone	Cell/Pager

Emergency Communications

Medical	Evacuation	Other
Prepared by (Resource Unit Leader):	**Approved by (Planning Section Chief):**	**Date/Time Approved:**

ENBRIDGE	Assignment List	ICS 204

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Incident:	Branch:
Period:	Division:
Prepared by Signature:	Task Force:
Approved by Signature:	Group:

Tactical Objective
Description of Work
Location of Work
Work Assignment Special Instructions
Special Equipment/Supplies Needed for Assignment
Special Environmental Considerations
Special Site-Specific Safety Considerations
Shoreline Cleanup Assessment Team (SCAT) Considerations

Prepared by (Resource Unit Leader):	Approved by (Planning Section Chief):	Date/Time Approved:

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ENBRIDGE	Communications Plan	ICS 205

Incident:	Prepared By: at:
Period:	Version Name:

Phone Listing

Name	Main Phone	Fax	Other No. – Desc.	Other No. – Desc.	Radio

Radio Utilization

System	Channel	Function	Frequency	Assignment	Notes

Incident:	Prepared By: at:
Period:	Version Name:

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First Aid Stations

Name	Location	EMT (On-Site)	Phone	Radio

Transportation (Ground and/or Ambulance Services)

Name	Location	EMT	Phone	Radio

Air Ambulances

Name	Location	Doctor/Nurse/EMT	Phone	Radio

Hospitals

Name	Location	Helipad Burn Center	Phone	Radio

Special Medical Emergency Procedures

ENBRIDGE	Site Safety Plan	ICS 208

REDACTED COPY

Incident:	**Prepared by:** **at:**
Period:	**Version Name:**
Revision:	
Applies To Site:	
Products:	(Attach MSDS)

SITE CHARACTERIZATION

Water		Wave Direction	
Wave Height		Current Direction	
Current Speed		Use	
Land		Temp	
Weather		Wind Direction	
Wind Speed			

Pathways for Dispersion:

Site Hazards

☐ Boat safety	☐ Fire, explosion, in-situ burning	☐ Pump hose
☐ Chemical hazards	☐ Heat stress	☐ Slips, trips, and falls
☐ Cold stress	☐ Helicopter operations	☐ Steam and hot water
☐ Confined spaces	☐ Lifting	☐ Trenching/excavation
☐ Drum handling	☐ Motor vehicles	☐ UV radiation equipment
☐ Operational tactics	☐ Noise	☐ Visibility
☐ Electrical operations	☐ Overhead/buried utilities	☐ Weather
☐ Fatigue	☐ Plants/wildlife	☐ Work near water
☐ Other _____	☐ Other _____	☐ Other _____

Air Monitoring

%O2: _____ **%LEL:** _____ **ppm Benzene:** _____

ppm H2S: _____ **Other (Specify):** _____

CONTROL MEASURES

Engineering Controls

☐ Source of release secured	☐ Valve(s) closed	☐ Energy source locked/tagged out
☐ Site secured	☐ Facility shut down	☐ Other _____

Personal Protective Equipment

☐ Impervious suit	☐ Respirator liner	☐ Outer gloves
☐ Eye protection	☐ Inner gloves	☐ Personal floatation device
☐ Flame resistant clothing	☐ Boots	☐ Hard hats
☐ Other _____		

Additional Control Measures

☐ Decontamination	☐ Stations established as needed (e.g. safety or decontamination)
☐ Sanitation	☐ Facilities provided – OSHA 29 CFR 1910.120n
☐ Illumination	☐ Facilities provided – OSHA 29 CFR 1910.120m
☐ Medical surveillance	☐ Facilities provided – OSHA 29 CFR 1910.120fq

ENBRIDGE	Site Safety Plan	ICS 208

Incident:	Prepared By: at:
Period:	Version Name:

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WORK PLAN

☐ Booming ☐ Heavy equipment ☐ Other

☐ Skimming ☐ Sorbent pads

☐ Vac trucks ☐ Patching

☐ Pumping ☐ Hot work

☐ Excavation ☐ Obtain appropriate permits

TRAINING

☐ Verified site workers trained per OSHA 29 CFR 1920.120

ORGANIZATION

Title	Name	Telephone/Radio
Incident Commander:		
Deputy Incident Commander:		
Safety Officer:		
Public Affairs Officer:		
Other:		

EMERGENCY PLAN

☐ Alarm system: _____

☐ Evacuation plan: _____

☐ First aid location _____

Notified:

☐ Hospital		Phone:
☐ Ambulance		Phone:
☐ Air ambulance		Phone:
☐ Fire		Phone:
☐ Law enforcement		Phone:
☐ Emergency response/rescue		Phone:

PRE-ENTRY BRIEFING

☐ Initial briefing prepared for each site

INCLUDING ATTACHMENTS/APPENDICES

Attachments

☐ Site Map
☐ Hazardous Substance Information Sheets
☐ Site Hazards
☐ Monitoring Program
☐ Training Program
☐ Confined Space Entry Procedure
☐ Safe Work Practices for Boats
☐ PPE Description
☐ Decontamination
☐ Communication and Organization
☐ Site Emergency Response Plan

Appendices

☐ Site Safety Program Evaluation Checklist
☐ Confined Space Entry Checklist
☐ Heat Stress Consideration
☐ Cold Stress and Hypothermia Consideration
☐ First Aid for Bites, Stings, and Poisonous Plant Contact
☐ Safe Work Practice for Oily Bird Rehabilitation
☐ SIPI Site Pre-Entry Briefing
☐ Personnel Tracking System

ENBRIDGE	Incident Status Summary	ICS 209

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Incident:	Prepared By:	at:
Period:	Version Name:	

Type of Incident

☐ Oil Spill	☐ Hazardous Material(s)
☐ Search and Rescue	☐ Serious Incident/Security Threat
☐ Natural Disaster	☐ Fire
☐ Planned Event	☐ Other

Situation Summary as of Time of Report

Future Outlook/Goals/Needs/Issues

Safety Status / Personnel Casualty Summary

Casualty Type	Since Last Report	Adjustments to Previous Op. Period	Total
Responder Injury			
Responder Death			
Public Missing (Active Search)			
Public Missing (Presumed Lost)			
Public Uninjured			
Public Injured			
Public Death			
Total Public Involved			

Property Damage Summary

Property Type	Est. Damage Amount
Vessel	
Cargo	
Facility	
Other	

ENBRIDGE	Incident Status Summary	ICS 209

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Incident:	Prepared By:	at:
Period:	Version Name:	

Equipment Resources

Type	Notes	Ordered	Available / Staged	Assigned	Out-of-Service
Aircraft – Fixed-Wing					
Aircraft – Helo					
Pollution Equip – Boom					
Pollution Equip – OSRV					
Pollution Equip – Portable Storage					
Pollution Equip – Skimmers					
Pollution Equip – Tank Vsl/Barge					
Pollution Equip – VOSS/SORS					
Vehicles – Ambulance					
Vehicles – Car					
Vehicles - Fire/Rescue/HAZMAT					
Vehicles – Truck					
Vehicles – Vac/Tank Truck					
Vessels – Boat					
Vessels – Deck Barge					
Vessels – Pilot Boat					
Vessels – SAR/LE Boat					
Vessels – Tug/Tow Boat					
Vessels – USCG Cutter					
Vessels – Work/Crew Boat					

Personnel Resources On Site

Company, Contractor, Federal, Provincial/State, Local and Territorial Agencies	Total # of People
Enbridge	
Total:	

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Incident:	**Prepared By:** **at:**
Period:	**Version Name:**

HAZMAT/Oil Spill Status (Estimated)

Common Name(s):

UN Number:	**Source Status:** ☐ **Secured** ☐ **Unsecured**
CAS Number:	**Remaining Potential:**
	Rate of Spillage:

All estimates are in:

	Adjustments to Previous Operational Period	**Since Last Report**	**Total**
Volume Spilled/Released			

Mass Balance – HAZMAT/Oil Budget

Recovered HAZMAT/Oil			
Evaporation/Airborne			
Natural Dispersion			
Chemical Dispersion			
Burned			
Floating, Contained			
Floating, Uncontained			
Onshore			
		Total HAZMAT/Oil Accounted for:	

Comments:

HAZMAT/Oil Waste Management (est., since last report)

Waste Type	**Recovered**	**Disposed**	**Stored**
Oil			
Oily Liquid			
Liquid			
Oily Solid			
Solid			

Comments:

HAZMAT/Oil Shoreline Impacts (Estimated)

Degree of Impact	**Affected**	**Cleaned**	**To be Cleaned**
Very Light			
Light			
Medium			
Heavy			
Total:			

Comments:

HAZMAT/Oil Wildlife Impacts (Since last report)

Wildlife Type	**Captured**	**Cleaned**	**Released**	**DOA**	**Died in Facility**	
					Euthanized	**Other**
Bird						
Mammal						
Reptile						
Fish						
Total:						

Comments:

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ENBRIDGE	Change Status	ICS 210

Incident:	Prepared By: at:
Period:	Version Name:

Incident Resources to Change

ID	Supplier	Resource Type	Description	Quantity	Size	Current Location	Current Status

New Status and/or Location

New Status:

New Location:

Date/Time of Change:

Notes (Special Instructions, Safety Notes, Hazards, Priorities)

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ENBRIDGE

Check-In List (Personnel)

ICS 211p

Incident:	**Prepared By:** **at:**
Period: **to**	**Version Name:**
Check-In Location ☐ **Command Post** ☐ **Staging Area** ☐ **Other**	**Location Name:**

Personnel Check-In Information

Name (Last, First) & Contact Information	Classification & Company/Agency	Assigned Section & Position	Quantity & UOM	Check-In Date/Time	Check-Out Date / Time Destination

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ENBRIDGE

Check-In List (Equipment)

ICS 211e

Incident:	**Prepared By:**	**at:**
Period:	**Version Name:**	
Check-In Location: ☐ Command Post ☐ Staging Area ☐ Other	**Location Name:**	

Equipment Check-In Information

Equipment Description & Identifier	Supplier & Contact Information	Quantity & UOM	Size & UOM	Check-In Date/Time & Assignment	Check-Out Date / Time & Destination

ENBRIDGE	Unit Log	ICS 214

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Incident:	Prepared By:	at:
Period: to	Version Name:	

Personnel Roster Assigned

Name	ICS Position	Home Base

Activity Log

Date/Time	Events/Notes

ENBRIDGE	Individual Logs	ICS 214a

REDACTED COPY

Incident:	Prepared By:	at:
Period:	Version Name:	

Activity Log	
Date/Time	Events/Notes

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ENBRIDGE

Operational Planning Worksheet | **ICS 215**

Incident:	**Prepared By:** at:
Period:	**Version Name:**

Branch/Division/ Area of Operation	Work Assignments	Resource							Reporting Location	Requested Arrival Date/Time
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								
		Required								
		Have								
		Need								

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Support Vehicle Inventory

ICS 218

Incident:	**Prepared By:** **at:**
Period:	**Version Name:**
Vehicle Category: ☐ Buses ☐ Dozers ☐ Engines ☐ Lowboys ☐ Pickups/Sedans ☐ Tenders ☐ Other	

Vehicle Equipment Information

Resource Order # / *E* Number	Incident ID #	Vehicle Type	Vehicle Make	Capacity/Size	Agency/Owner	Vehicle License / Rig Number	Location	Release Time

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Incident:	Prepared By: at:
Period:	Version Name:

Personnel and Communications

Title/Position	Name	Air/Air Frequency	Air/Ground Frequency	Phone

Planned Flight Information

Type Of Aircraft	Operating Base	Aircraft Company	Passenger Capacity	Purpose	Scheduled Flights

Notes (Special Instructions, Safety Notes, Hazards, Priorities)

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ENBRIDGE	Demobilization Check Out	ICS 221

Incident:	Prepared by:
Period: to	Version Name:

Incident Resources to Change

ID	Supplier	Resource Kind	Description	Quantity	Equip ID/Tag#	Size	Original Location

New Status and/or Location

New Status:

New Location:

Release Date/Time:

Changes Processed On: **By:**

Comments

Approved By

You and your resources have been released, subject to signoff from the following:

Position	Printed Name	Signature	Date

	Prepared By:	at / / :
	Page of	

ENBRIDGE	Health and Safety Message	ICS 223

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Incident:	Prepared By:	at:
Period:	Version Name:	

Major Hazards and Risks

Narrative

Signature:

ENBRIDGE	Long Term Planning Worksheet	ICS 226

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Incident:	Prepared By:	at:
Period:	Version Name:	

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Daily Meeting Schedule

ICS 230

Incident:		Prepared By:	at:
Period:		Version Name:	
Meeting Name & Date/Time	**Purpose**	**Attendees**	**Location**

ENBRIDGE	Meeting Description Summary	ICS 231

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Incident:		**Prepared By:**	**at:**
Period:		**Version Name:**	

Meeting Information	
Meeting Name:	
Meeting Date/Time:	
Meeting Location:	
Meeting Facilitator:	

Purpose and Attendees	
Purpose:	
Attendees:	

Agenda Outline

Meeting Minutes

ICS 232 – Resources at Risk	Version Name:
Incident Name:	Period: / / : to / / :

Environmentally Sensitive Areas and Wildlife Issues

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Site #	*Priority*	*Site Name and/or Physical Location*	*Status*	*Date Completed*
Site Issues				
Notes				
Site Issues				
Notes				
Site Issues				
Notes				
Site Issues				
Notes				
Site Issues				
Notes				

ICS 232 – Resources at Risk	Version Name:
Incident Name:	Period: / / : to / / :

Archaeo-cultural and Socio-economic Issues

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Site #	*Priority*	*Site Name and/or Physical Location*	*Status*	*Date Completed*
Site Issues				
Notes				
Site Issues				
Notes				
Site Issues				
Notes				
Site Issues				
Notes				
Site Issues				
Notes				

ENBRIDGE	ACP Site Index	ICS 232a

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Incident:	Prepared By:	at:
Period:	Version Name:	

Index to ACP/GRP sites shown on Situation Map

Site #	Priority	Site Name and/or Physical Location	Action	Status
Notes:				
Notes:				
Notes:				
Notes:				
Notes:				
Notes:				
Notes:				
Notes:				
Notes:				

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ENBRIDGE

Action Tracker Report

ICS 233

Incident:			Prepared By:		at:	
Period:			Version Name:			
Item Number	Description	Responsible Section/Person	Status	Start Date	Briefed	Target Date

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ENBRIDGE

Work Analysis Matrix

ICS 234

Period:	Version Name:

Objectives		
Operations Objectives	**Optional Strategies**	**Tactics/Work Assignments**

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Annex 1 – Table of Contents

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1.0 Owner & Operator

The Owner and Operator of this pipeline system is:

OWNER/OPERATOR ADDRESS	Enbridge Pipelines (NW) Inc. Enbridge Center Suite 330, 10180 101 Street Edmonton, Alberta T5J 3S4 1-780-420-5210

24-Hour Contact: **877-420-8800** or **Line 21 CCO 780-420-8881** via Edmonton Control Center

This pipeline system is comprised of the following legal entity:

- Enbridge Pipelines (NW) Inc.

1.1 Purpose

This Annex is designed to provide field personnel with the information necessary to respond to incidents in a safe and efficient manner in the Northern Region Response Zone System, hereafter referred to as the Northern Region.

1.2 Interface with Contingency and Company Plans

This Plan has been prepared in accordance with external Contingency Plans. These plans are used to provide a framework for liaison and assistance during an emergency response. The scale of coordination between external agencies and use of contingency plans will vary depending on the necessity of Unified Command outlining areas of concern, such as:

- Identification of environmentally, culturally, and economically sensitive areas potentially impacted by a spill.
- Descriptions of Company's response strategies and responsibilities in accordance with Enbridge Tactical Response Plans and Control Point Maps.
- Integration of Company's response efforts with those of the Federal, Territorial, Provincial, and local agencies.

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1.2.1 Contingency Plans

- Enbridge Community Air Monitoring and Sampling Plan
- Enbridge Shoreline Oiling Assessment Survey Manual
- Enbridge Wildlife Response Plan
- Enbridge Waste Management Plan
- Enbridge Submerged Oil Recovery Plan
- Enbridge Environmental Sensitivity Mapping and QA/QC Protocol Standard
- Enbridge Contaminated Site Assessment and Remediation Program Standard
- Enbridge Contaminated Site Management Program Standard
- Enbridge Incident Management Handbook
- Enbridge Inland Spill Response Tactics Guide
- Enbridge LP/MP Safety Manual

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1.3 Management Certification

Management Certification
This Plan is approved for implementation as herein described. Manpower, equipment and materials will be provided as required in accordance with this Plan. The Company is dedicated to the protection of the environment and commits to implement the necessary measures, as specified in the Plan, as necessary in a spill response emergency. In addition to any non-Company resources including Mutual Aid arrangements identified in this Plan, the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times. The Senior Manager has been identified and assumes the role of the Incident Commander. I, the undersigned, attest to the fact that the information contained within this Integrated Contingency Plan is accurate and factual to the best of my knowledge. The listed individuals in this letter are considered, in priority of succession, as Qualified Individuals and have full authority to make all necessary decisions in an emergency situation. Such decisions include, but are not limited to, the following: • Activate internal alarms and hazard communications systems; • Activate personnel, equipment, and response organizations' Mutual Aid as needed; • Identify character, source, amount, and extent of release; • Notify and provide information to appropriate Federal, Provincial, Territorial, and local authorities; • Assess interaction of spilled substance with water and/or other substances stored at facility and notify on-scene response personnel; • Assess possible hazards to human health and the environment including both the direct and indirect effects of the release (e.g., the effects of any hazardous surface waters runoffs from water or chemical agents used to control fire and heat-induced explosion); • Assess and implement prompt removal and containment actions; • Coordinate rescue and response actions with response personnel; • Activate and direct cleanup activities with emergency response contractors; • Act as a liaison with the regulatory authorities; and • Designate any funds required to carry out all required and directed oil spill response, mitigation and clean-up activities. This Plan has been prepared in accordance with and is consistent with applicable contingency plans for the facilities covered by this Plan.
[redacted] CERTIFICATION SIGNATURE: [redacted] Director, Athabasca and Northern Region Ops NA December 11, 2017 DATE

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1.4 Incident Commanders (Qualified Individuals)

The Senior Manager has been identified as the Incident Commander and assumes the role of the Qualified Individual.

	The Minimum Duties Required Of The QI /IC or designee Include:
✓	Activate response personnel and response organizations' Mutual Aid as needed.
✓	Notify and provide necessary information to appropriate Federal, Provincial, Territorial, and local authorities with designated response roles. See *Annex 2 – Notification Procedures*.
✓	Assess the possible hazards to human health and the environment as a result of the release. This assessment must consider both the direct and indirect effects of the release (e.g., the effects of any hazardous surface waters runoffs from water or chemical agents used to control fire and heat-induced explosion).
✓	Assess and implement prompt removal actions to contain and then remove the substance released.
✓	Coordinate rescue and response action as previously arranged with all response personnel.
✓	Use authority to immediately access Company funding to initiate response, mitigation and clean-up activities.

Northern Region- Incident Commander/Qualified Individual:

	Business Office	Cellular	E-Mail
[redacted] Director, Athabasca and Northern Region	[redacted]	[redacted]	[redacted]@enbridge,com

Alternate Incident Commander/Qualified Individual:

[redacted] Supervisor, Ops	[redacted]	[redacted]	[redacted]@enbridge.com

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1.5 Response Zone Description (Information Summary)

1.5.1 Northern Region

Northern Region is under Enbridge Pipelines (NW) Inc. entity ownership. The Norman Wells Pipeline is located between Norman Wells, NT and Zama, AB and is approximately 869 km long. The pipeline originates adjacent to Imperial Oil's Central Processing Facility at Norman Wells and proceeds in a southerly direction on the east side of the Mackenzie River to a point south of Fort Simpson, where it crosses the Mackenzie River. From there, the pipeline continues in a southeasterly direction across the Northwest Territories/Alberta border to the Zama Terminal.

Headquarters for the pipeline are located at Norman Wells. Facilities include corporate offices, pump buildings, pigging locations, a shop, and warehouse storage. District offices at Norman Wells and Fort Simpson contain all of the equipment necessary for maintaining that portion of the pipeline. Specialized spill containment and clean-up equipment is located at these sites. The two pump stations within the region, Wrigley station (Kp. # 336) and Mackenzie station (Kp. # 585) also have specialized spill containment and clean-up equipment on location. These two locations also have maintenance shops, cold storage buildings, and fuel storage tanks. Wrigley station has camp facilities for four to five staff members In addition, ancillary facilities also include three remote maintenance depots at KP160, KP447 and KP731. These sites include maintenance facilities and emergency response equipment necessary for routine preventative maintenance of the pipeline system. The injection site (IJ KP. # 840) also stores ER equipment.

Tables below list the assets within this region by pipeline, station and tank terminal. Further Regional descriptions follow.

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1.5.2 Pipeline Information

The Northern Region includes one pipeline approximately 869 kilometers in length, with a pipe diameter of 12 inches:

Line Diameter	Pipeline Section	Begin LAT	Begin LONG	Begin KP	End LAT	End LONG	End KP
[redacted]							

1.5.3 Terminal Station Information

The Northern Region has six facilities and three remote maintenance bases located along its pipeline system as listed below:

Facilities	Lines Serviced	Site Number	Call Sign	KP	Coordinates
[redacted]					

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1.5.4 Regional Tank Table

Tank No.	Location	Date Strapped	Total Volume (BBL)	Total Barrel Capacity at Facility (BBL)
TK-A	Wrigley (WG)	1983	750	3,750
TK-B		1983	750	
TK-C		1983	750	
TK-D		1983	750	
TK-E		1983	750	
TK-A	Mackenzie (MC)	1983	750	2,250
TK-B		1983	750	
TK-C		1983	750	
Total Capacity:				6,000

1.5.5 Territorial and County Boundaries

The table below lists the territorial, provincial, regional, and municipal boundaries and kilometer posts by line in which the Northern Region pipeline traverses.

Northern Region			
Territories/Municipalities	Line	KP Beginning	KP Ending
Sahtu Region	21	0	228
Deh Cho	21	228	751
Alberta	21	751	869

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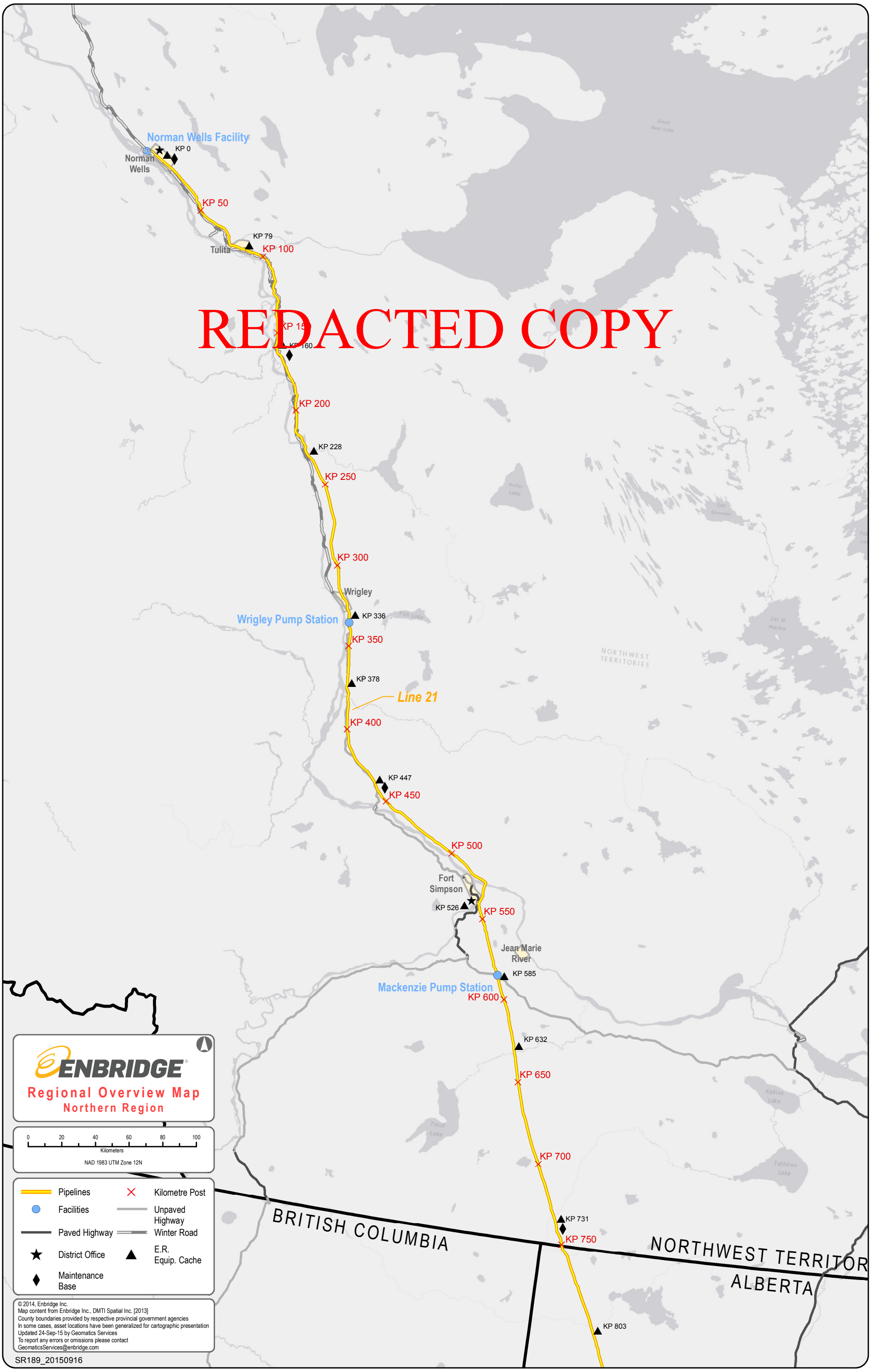

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1.6 Local Spill Response Equipment

It is the responsibility of each Area Manager/Supervisor to ensure that the spill response equipment is inventoried annually and restocked as resources are expended.

The following pages list the Enbridge-owned primary spill recovery equipment and its capabilities. Emergency response containers (C-Cans) contain hard boom, sorbent boom, skimmers, and porta-tanks as well as various tools for initial emergency response to both land and water releases. Remote equipment caches are also located within the region.

The equipment locations are noted on emergency response maps within this Annex under *Section 1.8*.

Northern Region emergency response personnel also have access to Imperial Oil emergency response equipment based in Norman Wells for response to emergencies on the Mackenzie River, and may be used to supplement Northern Region response equipment in the event of a major emergency involving the Norman Wells Pipeline system. Refer to *Section 1.6.3* for equipment location and overview of equipment and the response time maps under *Section 1.8.*

Northern Region also has access to Mackenzie Delta Spill Response Cooperation's (MDSRC) emergency response equipment.

The Western Canadian Spill Services LTD ("WCSS")- Zama-Virgo Oil Spill Cooperative (Area A) in Alberta maintains a cache of oil spill response equipment which may also be used to supplement the Northern Region equipment in the event of an emergency situation. Refer to Section 2:3.3 – Oil Spill Contingency Manual "Area A" issued by Western Canadian Spill Services Ltd. for the location and contents of the OSCAR units/equipment. http://www.wcss.ab.ca/TP_Section2.3_Rev98_2015_Feb_09.pdf

In the event of an incident, the Control Center would contact the Regional-On-Call Manager, who has the ability to mobilize personnel and equipment on a 24-hour basis.

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1.6.1 Enbridge Equipment

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Northern Region		
Fort Simpson		
FP-845-CCN-1210 - Fort Simpson ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		58 Each
BOOM, RIVER, 10 FT SECTIONS/40020848		6 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		4 Each
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		40 Each
Boom,Inflatable, RIVER, AIRMAX, 8IN X 8IN X 50FT, P/N 01208080050ENB ELASTEC/AMERICAN MARINE,/40013601		2 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, TRASH, 2IN/40013876		5 Each
PUMP, ELASTEC, PORTABLE/40020849		1 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER SA2-A, 2IN, LUNG/40020851		2 Each
PACK, PUMP, 2IN, HYDRAULIC/40020853		2 Each
PUMP, TRASH, 3IN/40020394		3 Each
Resource Name	SKIMMER	Total
SKIMMER, MECHANICAL, DRUM, 4FT, UNO 481, ELASTEC/AMERICAN MARINE/40020830		1 Each
SKIMMER, MECHANICAL, DRUM, GROOVED , OSYSTSK340, 70 G.P.M., TDS118G, ELASTEC/AMERICAN MARINE, HYDRAULIC Drive, SHALLOW WATER/40013608		1 Each
SKIMMER, VACUUM, Shovel Head, Vacuum system w/Hydraulic Motor, ELASTEC/AMERICAN MARINE,/40013600		1 Each
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each
SKIMMER, WEIR, PEDCO , 4FT WIDE/40009884		2 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		36 Each
ABSORBENT, SMART CRUMB, ESS11/40020863		5 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
GENERATOR, HONDA, 5000 WATT/40020860		4 Each
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		8 Each
Vehicle,Off Highway Vehicles, Gasoline, QUAD, PERSONNEL, ALLWHL DRIVE/40020805		2 Each

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Norman Wells

NS-845-WHSE-1200 - Norman Wells ER Equipment Storage

Resource Name	BOOM	Total
BOOM, ABSORBENT, CHEMTEC P/N SB5, 5IN X 10FT, 4 PER BAG/40015608		14 Each
Boom,Inflatable, RIVER, AIRMAX, 8IN X 8IN X 50FT, P/N 01208080050ENB ELASTEC/AMERICAN MARINE,/40013601		2 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		26 Each
BOOM, RIVER, 10 FT SECTIONS/40020848		3 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		4 Each
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		14 Each

Resource Name	SHALLOW WATER EQUIPMENT	Total
DAM,PORTABLE, AQUA, WATER FILLED, 50FT, LAYFIELD ENVIRONMENTAL SYSTEMS, MODEL AD FLOOD CONTROL 50/40013595		2 Each
PACK, PUMP, 2IN, HYDRAULIC/40020853		2 Each
PUMP, WATER, MONARCH, 6IN/40020854		1 Each
PUMP, TRASH, 3IN/40020394		4 Each
PUMP, TRASH, 2IN/40013876		1 Each
PUMP, INJECTION, GASO TRIPLEX 3200/40002300		1 Each
PUMP, ELASTEC, PORTABLE/40020849		1 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER SA2-A, 2IN, LUNG/40020851		1 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER, SA3-A, 3IN, LUNG/40020852		1 Each

Resource Name	SKIMMER	Total
SKIMMER, WEIR, ES400 helical screw pump, OSYSTSK440S, 520.0 GPM, Sea Skater Weir, ELASTEC/AMERICAN MARINE, Self Adjusting/40013609		1 Each
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each
SKIMMER, WEIR, PEDCO , 4FT WIDE/40009884		1 Each
SKIMMER, MECHANICAL, DRUM, 4FT, UNO 481, ELASTEC/AMERICAN MARINE/40020830		1 Each
SKIMMER, VACUUM, Shovel Head, Vacuum system w/Hydraulic Motor, ELASTEC/AMERICAN MARINE,/40013600		1 Each

Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		12 Each

Resource Name	SPECIALIZED EQUIPMENT	Total
GENERATOR, HONDA, EU6500/40020857		1 Each

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Norman Wells		
IJ-845-CCN-1221 - Zama Injection Point ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		12 Each
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		47 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, TRASH, 2IN/40013876		1 Each
PACK, PUMP, 2IN, HYDRAULIC/40020853		1 Each
PUMP, TRASH, 3IN/40020394		1 Each
Resource Name	SKIMMER	Total
SKIMMER, MECHANICAL, DRUM, 4FT, UNO 481, ELASTEC/AMERICAN MARINE/40020830		1 Each
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		14 Each
PAD, ABSORBENT, OIL ONLY, 100PADS/BAG/40013873		13 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		2 Each
KP160-845-CCN-1204 - Kilometer Post 160 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		8 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		6 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		6 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PACK, PUMP, 2IN, HYDRAULIC/40020853		1 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER, SA3-A, 3IN, LUNG/40020852		1 Each
PUMP, TRASH, 3IN/40020394		2 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER SA2-A, 2IN, LUNG/40020851		1 Each
PUMP, TRASH, 2IN/40013876		2 Each
Resource Name	SKIMMER	Total
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each

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Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		12 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
GENERATOR, HONDA, 5000 WATT/40020860		1 Each
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		2 Each
GENERATOR, HONDA, EM6500SX/40020367		1 Each
Norman Wells		
KP228-845-CCN-1205 - Kilometer Post 228 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		10 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		4 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		6 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, TRASH, 2IN/40013876		1 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		12 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
GENERATOR, HONDA, EG 1400-X/40020861		1 Each
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		2 Each
KP378-845-CCN-1208 - Kilometer Post 378 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		4 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		1 Each
KP447-845-CCN-1209 - Kilometer Post 447 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		11 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		5 Each

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Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, TRASH, 3IN/40020394		1 Each
Resource Name	SKIMMER	Total
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		4 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		2 Each
Norman Wells		
KP632-845-CCN-1217 - Kilometer Post 632 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		11 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		3 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		4 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		12 Each
KP731-845-CCN-1218 - Kilometer Post 731 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		33 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		10 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER SA2-A, 2IN, LUNG/40020851		1 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER, SA1-A, 1IN, LUNG/40020865		1 Each
PUMP, TRASH, 2IN/40013876		1 Each
PUMP, TRASH, 3IN/40020394		1 Each
Resource Name	SKIMMER	Total
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each

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Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		12 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		2 Each
Norman Wells		
KP79-845-CCN-1201 - Kilometer Post 79 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		12 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		2 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		30 Each
BOOM, RIVER, 10 FT SECTIONS/40020848		1 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, TRASH, 2IN/40013876		1 Each
PUMP, TRASH, 3IN/40020394		1 Each
Resource Name	SKIMMER	Total
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each
SKIMMER, WEIR, PEDCO , 4FT WIDE/40009884		1 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		10 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
GENERATOR, HONDA, EM6500SX/40020367		1 Each
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		4 Each
KP801-845-CCN-1220 - Kilometer Post 801 ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		10 Each
Bridle, Tow, W/Bullet Float, P/N 0540420F Elastec, For Airmax River Boom/40013602		4 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		6 Each
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		4 Each

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Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		10 Each
Norman Wells		
MC-845-CCN-1216 - MacKenzie Station ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		5 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		3 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PUMP, INJECTION, GASO TRIPLEX 3200/40002300		1 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		4 Each
WG-845-CCN-1206 - Wrigley Station ER Equipment CCAN		
Resource Name	BOOM	Total
BOOM, GLOBE, DESMI-AFTI, 50 FT SECTIONS/40020847		6 Each
BOOM, ABSORBENT, SPILFYTER M-54S, 5IN X 10FT, OIL ONLY, 4 PER BAG/40013874		36 Each
BOOM, RIVER, VERSATECH, 50FT SECTIONS/40020846		37 Each
Resource Name	SHALLOW WATER EQUIPMENT	Total
PACK, PUMP, 2IN, HYDRAULIC/40020853		2 Each
PUMP, DIAPHRAGM, WARREN RUPP SANDPIPER, SA3-A, 3IN, LUNG/40020852		1 Each
PUMP, TRASH, 2IN/40013876		1 Each
PUMP, TRASH, 3IN/40020394		3 Each
Resource Name	SKIMMER	Total
SKIMMER, WEIR, PEDCO , 4FT WIDE/40009884		1 Each
SKIMMER, WEIR, PEDCO , 2FT WIDE/40020397		1 Each
Resource Name	SORBENTS	Total
ABSORBENT, ROLL, 3FT x 150FT, BLANKETS/40020850		6 Each
Resource Name	SPECIALIZED EQUIPMENT	Total
TANK, PORT-A-TANK, C/W BLADDERS, 1500 GAL/40020355		2 Each

1.6.2 Enbridge Equipment Locations

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Equipment Locations	KP	Emergency Phone Number	Address	Coordinates
North				

1.6.3 Imperial Oil Norman Wells Emergency Response Equipment

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Imperial Oil Norman Wellls Central Processing Facility
Equipment Location
[redacted]
Equipment Summary
• Work boats • Crew boat • Tug /barge capable of transporting fully loaded semi-truck/trailers

1.6.4 Western Canadian Spill Services LTD Equipment

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Area A
COOP Custodian
[redacted]
Equipment Location
[redacted]
Equipment Summary
• 20' Sea-can (haul with winch tractor/trailer) • Drum Skimmer (c/w power pack)
COOP Custodian
[redacted]
Equipment Location
[redacted]
Equipment Summary
Skid Units (2) (Bed truck)
Directions
[redacted]

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Area C

Regional Custodian

[redacted]

Equipment Location

[redacted]

Equipment Summary

- OSCAR Trailer (Tractor truck)
- Barge (1 ton with 2 5/16" ball hitch and electric brakes)
- 40' Boom Cache Sea-can (haul with winch tractor/trailer)
- 16' Wildlife Trailer
- 1 Workboat (1/2 ton with 2" ball hitch)
- Drum Skimmer c/w powerpak

COOP Custodian

[redacted]

Equipment Location

[redacted]

Equipment Summary

- Skid Unit (Bed truck or Oilfield float trailer)
- Work Boats (2) 1/2 ton w/ 2" ball hitch

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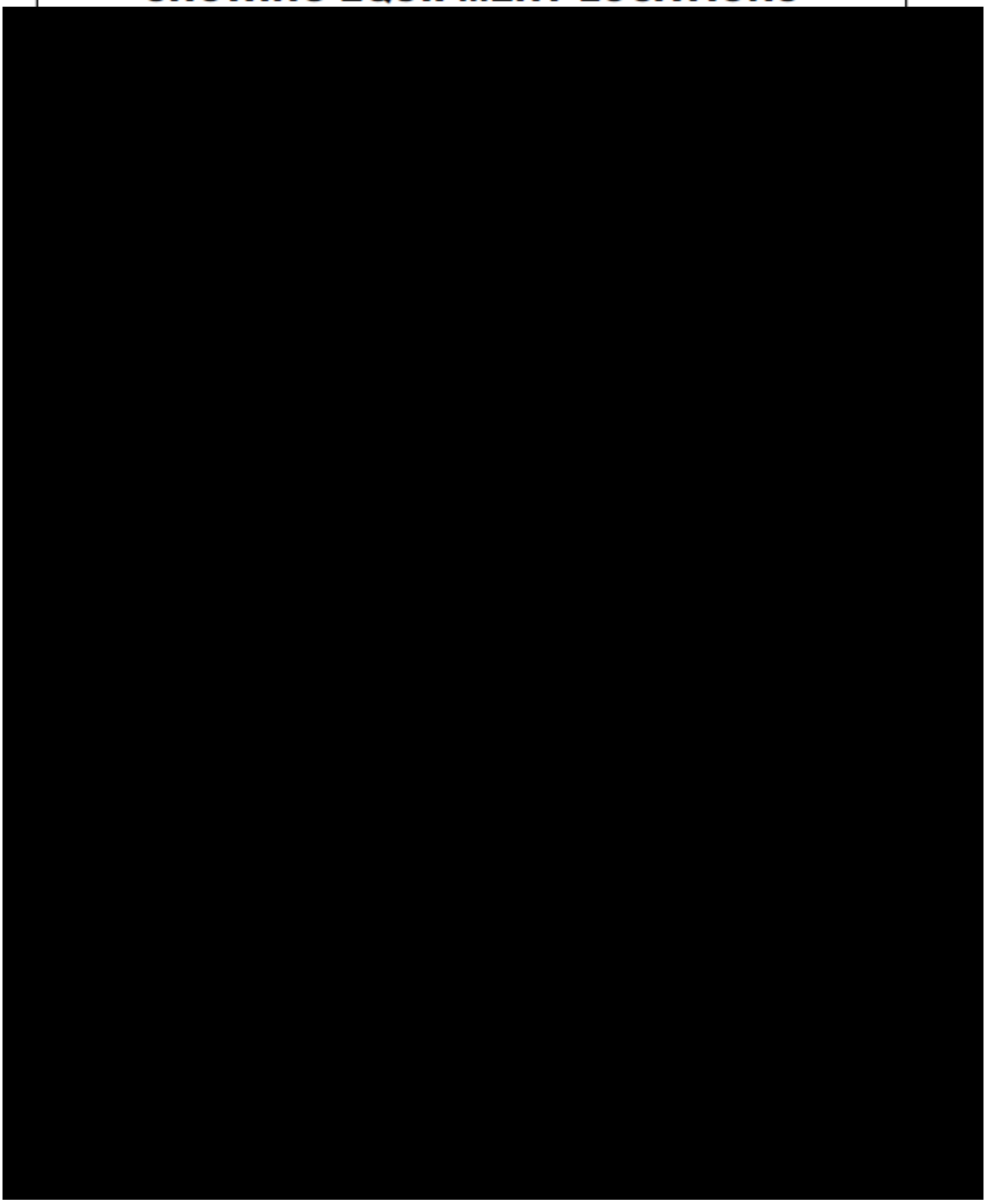
WCSS OIL SPILL
COOPERATIVE BOUNDARIES 2017
SHOWING EQUIPMENT LOCATIONS



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1.7 Evacuation

It is important to remember that evacuations beyond Company property will have to be initiated and coordinated with local emergency response/management organizations which have the legislative authority to order the movement of persons. Provincial, Territorial, Indigenous and local authorities have primary responsibility and authority for evacuation planning and for the transportation, sheltering, public safety, and security of persons and non-Federal property within their respective jurisdictions. The unique challenges that might confront Provincial, Territorial, Indigenous and local governments during a mass evacuation could require them to request additional assistance, of either a logistical or operational nature, from within their province, from other provinces pursuant to mutual aid and assistance compacts, or from the Federal government.

If the public is at risk, Regional Management will contact the Land Services Department for a list of landowners in the emergency planning zone to initiate notifications.

Company Responsibilities:

- The Company should ensure that local emergency response/management organizations are provided with a clear recommendation to evacuate the public should the Company become aware of an immediate threat to life or safety that may not be under action by first responders.

- The Company will serve only in an advisory capacity during an evacuation order and may assist with the logistics of an evacuation.

- The Company must provide as much product information as possible to any emergency management organization coordinating an evacuation. The latest version of the Emergency Response Guidebook ("ERG") should be consulted in order to determine safe evacuation distances. See *Core II- Section 2.3.2 Isolation Distance.*

1.7.1 Emergency Helicopter Evacuation

In the event of an injury or illness in the Northern Region, request for MEDEVAC services will follow the listed procedures below:

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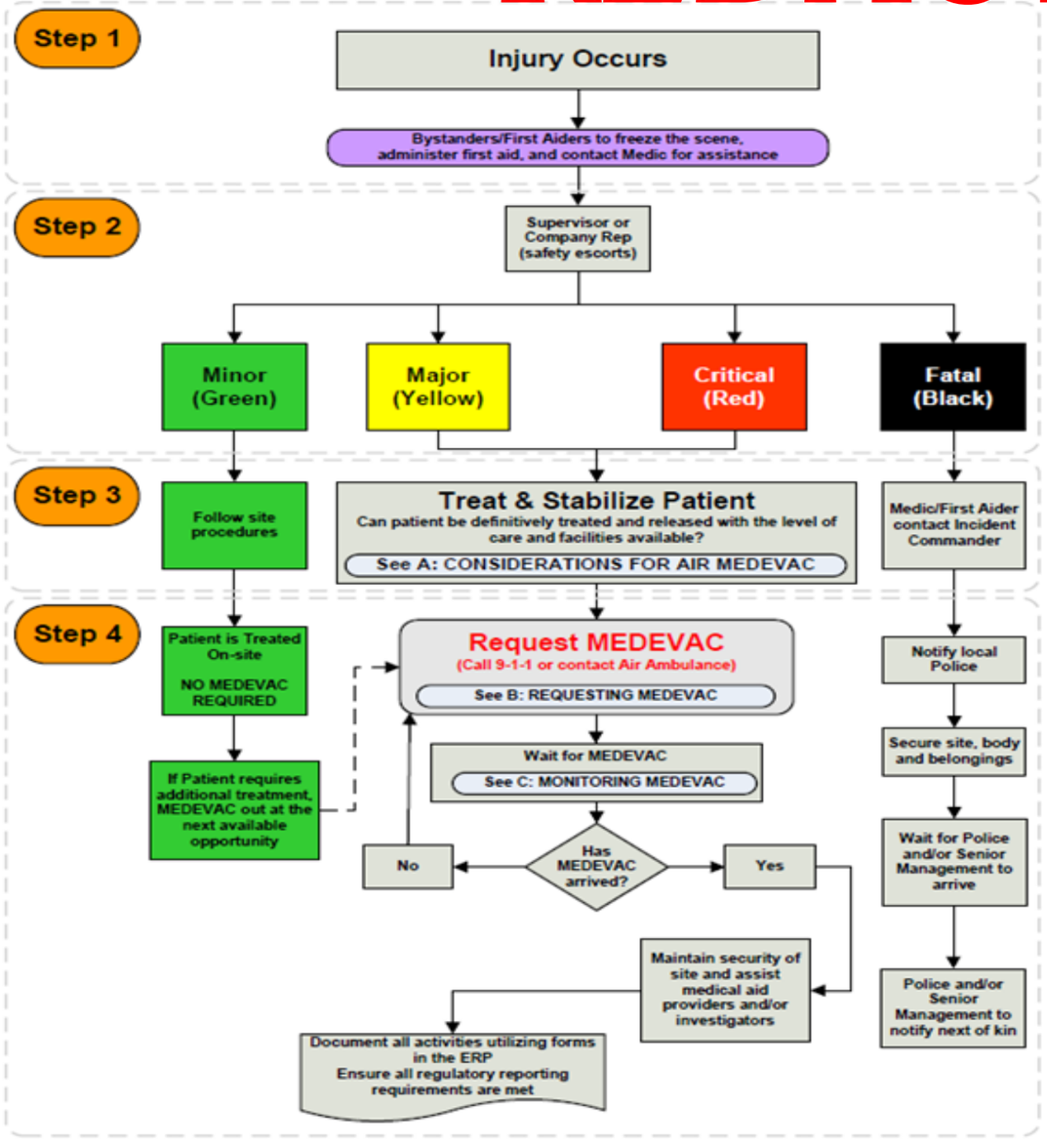
Emergency Helicopter Evacuation (1.7.1)



IN THE EVENT OF ANY INJURY OR ILLNESS THE FOLLOWING STEPS SHALL BE FOLLOWED:

1) SURVEY THE SCENE AND ASK YOURSELF THE FOLLOWING QUESTIONS:
   - Is it safe for me to help?
   - What happened?
   - How many people are injured?
2) CALL FOR HELP:
   1) Activate Emergency Responders and/or call 9-1-1
   2) Identify your location
   3) Follow the direction of the Medic and administer First Aid if required and you are trained to do so
   4) Review Step 1

PATIENT PRIORITY COLOUR CODE

The practice of colour coding patients is a useful tool to prioritize patients into categories depending on their medical condition. This colour code system allows ease of communicating the condition of the patient to those involved in the care and transportation of the patient.

Green – Patients with minor injuries or illnesses who are usually walking.

For example:
- Minor burns
- Sprains and strains
- Colds and flu symptoms

Yellow – Patients with major injuries or illnesses that should be treated as soon as possible.

For example:
- Open fractures
- Large lacerations

Red – Patients with critical, life threatening injuries or illnesses that require treatment as soon as possible.

For example:
- Airway problems
- Severe hemorrhage
- Severe burns
- Failing vital signs

Black – Death is obvious. NOTE: resuscitation / treatment must continue until directed otherwise by a qualified medical provider. Await Police.

A: CONSIDERATIONS FOR AIR MEDEVAC

Consider air transport when:
- Patient requires critical care life support during transport that is not available locally.
- Patient's condition requires that time spent in transport be as short as possible.
- Potential delays associated with ground transport (road obstacles or conditions, traffic, distance) are likely to worsen the patient's condition.
- Patient is located in an area inaccessible to regular ground transport.
- The use of medical transportation resources would leave the local area or worksite without adequate medical coverage.

B: REQUESTING MEDEVAC

When requesting MEDEVAC, be prepared to supply the following information:
- Location of patient pickup (facility, airport, road intersection, GPS)?
- Who will be meeting MEDEVAC crew (radio callsign / frequency, cell number)?
- Will the patient meet the MEDEVAC crew at the pickup location or will the MEDEVAC crew need to be transported to the patient?
- Any special equipment required (ventilator, bariatric transport equipment, etc.)?
- Will any additional personnel be necessary (physician, nurse)?
- Is there an intended destination (major hospital, community)?
- Has any consultation with medical providers at the intended destination been done?

Do not delay launch / dispatch of MEDEVAC, provide the following information once available:
- Mechanism of injury (and time of injury if known)
- Injury or illness sustained
- Symptoms and vital signs
- Treatment given

C: MONITORING MEDEVAC

When requesting MEDEVAC, ensure that you are monitoring the transport and are aware of who to contact for updates and in case changes to plan are required.

WHEN IS MEDEVAC TRANSPORT SCHEDULED TO ARRIVE?: _____

WHAT NUMBER SHOULD BE CONTACTED IF SOMETHING IN THE PLAN NEEDS TO BE CHANGED?

_____

IF TRANSPORT DOESN'T ARRIVE, OR IF NO UPDATES ARE HEARD, WHAT TIME WILL WE CONTACT MEDEVAC FOR AN UPDATE?

_____

EMERGENCY MEDEVAC PHONE NUMBERS

PROVINCIAL AIR AMBULANCE:	
Alberta	800-661-3822
Manitoba	800-689-8559
Saskatchewan	888-782-8247
Ontario (ORNGE)	800-387-4675
Quebec Airmedic ambulance	1-877-999-3322
STARS (AB, SK, MB):	
24 Hour Emergency:	888-888-4567

NOTE: When a medical evacuation is complete all personnel must report to the Incident Commander for a debriefing session.

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1.8 Emergency Response Time Maps

1.8.1 Northern Region Response Zone

Regional Emergency Response Time Maps were created utilizing ESRI® (Environmental Systems Research Institute) ArcMap. Times were calculated utilizing actual street speed limits based on a network dataset built from ESRI's StreetMap Premium for ArcGIS, which contains street information from 2016. Optimal driving conditions were used in this response time analysis, actual time is subject to change based on local road, traffic and weather conditions.

These response time maps are considered a conservative time frame for travel to site and do not include additional time for deployment. In the event of an incident, reference to individual maps will be necessary.

Manned facility travel time is calculated every hour up to six hours depicting travel time **only** for personnel and equipment to locations along the pipeline represented by color changes signifying one-two hour time changes. Maps show the locations of facilities, boats and equipment caches.

Western Canadian Spill Services LTD ("WCSS") Trailer location travel times are represented by calculating every hour up to six hours. The color changes represent two-hour travel time changes. Response times may vary with the locations of mutual aid personnel at the time of an event. This is representative of travel time for the trailers **only**.

1.8.2 Company Response Times

Response times may be variable due to remote access, extreme road and weather conditions. The safety of responders is of the utmost importance, good decisions and safe behavior are more important than speed. The response times in the Emergency Response Time Maps are strictly guidelines intended to be used during incident pre-planning to pre-identify and appropriately pre-position the resources (people and equipment) before an incident occurs.

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Emergency Response Maps
Northern Region

1.8.3 Facilities/Locations with Enbridge-owned ER Equipment

	Map
Overview Map	1 of 14
Norman Wells, NT	2 of 14
KP 79	3 of 14
KP 160	4 of 14
KP 228	5 of 14
KP 336, Wrigley Pump Station	6 of 14
KP 378	7 of 14
KP 447	8 of 14
Fort Simpson, N T	9 of 14
KP 585	10 of 14
KP 632	11 of 14
KP 731	12 of 14
KP 801, Petitot River	13 of 14
KP 840	14 of 14

This map will show the travel time required from the manned facility, after notification, to access areas along the pipeline.

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Emergency Response Maps
Northern Region

1.8.4 Cooperatives/Mutual Aid with Enbridge Response Equipment

	Map
Overview Map	1 of 6
Fort Nelson- Clean Harbors	2 of 6
Rainbow Lake	3 of 6
Zama	4 of 6
Mackenzie Delta Spill Response Corporation (MDSRC)	5 of 6
Imperial Oil Norman Wells	6 of 6

These maps will show the travel time **only,** after notification, from the WCSS Trailer locations to areas along the pipeline system.

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Emergency Response Maps
Northern Region

1.8.5 Helibase Support Locations

Overview	Map 1 of 7
Fort St. John, BC	Map 2 of 7
High Level, AB	Map 3 of 7
Fort Nelson, BC	Map 4 of 7
Fort Simpson, NT	Map 5 of 7
Yellowknife, NT	Map 6 of 7
Norman Wells, NT	Map 7 0f 7

Aerial emergency response support is accessible from several helibases throughout the Northwest Territories. These maps represent the time required after a two-hour notification/deployment for support to reach areas along the pipeline system.

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1.9 Forest Fire Procedures

This document outlines company procedures to be followed in the event of a forest fire which occurs near the Norman Wells pipeline, and may affect Enbridge Pipeline (NW) equipment or facilities.

1.9.1 Company Responsibilities

Enbridge (NW)'s responsibility during a forest fire is protection of company facilities and elimination of risks to equipment which may be threatened by the fire. This may be accomplished through actual mitigation efforts undertaken by company personnel, or through coordination with the Government of the Northwest Territories ("GNWT") department of Environment and Natural Resources ("ENR") in the Northwest Territories and/or Alberta Sustainable Resource Development ("SRD") to ensure that protection of company facilities is considered as part of forest fire suppression activities. In addition, Enbridge may assist fire suppression activities by providing use of facilities, company resources and equipment along the pipeline system under the direction of the appropriate authority. Specific company responsibilities include:

- Identification of sensitive areas or facilities which may require protection, in the vicinity of the fire.
- Identification of hazards or problems which may occur as a result of a fire in the designated sensitive areas.
- Identification of appropriate mitigation efforts.
- Implementation of appropriate mitigative measures, with the assistance of the ENR and/or SRD to minimize the effects of the forest fire on company facilities.

1.9.2 Government Responsibilities

The GNWT has responsibility for coordination of forest fire control within the Northwest Territories. SRD has responsibility for coordination of forest fire control within Alberta. Upon report of a forest fire affecting the Norman Wells pipeline, Enbridge (NW) personnel will work closely with the appropriate government agency to ensure that possible effects on pipeline facilities are considered as part of fire suppression efforts. For the duration of the forest fire, Enbridge personnel will coordinate company activities with the appropriate government agency, to ensure that no operational or safety conflicts exist related to government and company activities being undertaken.

1.9.3 Sensitive Areas (Values at Risk)

Enbridge Pipelines (NW) has identified the following types of areas or facilities as being sensitive to a forest fire near the pipeline system, and defined as a "value at risk" by the GNWT:

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HIGH PRIORITY

These areas are designated as high priority because they are critical to the operation of the pipeline system and/or the structural integrity of the line, or have hazards present at the site (fuel, propane storage). The list is presented in descending order of priority:

Pumping Stations

Two pumping stations are located along the Right of Way. These stations contain mechanical and electrical equipment integral to the operation of the pipeline system. Diesel fuel is also stored at these sites.

Remote Valves

These valves are remotely operated by radio control. One or two 6000 litre propane tanks are located at each site to provide power for the operation of these valves.

Insulated Slopes

During construction of the Norman Wells pipeline, ice rich slopes were insulated with a layer of wood chips to reduce thaw depth during the summer and to maintain the engineered integrity of the line. These insulated slopes may be susceptible to fire damage, as the dry wood chips could provide a fuel source to sustain combustion and cause accelerated thawing and possible melting within the slope.

MEDIUM PRIORITY

These areas are designated as medium priority based on their high value (company assets) or due to the storage of flammable materials on-site (i.e. fuel).

Remote Maintenance Bases

Three remote maintenance bases are located near the pipeline system. The bases provide locations to undertake pipeline maintenance activities and general equipment storage. Turbo fuel and/or diesel fuel may also be stored at these sites.

LOW PRIORITY

These items represent high value company assets or areas of risk which are not integral to the operation of the pipeline system. No flammable material storage exists at these sites.

Spill Response Equipment

Spill response depots and caches contain equipment for use in the containment of an oil spill along the pipeline system in the event of a pipeline rupture. Oil spill equipment is stored in containers near Pumping Stations, Remote Maintenance Bases and at four remote locations along the pipeline system route.

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Non-Insulated Slopes

These slopes may be damaged by forest fires, but do not represent a critical value at risk.

Refer to Environmentally Sensitive Area Maps for details of ESAs which could be affected in the event of a forest fire. More detailed information related to each site is contained within this plan:

- Section 1.5.3 Terminals, Pumping Stations, Remote Bases
- Section 1.7- Spill Response Equipment
- Table NRT-1 Remote Valves (Propane Sites)
- Table NRT-2 Check/Manually Operated Valves
- Table NRT-3 Insulated Slopes
- Table NRT-4 Non-Insulated Slopes

If more than one facility or area is threatened by forest fires, sensitive areas should be prioritized, in consultation with the appropriate government agency with a commitment of resources to areas identified as highest priority.

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ENBRIDGE PIPELINES (NW) INC.

Forest Fire Contingency Plan - Sensitive Sites
Norman Wells to Alberta border

Table NRT-2.1 - Remote Valves

Kilometer Post *	Latitude	Longitude	Kilometer Post *	Latitude	Longitude
[redacted]					

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Table NRT-2.2 - Check/Manually Operated Valves

Kilometer Post *	Latitude	Longitude	Kilometer Post *	Latitude	Longitude
[redacted]					

Table NRT-2.6 – Insulated Slopes

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Slope Number/ Name	Location - Start (Kp)	Location - End (Kp)	Starting Point Latitude	Starting Point Longitude	Wood Chip Thickness
[redacted]					

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Slope Number/ Name	Location - Start (Kp)	Location - End (Kp)	Starting Point Latitude	Starting Point Longitude	Wood Chip Thickness
[redacted]					

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Slope Number/ Name	Location - Start (Kp)	Location - End (Kp)	Starting Point Latitude	Starting Point Longitude	Wood Chip Thickness
[redacted]					

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Slope Number/ Name	Location - Start (Kp)	Location - End (Kp)	Starting Point Latitude	Starting Point Longitude	Wood Chip Thickness
[redacted]					

Table NRT-2.7 - Non Insulated Slopes

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Slope Number/ Name	Location - Start (kilometer post)	Location - End (kilometer post)	Starting Point - Latitude	Starting Point - Longitude
[redacted]				

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1.9.4 Fire Protection Measures

Upon identification of an area or Enbridge facility, which may be threatened by a forest fire, Enbridge personnel will not actively participate in fire suppression activities. However, consideration should be given to activities that will protect values at risk and mitigative measures that may be required to protect the area or facility.

FACILITIES

Company emergency preplanning efforts should be undertaken along the Norman Wells pipeline system to enhance protection of facilities from the possible effects from a forest fire. Consideration should be given, where practical, to clearing of heavy vegetation (i.e. trees, large brush), from the immediate vicinity of these facilities (pumping stations, valves, bases). Clearing to a radius of at least 30-40 meters would act as a fire break especially in areas where black spruce is abundant. This firebreak should be maintained as part of annual maintenance activities. During an actual forest fire condition near specific facilities, consideration should also be given to extension of this firebreak, to minimize possible damage to the facility.

Fire suppression or back burning activities may be undertaken with the assistance of GNWT near a facility if a forest fire critically threatens the facility.

INSULATED SLOPES

For forest fires threatening insulated slopes, consideration should be given to spraying the slopes with water to increase the moisture content of the wood chips, if practical to do so. In consultation with GNWT, consideration may also be given, as a last resort, to use of fire retardants or water drops on or near the slope, to limit fire damage to the slope.

1.9.5 Post Fire Inspection and Monitoring

After the fire emergency has been terminated, all facilities and sensitive areas should be inspected to determine if damage has occurred as a result of the forest fire or fire suppression activities. If damage has occurred, appropriate mitigative measures should be implemented, in consultation with personnel from the Enbridge Environment and Engineering departments. Monitoring of site restoration efforts should be undertaken in succeeding years, as part of normal right-of-way reconnaissance and maintenance activities.

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1.10 Safety Data Sheets (SDS)

Table of Contents

- Enbridge Light Crude

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MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: (see Section 16 for Synonyms) **CRUDE OIL, SWEET**
Product Description: Petroleum Crude Oil (<= 0.005% H2S)
MSDS Number: 21341

Intended Use: Feedstock

COMPANY IDENTIFICATION

Supplier: **Imperial Oil - Crude Oil Supply & Marketing**
Products & Chemicals Division
P.O. Box 2480, Station M
Calgary, ALBERTA. T2P 3M9 Canada

24 Hour Environmental / Health Emergency Telephone	1-866-232-9563
Transportation Emergency Phone Number	1-866-232-9563
Supplier General Contact	1-800-567-3776

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*	Acute Toxicity
PETROLEUM CRUDE OIL	8002-05-9	100 %	Dermal Lethality: LD50 > 2.0 g/kg (Rat); Oral Lethality: LD50 > 4.3 g/kg (Rat)

Hazardous Constituent(s) Contained in Complex Substance(s)

Name	CAS#	Concentration*	Acute Toxicity
BENZENE	71-43-2	0.1 - 1%	None
CYCLOHEXANE	110-82-7	1 - 5%	Dermal Lethality: LD50 > 2000 mg/kg (Rabbit); Inhalation Lethality: LC50 > 19.1 mg/l (Rat)
ETHYL BENZENE	100-41-4	0.1 - 1%	Inhalation Lethality: LC50 17.8 mg/l (Rat); Oral Lethality: LD50 3.5 g/kg (Rat)
HYDROGEN SULPHIDE	7783-06-4	0.002 - 0.005%	Inhalation Lethality: LC50 444 ppm (Rat)
n-Hexane	110-54-3	1 - 5%	None
NAPHTHALENE	91-20-3	1 - 5%	Dermal Lethality: LD50 >

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			500 mg/kg (Rat); Inhalation Lethality: LC50 > 0.4 mg/l (Rat); Oral Lethality: LD50 622 mg/kg (Mouse)
POLYNUCLEAR AROMATIC HYDROCARBONS		0.1 - 1%	None
TOLUENE	108-88-3	1 - 5%	None
XYLENES	1330-20-7	1 - 5%	Oral Lethality: LD50 > 5000 mg/kg (Rat)

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 3 HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

PHYSICAL/CHEMICAL EFFECTS

FLAMMABLE. In use, may form flammable/explosive vapour-air mixture. Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Material can accumulate static charges which may cause an ignition.

HEALTH EFFECTS

Irritating to skin. If swallowed, may be aspirated and cause lung damage. Under conditions of poor personal hygiene and prolonged repeated contact, some polycyclic aromatic compounds (PACs) have been suspected as a cause of skin cancer in humans. Hydrogen sulphide, a highly toxic gas, is expected to be present. Signs and symptoms of overexposure to hydrogen sulphide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odour does not provide a reliable indicator of the presence of hazardous levels in the atmosphere. May be irritating to the eyes, nose, throat, and lungs. May cause cancer. Aliphatic hydrocarbon gases may build up in confined spaces and may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in narcosis, unconsciousness, and possibly lead to death. May cause central nervous system depression. High-pressure injection under skin may cause serious damage. Exposure to benzene is associated with cancer (acute myeloid leukaemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders (see Section 11).

NFPA Hazard ID:	Health:	2	Flammability:	3	Reactivity: 0
HMIS Hazard ID:	Health:	2*	Flammability:	3	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4 FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

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SKIN CONTACT

Remove contaminated clothing. Dry wipe exposed skin and cleanse with waterless hand cleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately. This light hydrocarbon material, or a component, may be associated with cardiac sensitisation following very high exposures (well above occupational exposure limits) or with concurrent exposure to high stress levels or heart-stimulating substances like epinephrine. Administration of such substances should be avoided.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight streams of water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop a leak. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Highly flammable. Vapour is flammable and heavier than air. Vapour may travel across the ground and reach remote ignition sources, causing a flashback fire danger. Exposure to fire can generate toxic fumes. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Hydrogen sulphide, Smoke, Fume, Sulphur oxides, Incomplete combustion products, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: -20°C (-4°F) - 35°C (95°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D
Autoignition Temperature: N/D

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SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: half-face or full-face respirator with filter(s) for organic vapor and, when applicable, H2S, or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Chemical goggles are recommended if splashes or contact with eyes is possible. Work gloves that are resistant to aromatic hydrocarbons are recommended. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Note: gloves made of PVA are not water-resistant, and are not suitable for emergency use. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic and, if necessary, heat resistant and thermal insulated material is recommended.

SPILL MANAGEMENT

Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapour, but may not prevent ignition in enclosed spaces.

Water Spill: Stop leak if you can do so without risk. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. If permitted by regulatory authorities, the use of suitable dispersants should be considered where permitted in local oil spill contingency plans.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Use booms as a barrier to protect shorelines. Use containment booms when the ambient temperature is below the flash point of the material. Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

H2S is present. Avoid all personal contact. Crude oils can contain trace levels of natural impurities including

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heavy metals, such as mercury, nickel or lead, as well as naturally occurring radioactive material. As the impurity content may concentrate during refining/processing, process operations, including equipment, materials and products should be evaluated to identify and manage any potential risks to health, safety or the environment or regulatory concerns.
Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapour may be evolved from heated or agitated material. Use only with adequate ventilation. Do not enter storage areas or confined spaces unless adequately ventilated. The toxic and olfactory (sense of smell) fatigue properties of hydrogen sulfide require that air monitoring alarms and respiratory protection be used where the concentration might be expected to reach a harmful level, such as in an enclosed space, heated transport vessel, or in a spill or leak situation.
Material may contain trace amounts of naturally occurring radioactive material (NORM), which will accumulate in process equipment and storage vessels. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

STORAGE

Ample fire water supply should be available. A fixed sprinkler/deluge system is recommended. The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Outside or detached storage preferred. Storage containers should be earthed and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Substance Name	Form	Limit/Standard			Note	Source
BENZENE		STEL	1 ppm			Supplier
BENZENE		TWA	0.5 ppm			Supplier
BENZENE		STEL	2.5 ppm		Skin	ACGIH
BENZENE		TWA	0.5 ppm		Skin	ACGIH
CYCLOHEXANE		TWA	100 ppm			ACGIH
ETHYL BENZENE		TWA	20 ppm			ACGIH
HYDROGEN SULPHIDE		STEL	14 mg/m3	10 ppm		Supplier
HYDROGEN SULPHIDE		TWA	7 mg/m3	5 ppm		Supplier
HYDROGEN SULPHIDE		STEL	5 ppm			ACGIH
HYDROGEN SULPHIDE		TWA	1 ppm			ACGIH
n-Hexane		TWA	50 ppm		Skin	ACGIH
NAPHTHALENE		STEL	15 ppm		Skin	ACGIH
NAPHTHALENE		TWA	10 ppm		Skin	ACGIH
TOLUENE		TWA	20 ppm			ACGIH
XYLENES		STEL	150 ppm			ACGIH
XYLENES		TWA	100 ppm			ACGIH

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NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Use explosion-proof ventilation equipment to stay below exposure limits.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Positive-pressure, air-supplied respirator in areas where H2S vapours may accumulate.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

Eye Protection: Chemical goggles are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practise good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Colour: Dark Brown
Odour: Rotten Egg
Odour Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.661 - 1.013
Flash Point [Method]: -20°C (-4°F) - 35°C (95°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D
Autoignition Temperature: N/D
Boiling Point / Range: > 20°C (68°F)
Vapour Density (Air = 1): N/D
Vapour Pressure: 0 kPa (0 mm Hg) at 20°C - 106.4 kPa (800 mm Hg) at 20ºC
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Negligible
Viscosity: <7 cSt (7 mm2/sec) at 40ºC
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: < 32°C (90°F)
Decomposition Temperature: N/D

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity: No end point data for material.	Minimally Toxic.

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Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Toxicity (Rat): LD50 > 5000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Skin	
Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: Data available.	May dry the skin leading to discomfort and dermatitis. Based on test data for structurally similar materials.
Eye	
Irritation: Data available.	Irritating and will injure eye tissue. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

For the product itself:

Vapour/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anaesthesia, drowsiness, unconsciousness and other central nervous system effects including death. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Very high exposure (confined spaces / abuse) to light hydrocarbons may result in abnormal heart rhythm (arrhythmias). Concurrent high stress levels and/or co-exposure to high levels of hydrocarbons (above occupational exposure limits), and to heart-stimulating substances like epinephrine, nasal decongestants, asthma drugs, or cardiovascular drugs may initiate arrhythmias.
Crude oil: Contains polycyclic aromatic compounds (PACs). Prolonged and / or repeated exposure by skin or inhalation of certain PACs may cause cancer of the skin, lung, and of other sites of the body. In animal studies, some crudes produced skin tumors in mice, while other crudes produced no tumors. Developmental studies of crude oil in lab animals showed reduced fetal weight and increased fetal resorptions at maternally toxic levels. Repeated dermal exposure to crude oils in rats resulted in toxicity to the blood, liver, thymus, and bone morrow.

Contains:

BENZENE: Caused cancer (acute myeloid leukemia and myelodysplastic syndrome), damage to the blood-producing system, and serious blood disorders in human studies. Caused genetic effects and effects on the immune system in laboratory animal and some human studies. Caused toxicity to the fetus and cancer in laboratory animal studies. HYDROGEN SULPHIDE: Chronic health effects due to repeated exposures to low levels of H2S have not been established. High level (700 ppm) acute exposure can result in sudden death. High concentrations will lead to cardiopulmonary arrest due to nervous system toxicity and pulmonary edema. Lower levels (150 ppm) may overwhelm sense of smell, eliminating warning of exposure. Symptoms of overexposure to H2S include headache, fatigue, insomnia, irritability, and gastrointestinal problems. Repeated exposures to approximately 25 ppm will irritate mucous membranes and the respiratory system and have been implicated in some eye damage. NAPHTHALENE: Exposure to high concentrations of naphthalene may cause destruction of red blood cells, anemia, and cataracts. Naphthalene caused cancer in laboratory animal studies, but the relevance of these findings to humans is uncertain.
N-HEXANE: Prolonged and/or repeated exposures to n-Hexane can cause progressive and potentially irreversible damage to the peripheral nervous system (e.g. fingers, feet, arms, legs, etc.). Simultaneous exposure to Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) and n-Hexane can potentiate the risk of adverse effects from n-Hexane on the peripheral nervous system. n-Hexane has been shown to cause testicular damage at high doses in male rats. The relevance of this effect for humans is unknown. TOLUENE :

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Concentrated, prolonged or deliberate inhalation may cause brain and nervous system damage. Prolonged and repeated exposure of pregnant animals (> 1500 ppm) have been reported to cause adverse fetal developmental effects. ETHYLBENZENE: Caused cancer in laboratory animal studies. The relevance of these findings to humans is uncertain.

XYLENES: High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo/fetus. These effects were often at levels toxic to the mother. The significance of these findings to humans has not been determined.

CMR Status:

Chemical Name	CAS Number	List Citations
BENZENE	71-43-2	1, 4, 5
CYCLOHEXANE	110-82-7	4
ETHYL BENZENE	100-41-4	3, 4
HYDROGEN SULPHIDE	7783-06-4	4
n-Hexane	110-54-3	4
NAPHTHALENE	91-20-3	3, 4
TOLUENE	108-88-3	4
XYLENES	1330-20-7	4

--REGULATORY LISTS SEARCHED--

1 = IARC 1
2 = IARC 2A
3 = IARC 2B
4 = ACGIH ALL
5 = ACGIH A1
6 = ACGIH A2

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

MOBILITY

More volatile component -- Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Less volatile component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Low molecular wt. component -- Expected to be inherently biodegradable

High molecular wt. component -- Expected to biodegrade slowly.

Photolysis:

More water soluble component -- Expected to degrade at a moderate rate in water when exposed to sunlight.

Atmospheric Oxidation:

More volatile component -- Expected to degrade rapidly in air

BIOACCUMULATION POTENTIAL

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Components -- Has the potential to bioaccumulate.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (TDG)

Proper Shipping Name: PETROLEUM CRUDE OIL
Hazard Class & Division: 3
UN Number: 1267
Packing Group: I

LAND (DOT)

Proper Shipping Name: PETROLEUM CRUDE OIL
Hazard Class & Division: 3
ID Number: 1267
Packing Group: I
ERG Number: 128
Label(s): 3
Transport Document Name: UN1267, PETROLEUM CRUDE OIL, 3, PG I

SEA (IMDG)

Proper Shipping Name: PETROLEUM CRUDE OIL
Hazard Class & Division: 3
EMS Number: F-E, S-E
UN Number: 1267
Packing Group: I
Marine Pollutant: Yes

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Label(s): 3
Transport Document Name: UN1267, PETROLEUM CRUDE OIL, 3, PG I, (-20°C c.c.), MARINE POLLUTANT

AIR (IATA)
Proper Shipping Name: FORBIDDEN

SECTION 15 REGULATORY INFORMATION

WHMIS Classification: Class B, Division 2: Flammable Liquids Class D, Division 2, Subdivision B: Toxic Material

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations.

CEPA: All components of this material are either on the Canadian Domestic Substances List (DSL), exempt, or have been notified under CEPA.

Complies with the following national/regional chemical inventory requirements AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

The Following Ingredients are Cited on the Lists Below:

Chemical Name	CAS Number	List Citations
CYCLOHEXANE	110-82-7	6
n-Hexane	110-54-3	6
NAPHTHALENE	91-20-3	6
TOLUENE	108-88-3	6
XYLENES	1330-20-7	6

--REGULATORY LISTS SEARCHED--

1 = TSCA 4
2 = TSCA 5a2
3 = TSCA 5e
4 = TSCA 6
5 = TSCA 12b
6 = NPRI

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
Revision Changes:
Section 09: Boiling Point C(F) information was modified.
Section 09: Flash Point C(F) information was modified.
Section 14: Transport Document Name information was modified.
Section 09: Boiling Point C(F) information was modified.
Section 09: Decomposition Temp - Header information was added.
Section 11: Eye Irritation Test Data information was modified.

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Section 11: Inhalation Lethality Test Comment information was modified.
Section 09: Flash Point C(F) information was modified.
Section 14: Packing Group information was modified.
Section 14: Transport Document Name information was modified.
Section 14: Proper Shipping Name information was modified.
Section 14: Hazard Class & Division - Header information was deleted.
Section 14: Hazard Class information was deleted.
Section 14: UN Number - Header information was deleted.
Section 14: UN Number information was deleted.
Section 14: Packing Group - Header information was deleted.
Section 14: Packing Group information was deleted.
Section 14: Label(s) - Header information was deleted.
Section 14: Label(s) information was deleted.
Section 14: Transport Document Name - Header information was deleted.
Section 14: Transport Document Name information was deleted.
Section 14: Packing Group information was modified.
Section 14: Packing Group information was modified.
Section 14: Transport Document Name information was modified.
Composition: Component table information was modified.
Section 09: Decomposition Temperature information was added.
Section 11: Dermal Irritation Test Data information was modified.

SYNONYMS: DRAYTON VALLEY SWEET CRUDE (PREVIOUSLY CALLED PEMBINA SWEET), MIXED BLEND SWEET CRUDE, PEACE SWEET CRUDE, RAINBOW SWEET CRUDE, RANGELAND SWEET, SWAN HILLS (PREVIOUSLY CALLED FEDERATED) SWEET CRUDE OIL, CRUDE OIL, LOW H2S, CRUDE OIL (0.002 TO <0.005% H2S

PRECAUTIONARY LABEL TEXT:

Contains: PETROLEUM CRUDE OIL

WHMIS Classification: Class B, Division 2: Flammable Liquids Class D, Division 2, Subdivision B: Toxic Material

HEALTH HAZARDS

Irritating to skin. If swallowed, may be aspirated and cause lung damage.

PHYSICAL HAZARDS

FLAMMABLE. In use, may form flammable/explosive vapour-air mixture. Material can accumulate static charges which may cause an ignition.

PRECAUTIONS

H2S is present. Avoid all personal contact. Prevent exposure to ignition sources, for example use non-sparking tools and explosion-proof equipment. Potentially toxic/irritating fumes/vapour may be evolved from heated or agitated material. Use only with adequate ventilation. Do not enter storage areas or confined spaces unless adequately ventilated. Use proper bonding and/or earthing procedures.However, bonding and earthing may not eliminate the hazard from static accumulation. Harmful amounts of H2S may be present.

FIRST AID

Inhalation: Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

Eye: Flush thoroughly with water for at least 15 minutes. Get medical assistance.

Oral: Seek immediate medical attention. Do not induce vomiting.

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Skin: Remove contaminated clothing. Dry wipe exposed skin and cleanse with waterless hand cleaner and follow by washing thoroughly with soap and water. For those providing assistance, avoid further skin contact to yourself or others. Wear impervious gloves. Launder contaminated clothing separately before reuse. Discard contaminated articles that cannot be laundered. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

FIRE FIGHTING MEDIA
Use water fog, foam, dry chemical or carbon dioxide (CO_2) to extinguish flames.

SPILL/LEAK
Land Spill: Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas. A vapour-suppressing foam may be used to reduce vapour. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Water Spill: Stop leak if you can do so without risk. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Report spills as required to appropriate authorities. If permitted by regulatory authorities, the use of suitable dispersants should be considered where permitted in local oil spill contingency plans.
Use
Not intended or suitable for use in or around a household or dwelling.

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Prepared by: Imperial Oil Limited, IH and Product Safety

ENBRIDGE

Safety Data Sheet

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Section 1: Identification

PRODUCT IDENTIFIER	Petroleum Crude Oil—Sweet	
OTHER MEANS OF IDENTIFICATION	**UN-Number**	UN1267
	Synonyms	Mixed Sweet Blend (MSW) , Pembina (P), Gibson Light (MGL), Joarcam (MLN), Pembina Sweet Blend (PSB), Rangeland Sweet (RSW), Rainbow Light (RA), Federated (FD), Light Smiley (MSY), Manitoba Sweet Tundra (MST)
	Chemical Category	Crude oils—extremely flammable
RECOMMENDED USE	No information available	
RESTRICTIONS OF USE	No information available	
SUPPLIER INFORMATION	Enbridge Pipelines Inc. 10201 Jasper Avenue Edmonton, Alberta T5J 3N7 Canada TEL: 1-780-420-5210	
EMERGENCY CONTACT INFORMATION	**CHEMTREC**	1-800-424-9300 for US 703- 527- 3887 outside US
	CANUTEC (Canadian Transportation)	613-996-6666

Section 2: Hazards Identification

CLASSIFICATION	Skin Irritation	Category 3
	Eye Irritation	Category 2
	Germ Cell Mutagenicity	Category 1B
	Carcinogenicity	Category 1A
	Reproductive Toxicity	Category 2
	Specific Target Organ Systemic Toxicity (Single Exposure)	Category 3
	Specific Target Organ Toxicity (Repeated Exposure)	Category 1
	Aspiration Toxicity	Category 1
	Flammable liquids	Category 1

LABEL ELEMENTS

Signal Word

Danger

Hazard Pictograms

Hazard Statements

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- Causes skin irritation.
- Causes serious eye irritation.
- May cause genetic defects.
- May cause cancer.
- Suspected of damaging fertility or the unborn child.
- May cause respiratory irritation.
- Causes damage to organs through prolonged or repeated exposure.
- May be fatal if swallowed and enters airways.
- Extremely flammable liquid and vapor.
- May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS

Prevention

- Wash face, hands and any exposed skin thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Do not eat, drink or smoke when using this product.
- Keep away from heat/sparks/open flames/hot surfaces.
- Keep container tightly closed.
- No smoking.
- Ground/bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- In case of inadequate ventilation wear respiratory protection.

Response

- IF EXPOSED or concerned: Get medical advice/attention.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Do NOT induce vomiting.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower and soap.
- In case of fire: Use CO_2, dry chemical, or foam for extinction.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If SKIN irritation occurs: Get medical advice/attention.
- If EYE irritation persists: Get medical advice/attention.

Storage/Disposal

- Store locked up and keep cool.
- Store in a well-ventilated place. Keep container tightly closed.
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

OTHER INFORMATION

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.
- Very toxic to aquatic life with long lasting effects.

Section 3: Composition/Information on Ingredients

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COMPONENT NAME	CAS NUMBER	PERCENTAGE (%)*	NOTES
1,2,4-Trimethylbenzene	95-63-6	0-1	
2-Methylbutane (In Liquid form)	78-78-4	0-30	
Benzene	71-43-2	0-3	
Butane	106-97-8	0-5	
Cyclohexane	110-82-7	0-5	
Cyclopentane	287-92-3	0-5	
Decane	124-18-5	0-5	
Ethane	74-84-0	0-60	
Ethylbenzene	100-41-4	0-5	
Heptane	142-82-5	0-20	
Hexane	110-54-3	0-20	
Hydrogen Sulfide	7783-06-4	0-1	
Isobutane	75-28-5	0-5	
Methylcyclohexane	108-87-2	0-6	
Methylcyclopentane	96-37-7	0-6	
Natural Gas Condensate	68919-39-1	0-100	
Natural Gas Condensates (petroleum)	64741-47-5	0-25	
Nonane	111-84-2	0-6	
Octane	111-65-9	0-15	
Pentane	109-66-0	0-30	
Petroleum	8002-05-9	0-100	
Propane	74-98-6	0-60	
Toluene	108-88-3	0-5	
Xylene	1330-20-7	0-5	

**Values do not reflect absolute minimums and maximums; those values may vary from time to time.*

Section 4: First Aid Measures

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DESCRIPTION OF NECESSARY MEASURES	**Inhalation**	• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If irritation persists: Get medical advice/attention.
	Skin	• IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
	Eye	• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
	Ingestion	• Do NOT induce vomiting. Call a physician or poison control center. • Aspiration hazard if swallowed—can enter lungs and cause damage.
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	**Refer to Section 11 - Toxicological Information**	
INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED, IF NECESSARY	**Note to the Physician**	• Aspiration hazard. Symptoms may be delayed. • Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of this material (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for development of cardiac arrhythmias. • Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Section 5: Fire Fighting Measures

EXTINGUISHING MEDIA	**Suitable Extinguishing Media**	• SMALL FIRES: Dry chemical, CO_2, water spray or regular foam. • LARGE FIRE: Water spray, fog or regular foam.
	Unsuitable Extinguishing Media	• CAUTION: Use of water spray when fighting fire may be inefficient. • Do not use straight streams.
FIREFIGHTING PROCEDURES		• FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. • FIRE INVOLVING TANKS OR CAR/TRAILER LOADS: If impossible to extinguish, protect surroundings and allow fire to burn itself out. • Stay upwind. • Ventilate closed spaces before entering. • Fire fighters should wear complete protective clothing including self-contained breathing apparatus. • 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. • FIRE: When a large quantity of this material is involved in a major fire, consider an initial evacuation distance of 300 meters (1000 feet) in all directions. • Move containers from fire area if you can do it without risk.

- LARGE FIRES: Use water spray or fog; do not use straight streams.
- LARGE FIRES: If insufficient water supply: knock down vapors only. If this is impossible, withdraw from area and let fire burn.
- LARGE FIRES: Flood fire area with large quantities of water, while knocking down vapors with water fog.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

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- Vapors may travel to source of ignition and flash back.
- Air/vapor mixtures may explode when ignited.
- Vapors may accumulate in confined areas (basement, tanks, hopper/tank cars etc.).
- Will be easily ignited by heat, sparks or flames.
- Runoff to sewer may create fire or explosion hazard.
- Vapor explosion hazard indoors, outdoors or in sewers.
- MAY EXPLODE AND THROW FRAGMENTS 1600 meters (1 MILE) OR MORE IF FIRE REACHES CARGO.
- May create vapor/air explosion hazard indoors, outdoors or in sewers.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).

EXPLOSION DATA

Hazardous Combustion Products	• Carbon monoxide. Carbon dioxide (CO_2). Nitrogen oxides (NOx). Oxides of sulfur. • Aldehydes, aromatic and other hydrocarbons.
Sensitivity to Mechanical Impact	• None.
Sensitivity to Static Discharge	• Yes.

PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

- As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
- Water spray is recommended to cool or protect exposed materials or structures. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced firefighters.
- Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.
- Water spray may be useful in minimizing or dispersing vapors.
- Long-duration fires involving diluent stored in tanks may result in a boilover.
- For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear.

Section 6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions	• Evacuate personnel to safe areas. • Remove all sources of ignition. • Deny entry to unauthorized and unprotected personnel. • Use personal protective equipment. • Avoid contact with skin, eyes and clothing. • Stop leak if you can do it without risk. • Keep people away from and upwind of spill/leak. • Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. • Ventilate enclosed areas. • Do not walk through spilled material.
Protective Equipment	• Wear appropriate breathing apparatus (if applicable) and protective clothing.

Emergency Procedures	• ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area) Keep unauthorized personnel away. Evacuate area. Keep out of low areas. Stop leak if you can do it without risk. • Report spills to local or federal authorities as appropriate or required.

ENVIRONMENTAL PRECAUTIONS

• Avoid run off to waterways and sewers. Do NOT wash away into sewer. Prevent entry into waterways, sewers, basements or confined areas. Runoff from fire control may cause pollution.

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METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Methods for Containment	• Stop leak if you can do it without risk. • Contain and recover liquid when possible. • A vapor suppressing foam may be used to reduce vapors. • Dike far ahead of spill; use dry sand to contain the flow of material; contain water spills by booming. • Use water spray to reduce vapors or divert vapor cloud drift. • A fine water spray remotely directed to the edge of the spill pool can be used to direct and maintain a hot flare fire which will burn the spilled material in a controlled manner.
Methods for Cleaning Up	• Clean up spill immediately. • LARGE SPILLS: DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST. • SMALL LIQUID SPILLS: Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal. • Use appropriate Personal Protective Equipment (PPE). • Use clean non-sparking tools to collect absorbed material. • Vacuum spilled material. • Try to work upwind of spill. • All equipment used when handling the product must be grounded. • Recover and return free product to proper containers • Use suitable absorbent materials such as vermiculite, sands, soil, or clay to clean up residual liquids. • Do not place spilled materials back in the original container. • Do not flush to sewer or allow to enter waterways.

Section 7: Handling and Storage

PRECAUTIONS FOR SAFE HANDLING

Handling	• All equipment used when handling the product must be grounded. Avoid contact with heat and ignition sources and oxidizers. Do not breathe (dust, vapor or spray mist). Do not use in areas without adequate ventilation. Do not use sparking tools. Keep away from heat, sparks, and flame. No open flames, no sparks and no smoking. Use only with adequate ventilation. Do not use or store near heat or open flame. Keep away from fire, sparks and heated surfaces. • The use of explosion-proof equipment is recommended and may be required (see appropriate fire codes). • The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits. • Take precautionary measures against static discharges.

Handling	• Do not cut drill, grind or weld on empty containers since they may contain explosive residues. • Stay upwind and vent open hatches before uploading. • Avoid contact with skin, eyes and clothing. • Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. • Wear personal protective equipment. • Remove and wash contaminated clothing before re-use. • Do not eat, drink or smoke when using this product. • Do not take internally. • Wash thoroughly after handling. • Empty containers pose a potential fire and explosion hazard.

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CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage	• Ventilate enclosed areas. • Store in a well-ventilated place. • Keep container tightly closed. • Store locked up. • Avoid shock, impact, friction, and rough handling. Do not use sparking tools. • Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources. • Keep away from sources of ignition. • No Smoking. • Do not enter confined spaces such as tanks or pits without following proper entry procedures. • Store in properly closed containers that are appropriately labeled and in a cool well-ventilated area. • Harmful concentrations of hydrogen sulfide (H_2S) gas can accumulate in excavations and low-lying areas as well as the vapor space of storage and bulk transport compartments. • Keep away from open flames, hot surfaces and sources of ignition. • Keep product and empty container away from heat and sources of ignition. • Storage containers should be grounded and bonded. • Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge. • Store away from incompatible materials.
Incompatible Products	• Strong oxidizers such as nitrates, chlorates, peroxides, chlorine.

Section 8: Exposure Controls/Personal Protection

CONTROL PARAMETERS: EXPOSURE GUIDELINES

CHEMICAL NAME	ACGIH	OSHA	NIOSH
1,2,4-Trimethylbenzene	TWA 25 ppm	–	TWA 25 ppm TWA 125 mg/m^3
2-Methylbutane (In Liquid form)	TWA 600 ppm	–	–
Benzene	TLV 0.5 ppm TLV 1.6 mg/m^3 STEL 2.5 ppm STEL 8 mg/m^3	PEL 1 ppm STEL 5 ppm	TWA 0.1 ppm STEL 1 ppm IDLH 500 ppm
Benzene, trimethyl-	TLV 25 ppm	–	–

Butane	STEL 1000 ppm	–	TWA 800 ppm TWA 1900 mg/m^3
Cyclohexane	TLV 100 ppm TLV 334 mg/m^3	PEL 300 ppm PEL 1050 mg/m^3	TWA 300 ppm TWA 1050 mg/m^3 IDLH 1300 ppm
Cyclopentane	TLV 600 ppm	–	TWA 600 ppm TWA 1720 mg/m^3
Ethane	TLV 1000 ppm (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	–	–
Ethylbenzene	TLV 20 ppm TLV 87 mg/m^3	PEL 100 ppm PEL 435 mg/m^3	TWA 100 ppm TWA 435 mg/m^3 STEL 125 ppm STEL 545 mg/m^3 IDLH 800 ppm
Heptane	TLV 400 ppm TLV 1640 mg/m^3 STEL 500 ppm STEL 2000 mg/m^3	PEL 500 ppm PEL 2000 mg/m^3	TWA 85 ppm TWA 350 mg/m^3 Ceiling 440 ppm Ceiling 1800 mg/m^3 IDLH 750 ppm
Hexane	TLV 50 ppm TLV 176 mg/m^3	PEL 500 ppm PEL 1800 mg/m^3	TWA 50 ppm TWA 180 mg/m^3 IDLH 1100 ppm
Hydrogen sulfide	TLV 1 ppm TLV 1.4 mg/m^3 STEL 5 ppm STEL 7 mg/m^3	Ceiling 20 ppm	Ceiling 10 ppm Ceiling 15 mg/m^3 IDLH 100 ppm
Isobutane	TWA 1000 ppm		
MethylCyclohexane	TLV 400 ppm TLV 1610 mg/m^3	PEL 500 ppm PEL 2000 mg/m^3	TWA 400 ppm TWA 1600 mg/m^3 IDLH 1200 ppm
Nonane	TLV 200 ppm TLV 1050 mg/m^3	–	TWA 200 ppm TWA 1050 mg/m^3
Octane	TLV 300 ppm TLV 1401 mg/m^3	PEL 500 ppm PEL 2350 mg/m^3	TWA 75 ppm TWA 350 mg/m^3 Ceiling 385 ppm Ceiling 1800 mg/m^3 IDLH 1000 ppm
Pentane	TLV 600 ppm TLV 1770 mg/m^3	PEL 1000 ppm PEL 2950 mg/m^3	TWA 120 ppm TWA 350 mg/m^3 Ceiling 610 ppm Ceiling 1800 mg/m^3 IDLH 1500 ppm

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Propane	TLV 1000 ppm (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	TWA 1000 ppm TWA 1800 mg/m^3	TWA 1000 ppm TWA 1800 mg/m^3
Toluene	TLV 20 ppm TLV 75 mg/m^3	PEL 200 ppm STEL 300 mg/m^3	TWA 100 ppm TWA 375 mg/m^3 STEL 150 ppm STEL 560 mg/m^3 IDLH 500 ppm
Xylenes	TLV 100 ppm TLV 434 mg/m^3 STEL 150 ppm STEL 651 mg/m^3	PEL 100 ppm PEL 435 mg/m^3	TWA 100 ppm TWA 435 mg/m^3 STEL 150 ppm STEL 655 mg/m^3 IDLH 900 ppm

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APPROPRIATE ENGINEERING CONTROLS

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Prevent vapor build up by providing adequate ventilation during and after use. Use only appropriately classified electrical equipment.

INDIVIDUAL PROTECTION MEASURES

Eye and Face	• Wear face shield and eye protection.
Skin and Body	• The use of gloves (nitrile or neoprene) is advised to prevent skin contact and possible irritation. • Wear protective gloves/protective clothing/eye protection/face protection. Wear long sleeves and/or protective coveralls.
Respiratory	• Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.
General Hygiene Measures	• Handle in accordance with good industrial hygiene and safety practice.

Section 9: Physical and Chemical Properties

MATERIAL DESCRIPTION

Physical State	Liquid	**Odor**	Petroleum like odor
Substance Type	Mixture	**Odor Threshold**	No data available
Appearance	Yellow/green to Brown/black liquid		

PROPERTIES

pH	No data available	**Vapor pressure**	10 to 103 kPa @ 37.9°C
Melting Point/ Freezing Point	No data available	**Vapor density**	>1 Air=1
Boiling Point/ Boiling Range	-20 to 722°C -4 to 1331.6°F	**Relative density**	No data available

Flash Point	-40 to 100 °C -40 to 212 °F	**Water Solubility**	Negligible
Evaporation Rate	No data available	**Partition coefficient: n-octanol/water**	No data available
Flammability (solid, gas)	No data available	**Autoignition temperature**	No data available
Upper Flammability Limit	No data available	**Decomposition temperature**	No data available
Lower Flammability Limit	No data available	**Specific Gravity**	0.65-1.1
Viscosity	No data available		

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Section 10: Stability and Reactivity

REACTIVITY	Chlorine Dioxide
CHEMICAL STABILITY	Stable at 70 °F, 760 mm Hg pressure
POSSIBILITY OF HAZARDOUS REACTIONS	None under normal processing
CONDITIONS TO AVOID	Excessive heat, sources of ignition, sparks, open flames, and buildup of static electricity
INCOMPATIBLE MATERIALS	Strong oxidizers such as nitrates, chlorates, peroxides, chlorine
HAZARDOUS DECOMPOSITION PRODUCTS	Combustion produces carbon monoxide, aldehydes, sulfur dioxide, aromatic and other hydrocarbons
HAZARDOUS POLYMERIZATION	Will not occur

Section 11: Toxicological Information

INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

Inhalation	• May cause irritation of respiratory tract. May cause drowsiness and dizziness.
Eye Contact	• Causes serious eye irritation.
Skin Contact	• Causes skin irritation.
Ingestion	• Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. • Potential for aspiration if swallowed. • Aspiration may cause pulmonary edema and pneumonitis.

TOXICOLOGICAL DATA

CHEMICAL NAME	LD50 ORAL	LD50 DERMAL	LC50 INHALATION
1,2,4-Trimethylbenzene	5 g/kg (Rat)	–	18000 mg/m³ (Rat) 4h
2-Methylbutane (In Liquid form)	–	–	= 150,000 mg/m³ (Rat) 2 h
Benzene	1800 mg/kg (Rat)	–	13050 - 14380 ppm (Rat) 4 h
Butane	–	–	658 mg/L (Rat) 4 h
Cyclohexane	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 13.9 mg/L (Rat) 4 h
Cyclopentane	11400 mg/kg (Rat)	–	72 g/m³ (Mouse)
Decane	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	–
Ethylbenzene	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
Heptane	–	= 3000 mg/kg (Rabbit)	= 103 g/m³ (Rat) 4 h
Hexane	= 25 g/kg (Rat)	= 3000 mg/kg (Rabbit)	= 48000 ppm (Rat) 4 h
Hydrogen sulfide	–	–	= 444 ppm (Rat)
Isobutane	–	–	= 658,000 mg/m³ (Rat) 4 h
MethylCyclohexane	> 3200 mg/kg (Rat)	–	–
Natural gas condensates (petroleum)	–	–	= 600 mg/m³ (Rat)
Nonane	–	–	= 3200 ppm (Rat) 4 h
Octane	–	–	= 118 g/m³ (Rat) 4 h = 25260 ppm (Rat) 4 h
Pentane	>2000 mg/kg (Rat)	–	364 g/cu (Rat) 4 h
Petroleum	>4300 mg/kg (Rat)	–	–
Propane	–	–	>800000 ppm (Rat) 15 min
Hydrogen sulfide	–	–	= 444 ppm (Rat)
Toluene	2.6 to 7.5 g/kg (Rat)	14.1 ml/kg (Rabbit)	–
Xylenes	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit) > 1700 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h

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SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

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Benzene	• Repeated or prolonged exposure to benzene at concentrations in excess of the TLV may cause serious injury to blood-forming organs. Significant chronic exposure to benzene vapor has been reported to produce various blood disorders ranging from anemia to certain forms of leukemia (cancer) in humans. Benzene produced tumors in rats and mice in lifetime chronic toxicity studies, but the response has not been consistent across species, strain, sex or route of exposure. Animal studies on benzene have demonstrated immune toxicity, chromosomal aberrations, testicular effects and alterations in reproductive cycles and embryo/fetotoxicity, but not teratogenicity.
Ethylbenzene	**Carcinogenicity:** Rats and mice exposed to 0, 75, 250, or 750 ppm ethyl benzene in a two year inhalation study demonstrated limited evidence of kidney, liver, and lung cancer. Ethyl benzene has been listed as a possible human carcinogen by IARC. **Target Organs:** In rats and mice exposed to 0, 75, 250, or 750 ppm ethyl benzene in a two year inhalation study there was mild damage to the kidney (tubular hyperplasia), liver (eosinophilio foci, hypertrophy, necrosis), lung (alveolar epithelium metaplasia), thyroid (hyperplasia), thyroid (hyperplasia) and pituitary (hyperplasia). In animal models (particularly rats), ethyl benzene affects the auditory function mainly in the cochlear mid-frequency range and ototoxicity was observed after combined exposure to noise and ethyl benzene. There is no evidence of either ethyl benzene-induced hearing losses or ototoxicity with combined exposure to ethyl benzene and noise in workers.
Hexane	• This product may contain hexane at a level of >1.0%. Studies in laboratory animals have produced systemic toxicity in blood, spleen and lungs. Fetotoxicity has been observed at hexane concentrations that produced maternal toxicity. Long term exposure to high concentrations of hexane has been shown to cause testicular effects and nervous system damage.
Hydrogen Sulfide Gas (H_2S)	• Toxic by inhalation. Prolonged breathing of 50-100 ppm H_2S vapors can produce eye and respiratory tract irritation. Higher concentration (250-600 ppm) for 15-30 minutes can produce headache, dizziness, nervousness, nausea and pulmonary edema or bronchial pneumonia. Concentrations of >1000 ppm will cause immediate unconsciousness and death through respiratory paralysis. Rats and mice exposed to 80 ppm H_2S, 6 hrs/day, 5 days/week for 10 weeks, did not produce any toxicity except for irritation of nasal passages. H_2S did not affect reproduction and development (birth defects or neurotoxicity) in rats exposed to concentrations of 75-80 ppm or 150 ppm H_2S, respectively. Over the years a number of acute cases of H_2S poisoning have been reported. Complete and rapid recovery is the general rule. However, if the exposure was sufficiently intense and sustained causing cerebral hypoxia (lack of oxygen to the brain), neurologic effects such as amnesia, intention tremors or brain damage are possible.
Toluene	**Carcinogenicity:** Exposure of rats and mice to toluene at concentrations ranging from 120-1200 ppm for two years did not demonstrate evidence of carcinogenicity. Toluene has not been listed as a carcinogen by IARC. **Target Organs:** Epidemiology studies suggest that chronic occupational overexposure to toluene may damage color vision. Subchronic and chronic inhalation studies with toluene produced kidney and liver damage, hearing loss and central nervous system (brain) damage in laboratory animals. Intentional misuse by deliberate inhalation of high concentrations of toluene has been shown to cause liver, kidney, and central nervous system damage, including hearing loss and visual disturbances. **Reproductive Toxicity:** Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. Decreased fetal body weight and increased skeletal variations in both inhalation and oral studies, but only at doses that were maternally toxic. No fetal toxicity was seen at doses that were not maternally toxic. Decreased sperm counts have been observed in male rats in the absence of a reduction in fertility. Toluene has been reported to cause mental or growth retardation in the children of solvent abusers who directly inhale toluene during pregnancy.

Xylenes	• Gross overexposure or severe poisoning incidents in humans to xylenes has been reported to cause lung, liver, kidney, heart and brain damage as well as neurologic disturbances. Laboratory animals exposed to high dose of xylenes showed evidence of effects in the liver, kidneys, lungs, spleen, heart and adrenals, Exposure of pregnant rats, mice and rabbits during gestation to significant concentrations of xylenes produced maternal, fetal and developmental toxicity (skeletal retardation, cleft palate, and wavy ribs) generally at maternally toxic doses. These types of fetotoxic effects have been associated with maternal toxicity. Repeated inhalation of high xylene concentrations has shown impairment of performance abilities (behavioral tests) in animals and man. Xylenes produced a mild frequency hearing loss in rats subchronically exposed to high concentrations of xylenes.

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DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT- AND LONG-TERM EXPOSURE

Sensitization	• No information available
Mutagenic Effects	• May cause genetic defects
Carcinogenicity	• May cause cancer

CARCINOGENIC INFORMATION

CHEMICAL NAME	ACGIH	ACGIH SKIN*	IARC	NTP	OSHA
Benzene	A1	X	Group 1	Known	X
Ethylbenzene	A3	–	Group 2B	Evidence	X
Hexane	–	X	–	–	–
Toluene	A4	–	Group 3	Evidence	–
Xylenes	A4	–	Group 3	Evidence	–

**ACGIH Skin designation refers to the potential significant contribution of overall exposure by cutaneous route, including mucous membranes and eyes, from airborne exposure to gases, vapor, or liquid OR by direct skin contact.*

REPRODUCTIVE TOXICITY

• Suspected of damaging fertility or the unborn child.

STOT—SINGLE EXPOSURE

• May cause drowsiness and dizziness.

STOT—REPEATED EXPOSURE

• Causes damage to organs through prolonged or repeated exposure.

ASPIRATION HAZARD

May be fatal if swallowed and enters airways Risk of serious damage to the lungs (by aspiration).

Section 12: Ecological Information

ECOTOXICITY

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CHEMICAL NAME	TOXICITY TO ALGAE	TOXICITY TO FISH	DAPHNIA MAGNA (WATER FLEA)	OTHER TOXICITY
1,2,4-Trimethylbenzene	–	LC50 96 h: 7.72 mg/L (Pimephales promelas)	EC50 48h: 30 mmol/cu (Daphnia magna)	LC50 24h: 100 mmol/cu Artemia salina (Brine Shrimp)
2-Methylbutane (In Liquid form)			EC50 48 h: = 2.3 mg/L (Daphnia magna)	
Benzene	EC50 72 h: = 29 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 10.7 - 14.7 mg/L flow-through (Pimephales promelas) LC50 96 h: = 5.3 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 22.49 mg/L static (Lepomis macrochirus) LC50 96 h: = 28.6 mg/L static (Poecilia reticulata) LC50 96 h: 22330 - 41160 µg/L static (Pimephales promelas) LC50 96 h: 70000 - 142000 µg/L static (Lepomis macrochirus)	EC50 48 h: 8.76 - 15.6 mg/L Static (Daphnia magna) EC50 48 h: = 10 mg/L (Daphnia magna)	–
Cyclohexane	EC50 72 h: > 500 mg/L (Desmodesmus subspicatus)	LC50 96 h: 3.96 - 5.18 mg/L flow-through (Pimephales promelas) LC50 96 h: 23.03 - 42.07 mg/L static (Pimephales promelas) LC50 96 h: 24.99 - 44.69 mg/L static (Lepomis macrochirus) LC50 96 h: 48.87 - 68.76 mg/L static (Poecilia reticulata)	EC50 24 h: > 400 mg/L (Daphnia magna	EC50 = 85.5 mg/L 5 min EC50 = 93 mg/L 10 min (Microorganisms)
Cyclopentane			EC50 48 h: 150 nmol/cu m (Daphnia magna)	LC50 24h: 280 mmol/cu m Artemia salina (Brine Shrimp)
Decane	EC50 24 h: = 0.043 mg/L (Chlorella vulgaris)	–	EC50 48 h: = 0.029 mg/L (Daphnia magna)	–
Ethylbenzene	EC50 72 h: = 4.6 mg/L (Pseudokirchneriella subcapitata) EC50 96 h: > 438 mg/L (Pseudokirchneriella subcapitata) EC50 72 h: 2.6 - 11.3 mg/L static (Pseudokirchneriella subcapitata) EC50 96 h: 1.7 - 7.6 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: = 11 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: 11.0 - 18.0 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 4.2 mg/L semi-static (Oncorhynchus mykiss) LC50 96 h: 7.55 - 11 mg/L flow-through (Pimephales promelas) LC50 96 h: = 32 mg/L static (Lepomis macrochirus) LC50 96 h: 9.1 - 15.6 mg/L static (Pimephales promelas) LC50 96 h: = 9.6 mg/L static (Poecilia reticulata)	EC50 48 h: 1.8 - 2.4 mg/L (Daphnia magna)	EC50 = 9.68 mg/L 30 min EC50 = 96mg/L 24 h (Microorganisms)

ECOTOXICITY

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CHEMICAL NAME	TOXICITY TO ALGAE	TOXICITY TO FISH	DAPHNIA MAGNA (WATER FLEA)	OTHER TOXICITY
Heptane	–	LC50 96 h: = 375.0 mg/L (Cichlid fish)	EC50 24 h: > 10 mg/L (Daphnia magna)	–
Hexane	–	LC50 96 h: 2.1 - 2.98 mg/L flow-through (Pimephales promelas)	EC50 24 h: > 1000 mg/L (Daphnia magna)	–
Hydrogen sulfide	–	LC50 96h: 49 µg/l Oncorhynchus mykiss (Rainbow Trout) eggs LC50 24h: 1059.7 µg/l Pimephales promelas (Fathead Minnow)	EC50 48h: 62 µg/l Gammarus pseudolimnaeus (Scud)	–
MethylCyclohexane	–	LC50 96hr: 72.0 mg/l (Golden Shiner)	–	–
Natural gas condensates (petroleum)	–	LC50 96 h: = 119 mg/L static (Alburnus alburnus) LC50 96 h: = 82 mg/L static (Cyprinodon variegatus)	EC50 24 h: = 170 mg/L (Daphnia magna)	–
Octane	–	–	EC50 48 h: = 0.38 mg/L (water flea) EC50 48 h: = 0.02856 mg/L (Daphnia magna)	EC50 = 890 mg/L 30 min (Microorganisms) EC50 <1.67hr: 120 µg/l Mytilus edulis (Common Bay Mussel)
Pentane	–	–	EC50 48h: 135 mmol/cu	LC50 24h: 165 mmol/cu Artemia salina (Brine Shrimp)
Toluene	EC50: >433 mg/L Pseudokirchneriella subcapitata 96 h EC50: 12.5 mg/L Pseudokirchneriella subcapitata 72 h static	LC50: 15.22 - 19.05 mg/L Pimephales promelas 96 h flow-through LC50: 12.6 mg/L Pimephales promelas 96 h static LC50: 5.89 - 7.81 mg/L Oncorhynchus mykiss 96 h flow-through LC50: 14.1 - 17.16 mg/L Oncorhynchus mykiss 96 h static LC50: 5.8 mg/L Oncorhynchus mykiss 96 h semi-static LC50: 11.0-15.0 mg/L Lepomis macrochirus 96 h static LC50: 54 mg/L Oryzias latipes 96 h static LC50: 28.2 mg/L Poecilia reticulata 96 h semi-static LC50: 50.87-70.34 mg/L Poecilia reticulata 96 h static	EC50 48 h: 5.46 - 9.83 mg/L Static (Daphnia magna) EC50 48 h: = 11.5 mg/L (Daphnia magna)	EC50 = 19.7 mg/L 30 min (Microorganisms)

ECOTOXICITY

CHEMICAL NAME	TOXICITY TO ALGAE	TOXICITY TO FISH	DAPHNIA MAGNA (WATER FLEA)	OTHER TOXICITY
Xylenes	EC50 72 h: = 11 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: = 13.4 mg/L flow-through (Pimephales promelas) LC50 96 h: 2.661 - 4.093 mg/L static (Oncorhynchus mykiss) LC50 96 h: 13.5 - 17.3 mg/L (Oncorhynchus mykiss) LC50 96 h: 13.1 - 16.5 mg/L flow-through (Lepomis macrochirus)	EC50 48 h: = 3.82 mg/L (water flea) LC50 48 h: = 0.6 mg/L (Gammarus lacustris)	-

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PERSISTENCE AND DEGRADABILITY

- No information available

BIOACCUMULATIVE POTENTIAL

CHEMICAL	LOG POW
1,2,4-Trimethylbenzene	3.78
2-Methylbutane (In Liquid form)	2.72
Benzene	1.83
Butane	2.89
YCyclohexane	3.44
Cyclopentane	3.00
Decane	5.1
Ethane	1.81
Ethylbenzene	3.118
Heptane	4.66
Hexane	3.90
Hydrogen Sulfide	0.45
Isobutane	2.76
Methylcyclohexane	3.61
Methylcyclopentane	3.37
Nonane	5.65
Octane	5.18
Pentane	3.39
Propane	2.36
Toluene	2.65
Xylene	2.77-3.15

MOBILITY IN SOIL

CHEMICAL	EXPECTED SOIL MOBILITY
1,2,4-Trimethylbenzene	Low
2-Methylbutane (In Liquid form)	Low
Benzene	High
Butane	Low
Cyclohexane	Moderate
Cyclopentane	Moderate
Decane	Immobile
Ethane	Very High
Ethylbenzene	Low
Heptane	Moderate
Hexane	High
Isobutane	Very High
Methylcyclopentane	Low
Nonane	Immobile
Octane	Immobile
Pentane	High
Propane	Moderate
Toluene	High to Moderate
Xylene	Very High to Moderate

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OTHER ADVERSE EFFECTS

- No information available

Section 13: Disposal Considerations

WASTE TREATMENT METHODS

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Product Waste

- This product, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA RCRA (40 CFR 261), Environment Canada, or other State, Provincial, and local regulations. If this product is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.
- This product could also contain benzene at >0.5 ppm and could exhibit the characteristic of "toxicity" (D018) as determined by the toxicity characteristic leaching procedure (TCLP).
- This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s).
- It is the responsibility of the user to consult federal, state and local waste regulations to determine appropriate disposal options.

Packaging Waste

- Container contents should be completely used and containers should be emptied prior to discard.
- Container could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations.
- Larger empty containers, such as drums, should be returned to the distributor or to a drum re-conditioner.
- To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

Section 14: Transport Information

****CHART NAME****

	UN NUMBER	PROPER SHIPPING NAME	TRANSPORT HAZARD CLASS	PACKING GROUP	ENVIRONMENTAL HAZARD
DOT	UN1267	Petroleum Crude Oil	3	I	Emergency response guide number: 129
TDG	UN1267	Petroleum Crude Oil	3	I	Marine Pullutant
IMO/IMDG	UN1267	Petroleum Crude Oil	3	I	Marine Pullutant
IATA/ICAO	UN1267	Petroleum Crude Oil	3	I	ERG Code 3L

SPECIAL RECAUTIONS FOR USER

- None

Section 15: Regulatory Information

U.S.—CERCLA/SARA HAZARDOUS SUBSTANCES AND THEIR REPORTABLE QUANTITIES

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COMPONENT	CAS #	AMOUNT
1,2,4-Trimethylbenzene	95-63-6	Not Listed
2-Methylbutane (In Liquid form)	78-78-4	Not Listed
Benzene	71-43-2	10 lb final RQ; 4.54 kg final RQ
Butane	106-97-8	Not Listed
Cyclohexane	110-82-7	1000 lb final RQ; 454 kg final RQ
Cyclopentane	287-92-3	Not Listed
Decane	124-18-5	Not Listed
Ethane	74-84-0	Not Listed
Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ
Heptane	142-82-5	Not Listed
Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ
Hydrogen Sulfide	7783-06-4	100 lb final RQ; 45.4 kg final RQ
Isobutane	75-28-5	Not Listed
Methylcyclohexane	108-87-2	Not Listed
Methylcyclopentane	96-37-7	Not Listed
Natural Gas Condensate	68919-39-1	Not Listed
Natural gas condensates (petroleum)	64741-47-5	Not Listed
Nonane	111-84-2	Not Listed
Octane	111-65-9	Not Listed
Pentane	109-66-0	Not Listed
Petroleum	8002-05-9	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ

U.S.—CWA (CLEAN WATER ACT)—REPORTABLE QUANTITIES OF DESIGNATED HAZARDOUS SUBSTANCES

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COMPONENT	CAS #	AMOUNT
1,2,4-Trimethylbenzene	95-63-6	Not Listed
2-Methylbutane (In Liquid form)	78-78-4	Not Listed
Benzene	71-43-2	10 lb RQ
Butane	106-97-8	Not Listed
Cyclohexane	110-82-7	1000 lb RQ
Cyclopentane	287-92-3	Not Listed
Decane	124-18-5	Not Listed
Ethane	74-84-0	Not Listed
Ethylbenzene	100-41-4	1000 lb RQ
Heptane	142-82-5	Not Listed
Hexane	110-54-3	Not Listed
Hydrogen Sulfide	7783-06-4	100 lb RQ
Isobutane	75-28-5	Not Listed
Methylcyclohexane	108-87-2	Not Listed
Methylcyclopentane	96-37-7	Not Listed
Natural Gas Condensate	68919-39-1	Not Listed
Natural gas condensates (petroleum)	64741-47-5	Not Listed
Nonane	111-84-2	Not Listed
Octane	111-65-9	Not Listed
Pentane	109-66-0	Not Listed
Petroleum	8002-05-9	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	1000 lb RQ
Xylene	1330-20-7	100 lb RQ

U.S.—CWA (CLEAN WATER ACT)—RECOMMENDED WATER QUALITY CRITERIA—CCC FOR FRESHWATER LIFE

COMPONENT	CAS #	AMOUNT
Hydrogen Sulfide	7783-06-4	2.0 µg/L CCC

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U.S.—CWA (CLEAN WATER ACT)—RECOMMENDED WATER QUALITY CRITERIA—CCC FOR SALTWATER LIFE

COMPONENT	CAS #	AMOUNT
HydrogenSulfide	7783-06-4	2.0 µg/L CCC

U.S.—CWA (CLEAN WATER ACT)— HAZARDOUS SUBSTANCES

COMPONENT	CAS #	LISTED
1,2,4-Trimethylbenzene	95-63-6	Not Listed
2-Methylbutane (In Liquid form)	78-78-4	Not Listed
Benzene	71-43-2	X
Butane	106-97-8	Not Listed
Cyclohexane	110-82-7	X
Cyclopentane	287-92-3	Not Listed
Decane	124-18-5	Not Listed
Ethane	74-84-0	Not Listed
Ethylbenzene	100-41-4	X
Heptane	142-82-5	Not Listed
Hexane	110-54-3	Not Listed
Hydrogen Sulfide	7783-06-4	X
Isobutane	75-28-5	Not Listed
Methylcyclohexane	108-87-2	Not Listed
Methylcyclopentane	96-37-7	Not Listed
Natural Gas Condensate	68919-39-1	Not Listed
Natural gas condensates (petroleum)	64741-47-5	Not Listed
Nonane	111-84-2	Not Listed
Octane	111-65-9	Not Listed
Pentane	109-66-0	Not Listed
Petroleum	8002-05-9	Not Listed

Propane	74-98-6	Not Listed
Toluene	108-88-3	X
Xylene	1330-20-7	X

X= The component is listed

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U.S.—CWA (CLEAN WATER ACT)—PRIORITY POLLUTANTS

COMPONENT	CAS #	LISTED
1,2,4-Trimethylbenzene	95-63-6	Not Listed
2-Methylbutane (In Liquid form)	78-78-4	Not Listed
Benzene	71-43-2	X
Butane	106-97-8	Not Listed
Cyclohexane	110-82-7	Not Listed
Cyclopentane	287-92-3	Not Listed
Decane	124-18-5	Not Listed
Ethane	74-84-0	Not Listed
Ethylbenzene	100-41-4	X
Heptane	142-82-5	Not Listed
Hexane	110-54-3	Not Listed
Hydrogen Sulfide	7783-06-4	Not Listed
Isobutane	75-28-5	Not Listed
Methylcyclohexane	108-87-2	Not Listed
Methylcyclopentane	96-37-7	Not Listed
Natural Gas Condensate	68919-39-1	Not Listed
Natural gas condensates (petroleum)	64741-47-5	Not Listed
Nonane	111-84-2	Not Listed
Octane	111-65-9	Not Listed
Pentane	109-66-0	Not Listed
Petroleum	8002-05-9	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	X
Xylene	1330-20-7	Not Listed

X= The component is listed

CANADA-WHMIS—CLASSIFICATIONS OF SUBSTANCES

COMPONENT	CAS #	CLASSIFICATION
1,2,4-Trimethylbenzene	95-63-6	B3
2-Methylbutane (In Liquid form)	78-78-4	B2
Benzene	71-43-2	B2, D2A, D2B
Butane	106-97-8	A, B1
Cyclohexane	110-82-7	B2, D2B
Cyclopentane	287-92-3	B2
Decane	124-18-5	B3, D2B
Ethane	74-84-0	A, B1
Ethylbenzene	100-41-4	B2, D2A, D2B
Heptane	142-82-5	B2, D2B
Hexane	110-54-3	B2, D2A, D2B
Hydrogen Sulfide	7783-06-4	A, B1, D1A, D2B
Isobutane	75-28-5	A, B1 (listed under Methyl-2 propane)
Methylcyclohexane	108-87-2	B2
Methylcyclopentane	96-37-7	Not Listed
Natural Gas Condensate	68919-39-1	Not Listed
Natural gas condensates (petroleum)	64741-47-5	Not Listed
Nonane	111-84-2	B2, D2B
Octane	111-65-9	B2, D2B [redacted]
Pentane	109-66-0	B2
Petroleum	8002-05-9	B2
Propane	74-98-6	A, B1
Toluene	108-88-3	B2, D2A, D2B
Xylene	1330-20-7	B2, D2A, D2B

X= The component is listed

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CANADA—COUNCIL OF MINISTERS OF THE ENVIRONMENT—WATER QUALITY GUIDELINES FOR FRESHWATER AQUATIC LIFE

COMPONENT	CAS #	AMOUNT
Ethylbenzene	100-41-4	90 µg/L
Toluene	108-88-3	2.0 µg/L
Benzene	71-43-2	370 µg/L

CANADA—COUNCIL OF MINISTERS OF THE ENVIRONMENT—WATER QUALITY GUIDELINES FOR MARINE AQUATIC LIFE

COMPONENT	CAS #	AMOUNT
Ethylbenzene	100-41-4	25 µg/L
Toluene	108-88-3	215 µg/L
Benzene	71-43-2	110 µg/L

CANADA—ENVIRONMENTAL EMERGENCIES

COMPONENT	CAS #	LISTED
1,2,4-Trimethylbenzene	95-63-6	Not Listed
2-Methylbutane (In Liquid form)	78-78-4	X
Benzene	71-43-2	X
Butane	106-97-8	X
Cyclohexane	110-82-7	X
Cyclopentane	287-92-3	Not Listed
Decane	124-18-5	Not Listed
Ethane	74-84-0	X
Ethylbenzene	100-41-4	X
Heptane	142-82-5	Not Listed
Hexane	110-54-3	Not Listed
Hydrogen Sulfide	7783-06-4	X
Isobutane	75-28-5	X
Methylcyclohexane	108-87-2	Not Listed
Methylcyclopentane	96-37-7	Not Listed
Natural Gas Condensate	68919-39-1	Not Listed
Natural gas condensates (petroleum)	64741-47-5	Not Listed
Nonane	111-84-2	Not Listed
Octane	111-65-9	Not Listed
Pentane	109-66-0	X

Petroleum	8002-05-9	Not Listed
Propane	74-98-6	X
Toluene	108-88-3	X
Xylene	1330-20-7	X

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X= The component is listed

Section 16: Other Information

NFPA

Health Hazard: 2	**Flammability:** 4	**Instability:** 0	**Physical and Chemical Hazards:** X

HMIS	**Health Hazard:** 2	**Flammability:** 4	**Instability:** 0	**Personal Protection:** X

ISSUING DATE 5/6/15

REVISION DATE 5/6/15

DISCLAIMER

- The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS). However, SDSs may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

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Annex 2 – Table of Contents Page

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2.0 Notifications Overview

Immediate actions are required at the onset of an emergency response to limit the extent of a release, minimize the potential hazard to human health and the environment, and implement an effective response. It is also important to act decisively to create a professional working atmosphere among Company personnel and stakeholders. This section is intended to provide guidance for determining the appropriate initial response and notification actions that should be carried out in the event of a release or other emergency incident.

This section outlines general guidelines on the procedures and sequence for making the various internal and external notifications following discovery of a pipeline release or other emergency incident.

The internal notification procedures are essentially the same for all emergency incidents although the external notifications will vary depending on the type of incident, type and quantity of material released, and the consequences (injuries, deaths and property damage).

Company personnel have the authority and obligation to terminate any operation in response to an abnormal, threatening or hazardous situation.

2.0.1 Emergency Notification / Activation

The chart on the following page is an overview of roles personnel or groups fill upon initial discovery, from reporting the emergency to activating Emergency Response Teams to manage an emergency.

The chart on the following page is an overview of roles personnel or groups fill upon initial discovery, reporting the emergency to activating Emergency Response Teams to manage an emergency.

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2.01 Emergency Notification/Activation - Northern Region Notification Chart

ENBRIDGE

Last Updated: 2017-10-05

Incident Observer

- Member of the Public calls the toll free number
- Industrial User or Local Police contacts Control Centre
- Enbridge Employee discovery
- Edmonton Control Centre 1-877-420-8800 Line 21 CCO 780-420-8881
- Internal Alarm is Sounded

Control Centre Operations

- Document incoming call from incident observer
- Contact Regional Management On-Call Person to dispatch company first responder
- Implement CCO notifications

Regional Management

During Regular Work Hours:

[redacted]

Alternates/Outside- Regular Work Hours:
See Region On-Call Schedule and Emergency Response Directory for on-call person.

Dispatch First Responder (nearest employee or on-call person)

Subsequent Notification (Call Police & Fire Dept. if required)

Notify Edmonton Senior Management

Gov't Notification

Transportation Safety Board	819-997-7887
NT Spill Line	867-920-8130
AER / ALBERTA ENVIRONMENT	800-222-6514

IF CONFIRMED ACTIVATE THE EMERGENCY RESPONSE PLAN

Edmonton Senior Management

Primary
[redacted]

Alternate
[redacted]

Crisis Management

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2.1 Emergency Responsibilities

All Personnel	
The most important thing is individual personal safety!	
✓	Always think before responding.
✓	Never rush into the scene of an incident.
✓	Always assess the situation first and know the hazards.
✓	Never perform any actions that may put your safety at risk.

Initial Response Checklist	
The first employee who responds to the scene of an emergency should take the following actions:	
✓	For emergencies reported or observed, contact the Control Center and Area Management
✓	Upon initial discovery, employees should notify local emergency services as needed. If anyone is seriously injured, or the emergency is beyond the Response Zone's abilities, dial 911 or local emergency responder immediately. Be sure to give your name, phone number, nature of emergency, exact location, and the number of injuries
✓	If safe, take prompt action to eliminate any dangers
✓	If necessary, evacuate everyone from the danger area to a safe location
✓	Contact a spill response contractor if product has been released or discharged
✓	Promptly decide whether or not the emergency situation can be readily brought under control and if immediate action can be taken. (Always use the correct PPE)
✓	If there is a spill, deploy necessary local equipment and absorbent material and begin mitigation procedures
✓	Direct the initial phase of control, containment, and response until a supervisor arrives
✓	Regional Management (or designee) notifies the following: • Initial Company response personnel • Response resources (if not already done) • Applicable regulatory agencies.

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2.2 Incident Reporting

Utilize the General Incident Report Form, in Section 4 - Forms of the ICP Core Plan, to log all pertinent information relative to the Northern Response Zone incident response. When filling out this form, try to complete as much information as possible. Additional incident reporting guidance is located in the General Compliance Reference Manual located on the Company website.

A list of emergency contact information detailing required internal notifications and external agency contacts is located in this section. The following summarizes who should be contacted in an emergency.

Detailed external incident reporting requirements are found in OMM Book 1 Incident Reporting.

2.2.1 Required Notifications

- The Enbridge Control Center
- Regional Management
- Regulatory Agencies.

2.2.2 Incident Management Team

The Region has designated personnel that will be activated based on the needs of the incident response to fill command and general staff roles in the Incident Command System.

2.2.3 External Agencies and Support Resources

After the initial situational assessment and regulatory reporting are completed, call external agencies for support. Refer to Emergency Contact List in this Annex.

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2.2.3a Incident Management Team List

ICS Position	Normal Job Title	Name	Office Number	Alt. Number
Command Staff				
Incident Commander (IC)	Director, Athabasca Region	[redacted]	[redacted]	[redacted]
Alternate IC	Mgr. North Operations			
Alternate IC	Mgr. Central Operations			
Alternate IC	Mgr. South Operations			
Liaison Officer (LNO)	ROW Agent			[redacted]
Alternate LNO	Community Engagement Advisor			
Alternate LNO	Compliance Coordinator	[redacted]	TBD	TBD
Public Information Officer (PIO)	See Crisis Communications On-Call List			
Alternate PIO	See Crisis Communications On-Call List			
Safety Officer (SOFR)	Sr. Safety Advisor	[redacted]	[redacted]	[redacted]
Alternate SOFR	Safety Advisor			
Alternate SOFR	Field Operator III			
Operations Section				
Operations Section Chief (OSC)	Supervisor North	[redacted]	[redacted]	[redacted]
Alternate OSC	Supervisor Maintenance	[redacted]		[redacted]
Alternate OSC	Supervisor Operations			
Alternate OSC	Supervisor Stonefell			
Alternate OSC	Field Operations Supervisor			
Staging Area Manager (STAM)	Mechanical Tech III			
Alternate STAM	Field Operator II	[redacted]		[redacted]
Alternate STAM	Field Operator II			
Planning Section				
Planning Section Chief (PSC)	Supervisor Eng & Tech Services	[redacted]	[redacted]	[redacted]
Alternate PSC	Operations Supervisor North	[redacted]		[redacted]
Alternate PSC	Senior Engineer			
Situation Unit Leader (SITL)	EIT II			
Alternate SITL	EIT II			
Alternate SITL	Sr. Technical Advisor			
Environmental Unit Leader (ENVL)	Sr Environment Advisor	[redacted]		[redacted]
Alternate ENVL	Supervisor Environment Regional Support	[redacted]		[redacted]
Alternate ENVL	Sr Environment Advisor	[redacted]		[redacted]

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ICS Position	Normal Job Title	Name	Office Number	Alt. Number
Planning Section				
Documentation Unit Leader (DOCL)	Records Management Analyst	[redacted]	[redacted]	[redacted]
Alternate DOCL	Administrative Assistant III	[redacted]	[redacted]	[redacted]
Alternate DOCL	Administrative Assistant III	[redacted]	[redacted]	[redacted]
Resource Unit Leader (RESL)	Corrosion Prevention Analyst II	[redacted]	[redacted]	[redacted]
Alternate RESL	Sr Technical Advisor	[redacted]	[redacted]	[redacted]
Alternate RESL	Team Lead Operations	[redacted]	[redacted]	[redacted]
Logistics Section				
Logistics Section Chief (LSC)	Team Lead Operations	[redacted]	[redacted]	[redacted]
Alternate LSC	Supervisor Operations	[redacted]	[redacted]	[redacted]
Alternate LSC	Team Lead Maintenance Services	[redacted]	[redacted]	[redacted]
Alternate LSC	Team Lead Operations	[redacted]	[redacted]	[redacted]
Finance Section				
Finance Section Chief (FSC)	Team Lead Business Support	[redacted]	[redacted]	[redacted]
Alternate FSC	Financial Ops Analyst	[redacted]	[redacted]	
Alternate FSC	Financial Ops Analyst	[redacted]	[redacted]	

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2.2.3b Response Units

CONTROL CENTER			
Northern Region		[redacted]	
	[redacted]	[redacted]	
ENBRIDGE MEDIA HOTLINE			
Canada		888-992-0997	
ENBRIDGE QUALIFIED INDIVIDUALS			
Job Title	**Name**	**Office #**	**Cell #**
Director, Athabasca and Northern Region Ops	[redacted]	[redacted]	[redacted]
Area Operations Supervisor	[redacted]	[redacted]	[redacted]
Northern Response Units (Manned/Unmanned)			
INTERNAL			
Northern Regions Response Units (Manned)			
Norman Wells Station	[redacted]	[redacted]	
Fort Simpson Operations & Maintenance Base	[redacted]	[redacted]	
Northern Regions Response Units (Not Manned)			
Wrigley Pump Station	[redacted]	[redacted]	
Mackenzie Pump Station	KP 585 [redacted]	[redacted]	
[redacted]			

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EXTERNAL

Area A

COOP Custodian

[redacted]

Equipment Location

[redacted]

Equipment Summary

Equipment Summary

- 20' Sea-can (haul with winch tractor/trailer)
- Drum Skimmer (c/w power pack)

COOP Custodian

[redacted]

Equipment Location

[redacted]

Equipment Summary

Skid Units (2) (Bed truck)

Directions

[redacted]

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EXTERNAL

Area C

Regional Custodian

[redacted]

Equipment Location

[redacted]

Equipment Summary

- OSCAR Trailer (Tractor truck)
- Barge (1 ton with 2 5/16" ball hitch and electric brakes)
- 40' Boom Cache Sea-can (haul with winch tractor/trailer)
- 16' Wildlife Trailer
- 1 Workboat (1/2 ton with 2" ball hitch)
- Drum Skimmer c/w powerpak

COOP Custodian

[redacted]

Equipment Location

[redacted]

Equipment Summary

- Skid Unit (Bed truck or Oilfield float trailer)
- Work Boats (2) 1/2 ton w/ 2" ball hitch

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2.2.3c Emergency Services

EMERGENCY SERVICES			
Town/Band/Village	**Fire**	**Hospital**	**Police/RCMP**
NORMAN WELLS			
Town. 867-587-3700 Land Corp. 867-587-2455	24 Hr. 867-587-2222	Monica Loomis Health Centre 24 Hr. 867-587-3675 867-587-6688	867-587-1111
TULITA			
Band. 867-588-3341 Hamlet. 867-588-4471	867-588-2222	867-588-4251	867-588-1111
WRIGLEY			
Band. 867-581-3321 24 Hr. 867-875-8443	867-581-2222	867-581-3441	867-581-1111
FORT SIMPSON			
Band. 867-695-3131 Village. 867-695-2253	867-695-2222	24 Hr. 867-695-3232 Admin. 867-695-7000	867-695-1111
TROUT LAKE			
Band. 867-206-2800	867-206-2222	867-206-2838	867-770-1111
JEAN-MARIE RIVER			
Band. 867-809-2000	867-809-2222	867-809-2900	Fort Simpson: 867-695-1111
ASSUMPTION			
Band. 780-321-3862	911 780-841-8380	780-821-9431	911 24 Hr. 780-321-3753
HIGH LEVEL			
Town. 780-926-2201	911 780-926-2033	Northwest Health Centre 780-926-3791	911 780-926-2226
RAINBOW LAKE			
Town. 780-956-3934	911 780-956-1937	911 Admin. 780-956-3646	911 24 Hr. 780-321-3753 Admin. 780-956-3230

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2.2.3d Government Agencies

FEDERAL AGENCIES	
CANADA	
Transportation Safety Board (TSB) Incident Line	24 Hr. 819-997-7887
E-mail address PipelineNotifications@tsb.gc.ca	Fax. 819-997-2239
National Energy Board (NEB) Incident Line	24 Hr. 403-807-9473
NEB Online Event Reporting System (OERS)	
(https://apps.neb-one.gc.ca/ers/home/index)	
In the event that OERS is unavailable, companies are directed to report events to the	
TSB Reporting Hotline	819-997-7887
CANUTEC	24 Hr. 613-996-6666
Environment Canada	24 Hr. 800-222-6514
Fisheries and Oceans Canada- Yellowknife	867-669-4900
Canadian Coast Guard Auxiliary - Yellowknife **Watch Leader Cell**	867-444-1073
PROVINCIAL AGENCIES	
ALBERTA	
Alberta Energy Regulator (AER)	800-222-6514*
High Level Field Centre merged into Grande Prairie Field Centre	780-538-5138
Wildfire Reporting	310-FIRE (3473)
Alberta Environment and Parks - Rainbow Lake	780-956-6006
* One call number for regulatory agency, Alberta Environment, spill reporting & sustainable resource development (lands, fish, forest, wildlife).	800-222-6514*
MacKenzie County office	780-927-3718 office
	888-511-6323 after hours
Alberta Emergency Management - Northwest Region (AEMA)	24 Hr. 866-618-2362
Emergency Management Field Officer	780-538-5295
Alberta Ministry of Transportation	780-926-7537 cell
High Level District Office	780-926-2241
Occupational Health & Safety Alberta Labour	866-415-8690
Workers' Compensation Board	866-922-9221

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PROVINCIAL AGENCIES	
NWT	
NWT Environment and Natural Resources	867-920-8130
24 hour Spill Response Line	
For Death or damage to non-migratory birds and other animals, the regulatory agencies are as follows:	
Sahtu Regional Office Norman Wells	867-587-3500
Wildlife Emergencies	867-587-2422
Tulita Office	867-588-3441
Dehcho Regional Office Fort Simpson	867-695-7450
Wildlife Emergencies	867-695-7433
Transportation of Dangerous Goods (Transport Canada Department of Renewable Resources Gov't NWT Yellowknife)	867-873-7654
Workers' Safety and Compensation Commission (WSCC)	867-920-3888
Chief Safety Officer (WSCC)	867-669-4418
Local Authorities	
Dehcho First Nations - Fort Simpson	867-695-2355
	24 Hr 866-995-3748
Deline First Nations (Deline)	867-589-3515
Dene Tha Public Works & Tribal Resources -(Assumption)	24 Hr 877-366-3842
	780-321-3775
Hamlet of Tulita	867-588-4471
Jean Marie River First Nations - (Jean Marie)	867-809-2000
Liidlii Kue First Nation - (Fort Simpson)	867-695-3131
Metis Nation Local 52 - (Fort Simpson)	867-695-2431
Pehdzeh Ki First Nations - (Wrigley)	867-581-3321
Town of High Level - (High Level Alberta)	780-926-2201

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PROVINCIAL AGENCIES	
	780-841-1229 cell
Town of Norman Wells - (Norman Wells)Water Plant	24 Hr: 867-587-6566
	867-587-3725
Town of Rainbow Lake - (Rainbow Lake)	780-956-3934
Trout Lake Dene Band - (Trout Lake)	867-206-2800
Tulita Dene Band - (Tulita)	867-588-3341
Village of Fort Simpson (Fort Simpson)	867-695-2253
	867-787-0260 cell
GNWT Municipal and Community Affairs (Norman Wells)	867-587-7100

2.2.3e Other Pipelines

OTHER PIPELINES	
OIL AND GAS	
Apache Canada Ltd.	888-829-3449
Imperial Oil	877-304-8725
ISH Energy Ltd.	403-262-2244
Plains Midstream Canada ULC	866-875-2554

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LEAD AGENCY ROLES

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
OROGO*	❑ OROGO was established to support the GNWT Regulator of oil and gas operations (Ministry of Industry, Tourism and Investment). ❑ If the incident results in a spill from OROGO regulated facilities the incident must be reported through the NWT-Nunavut Spill Line which then routes the information to OROGO. If the incident does not result in a spill (accidents and near misses are also reportable), the incident must be reported to OROGO through a dedicated 24/7 phone line (867-445-8551). ❑ The Regulator is responsible for: ❒ Responding to incidents and spills at regulated oil and gas facilities ❒ Preparing safety, environmental protection and contingency plans, including emergency response procedures	❑ Responds to incidents and spills at regulated oil and gas facilities ❑ Receives information pertaining to petroleum industry incidents ❑ Monitors the operator's compliance with its obligations under the Oil and Gas Drilling and Production Regulations ❑ Based on separate Memorandums of Understanding (MOUs) shares information with the Petroleum Resources Division of the GNWT Department of Industry, Tourism and Investment in Inuvik and Mackenzie Valley and the Water Board, the Workers' Safety and Compensation Commission, and the National Energy Board	❑ Follow Incident Response & Reporting Protocols ❑ As part of the "lessons-learned" process, recommend any mitigative actions that may reduce the event from re-occurring ❑ Establish processes to receive and address community concerns ❑ Consultation with EMO, review and update CEM
ENR*	❑ Maintains a 24 hour telephone contact where petroleum industry incidents can be reported (NWT Spill Reporting Line - 867-920-8130) ❑ Maintains the Wildlife Management Information System (WMIS) and protect the species and habitats represented ❑ Informs communities of potential fire dangers and continually develop Canadian Wildland Fire Protection Plans (CWPP) ❑ Maintains 24 hour emergency number to report a fire or smoke in the forest	❑ Coordinate GNWT response to hazardous goods spills, clean-up operations and disposal arrangements ❑ Provide damage assessment information within areas of departmental interest ❑ Provide technical personnel and advice to local authorities, GNWT officials and other agencies respecting environmental protection matters ❑ Provide damage assessments of the economic impact of emergencies ❑ Provide advice on disaster assistance and recovery options and the impact on business and industrial recovery ❑ Provide advice and technical expertise on dangerous goods management and response ❑ The Forest Management Division: ❒ Assists in the provision of and support to mobile/portable radio systems ❒ Assists in the procurement of radio communications equipment ❒ Monitors weather, forest and fire conditions, forecasts fire behaviour and conditions to guide preparedness arrangements, and manages NWT forest fire suppression operations, including representing the GNWT in the MARS Agreement (seasonal) ❒ Advises EMO and communities on forest fire conditions and behaviour, and recommending appropriate courses of action (seasonal)	❑ Compile and maintain environment related records and log ❑ Conduct forest impact assessment ❑ Request a review environmental impact assessment if necessary ❑ Carry out investigation, when required, having regard for the existing investigative protocols and procedures ❑ Monitor environmental recovery, when required ❑ Investigate non-compliance with the Environmental Protection Act, Forest Protection Act, Forest Management Act, Wildlife Act and Water Resources Agreements Act; the investigation may be coordinated with, or independent of, any other investigation in relation to the incident
GNWT*	❑ Providing assistance to Local Authorities when requested, or assuming operational control when the Local Authority's capacity or jurisdiction is exceeded ❑ Develop and maintain Regional Emergency Plans and the NWT Emergency Plan ❑ Implement plans and procedures for an integrated response to emergencies within any Region(s) affected, or through headquarters' control of inter-regional emergency operations ❑ Departments and agencies of GNWT are responsible for: ❑ Maintaining departmental emergency plans ❑ Responding directly to emergencies in which it has a designated lead agency responsibility ❑ Maintaining plans to ensure the continuity of vital business functions ❑ Providing resources or response as identified in Annex A ❑ Participating as a part of a coordinated GNWT response at a regional or territorial level in accordance with the provisions of this Plan	❑ Provide prompt and coordinated response to specific community requests for assistance ❑ Assume direction and control of emergency operations where a Local Authority does not exist, or when the event is a matter of GNWT jurisdiction ❑ Assume control of emergency operations when the Minister has declared a State of Emergency ❑ Communicate with federal points of contact to facilitate the provision of Government of Canada emergency assistance to the GNWT ❑ Coordinate GNWT assistance to federal emergency operations within National Parks, in federal Search and Rescue operations including MAJAID responses, and in other areas under federal jurisdiction ❑ Provide operational coordination of territorial emergency operations and GNWT departmental participation in the activation of the Joint Support Plan in a response to a major emergency	❑ Compile and maintain environment related records and log. ❑ The TEOC Coordinator will oversee the completion of event reports on each TERC activation. ❑ Report on departmental activities during emergency operations, and participate in de-briefings at the conclusion of each activation of TERC
***MACA / *EMO**	❑ Act as the territory coordinating agency in petroleum industry emergency responses. ❑ Provides overall coordination of territorial emergency preparedness and response, and is responsible for: ❒ Preparation and maintenance of the Northwest Territories Emergency Plan ❒ Coordination of the periodic testing of emergency procedures and arrangements as determined appropriate by TERC ❒ Coordination of GNWT response to emergencies under the processes established in the Northwest Territories Emergency Plan ❒ Processing of requests for the assistance of other provincial/territorial jurisdictions, the Canadian Forces and the Government of Canada (unless specific arrangements apply) ❒ Recommendations on disaster assistance programs and the sharing of costs for emergency management ❒ Collection, analysis and reporting of government emergency operating costs ❒ Assistance to departments and local authorities in the development and implementation of emergency plans ❒ Coordinating the design and delivery of emergency preparedness training to support TERC member agencies in developing their capacity to fulfil their emergency obligations	❑ Coordinate the response of Regional Emergency Response Committees ❑ Assistance to Local Authorities in responding to emergencies ❑ Liaise between local emergency authorities and the Territorial Emergency Response Committee ❑ Advise EMO of emergencies affecting a Region ❑ Establish, operation and administration of the Territorial EOC ❑ Support in fire-fighting, search and rescue, emergency first aid and triage ❑ Provide specialized on-scene personnel and emergency response teams as required	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator ❑ Under the NWT Emergency Plan, MACA is responsible for coordination and debriefing on emergency operations and the preparation of a final report on the response to major emergencies ❑ Assign response protocol designation to measure size of government response ❑ After any emergency in which the plan is implemented, MACA will meet with the community Emergency Management Committee for a debrief and plan re-assessment as quickly as possible; ideally this will occur within 15 days

*GNWT – Government of Northwest Territories *OROGO - Office of the Regulator of Oil and Gas Operations *ENR - NWT Environment of Natural Resources * MACA - Municipal and Community Affairs *EMO – NWT Emergency Measures Organization

August 2017

H2Safety Services Inc.

Northwest Territories

LEAD AGENCY ROLES

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
LOCAL AUTHORITY	❑ The elected councils of community governments are the Local Authority for the purposes of the *Civil Emergency Measures Act*, and as such are responsible for the development and implementation of emergency plans and procedures to reasonably protect the general public, and minimize property damage and loss during emergencies. ❑ In fulfilling its responsibilities the Local Authority shall: ❒ Prepare, approve and maintain emergency plans ❒ Control and direct emergency operations within areas under their jurisdiction ❒ Inform the Regional Superintendent of any local emergency and possible requirements for assistance ❒ Request assistance from the GNWT through the Regional Superintendent when the Local Authority's capacity or jurisdiction is exceeded, or may be exceeded ❒ Declare a State of Local Emergency under Section 14 of the Civil Emergency Measures Act when the situation warrants	❑ Establish contact with the industrial operator in order to: ❒ Obtain additional hazard information ❒ Determine where road blocks should be or are established, the direction of approach to the incident, and if there are any injuries ❒ Find out what response and public protection actions have been taken by the upstream operation ❒ Identify the location of the on-site Command Post (OSCP) and any Emergency Operations Centres (EOCs) ❑ Activate the MACP, when required the emergency public warning system to alert people of life threatening hazards as required ❑ Activation of the community EOC (MEOC) will be completed and staffed by the Emergency Management Committee, as required ❑ Initiate public protection measures, as necessary ❑ May dispatch a representative to the Territorial EOC (TEOC), when it is established, to coordinate the response, if requested ❑ If necessary, declare a local State of Emergency ❑ When possible, work with all other responders to establish a single Regional EOC (REOC) ❑ Liaise with other government officials as the situation dictates ❑ Establish a public information service, including the use of the news media to inform and instruct the public of the emergency and of any protective actions to be taken ❑ Coordinate agency resources and request mutual aid ❑ Coordinate news releases with the licensee, if required ❑ Inform the EMO and the public when the emergency is over ❑ Control and direct emergency operations within areas under their jurisdiction ❑ Inform Regional Superintendent of any local emergency and possible requirements for assistance ❑ Request assistance from the GNWT through the Regional Superintendent when the Local Authority's capacity or jurisdiction is exceeded, or may be exceeded	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator ❑ After any emergency in which the plan is implemented, the community Emergency Management Committee will meet with MACA for a debrief and plan re-assessment as quickly as possible; ideally this will occur within 15 days ❑ Participate in multi-agency debriefings
DOJ*	❑ The Department is responsible for: ❒ Management of requests for military assistance to the civilian law authorities ❒ Provision of coroner services ❒ Provision of legal advice and assistance to government emergency operations officials ❒ Protection and security of correctional institutions populations and evacuation if required ❑ And through the Royal Canadian Mounted Police: ❒ Reinforcement of local police services ❒ Assessment and reporting on the degree of public danger ❒ Coordination of public ground search and rescue (including inland waters) ❒ Identification and handling of dead ❒ Establishing a temporary morgue ❒ Traffic and crowd control ❒ Providing security of vital points	RCMP ❑ Respond to and assess emergency incident to the scope of their abilities ❑ RCMP would become involved if there are fatalities, as they are required to participate in the investigations. This could be through the medical examiner ❑ 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 ❑ Ensure orderly gathering evacuees at the point of departure ❑ Ensure security of personal effects, property and pets after evacuation ❑ Prevent congestion of persons and vehicles	❑ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator ❑ Participate in multi-agency debriefings
HSS*	❑ The Department assists local authorities in meeting the needs of disaster victims by providing, issuing or arranging for the following services: ❒ Personal counselling services ❒ Acute care and mental health contingency planning and services ❒ Critical incident stress debriefing for victims and emergency response personnel ❒ Emergency public health services ❒ Environmental health services and advice ❒ Maintenance of a list of hospitalized casualties ❒ Liaison with provinces/territories to determine destinations for casualties ❒ Health related information and advice on public protection measures and technical advice to local authorities and other departments ❒ The acquisition of emergency medical stores and supplies ❒ Move patients to safe areas and emergency evacuation of casualties ❒ Provision of technical advice and guidance at emergency sites regarding occupational health and safety of response persons	❑ Provide representation at the off-site REOC or at the TEOC when established, if requested and if available ❑ Provide, issue or arrange for: ❒ Emergency public health services ❒ Environmental health services and advice ❒ Maintenance of a list of hospitalized casualties ❒ Liaison with provinces/territories to determine destinations for casualties ❒ Health related information, such as information about toxic chemicals and by-products ❒ Guidance on public protection measures, such as evacuation and sheltering ❒ Guidance on rescinding a declaration of public evacuation and on allowing re-occupancy ❒ Movement of patients to safe areas and emergency evacuation of casualties ❒ Technical advice and guidance at emergency sites regarding the occupational health and safety of response personnel ❑ Investigate health complaints from the public ❑ Ensure local hospitals are alerted when there is potential for an impact from a release ❑ Coordinate the provision of medical services and supplies during an emergency	❑ Compile and maintain health related records and logs ❑ Participate, where possible, in event debriefings ❑ Complete incident related reports ❑ Provide guidance on assessing and mitigating public health risks due to any residual environmental contamination following an event ❑ Provide or arrange for critical incident stress debriefing for victims and emergency response personnel

* DOJ—Department of Justice

* HSS - NWT Health and Social Services

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
WSCC *	❒ Responsible for provision of advice and technical expertise on underground rescue and workers' safety	❒ Monitor the health and safety aspects of applicable occupations within the hazard area to ensure that the necessary precautions are taken to protect the workers' safety ❒ Promote safe workplaces through education and enforcement ❒ Maintain a balance in providing benefits to injured workers while keeping assessment costs to employers as low as possible	❒ Compile and maintain safety related records and log ❒ Monitor lease holder / contractor's plan to determine if site is safe for recovery workers ❒ Investigate non-compliance with the Workers' Compensation Act and the Safety Act; the investigation may be coordinated with, or independent of, any other investigation in relation to the incident ❒ Ensure compensation and pensions are awarded to injured workers or their dependents, and are paid in accordance with entitlement
DOT *	❒ The mandate of the Department of Transportation is to plan, design, construct or reconstruct, acquire, operate and maintain public transportation infrastructure in the NWT, including community airports, docks and the highway system, and to regulate and license individuals and vehicles operating in the territory.	❒ Provide air, land and water access to emergency areas, where possible and where necessary ❒ Provide transportation of equipment and operators ❒ Provide mobile radio systems when required ❒ Assess damage of public sector transportation facilities ❒ Provide access to airport facilities and services ❒ Authority for highway and road closures ❒ Transport emergency materials and supplies ❒ Transport persons displaced by an emergency out of the community	❒ Ensure that all requests and reports are completed
PWS*	❒ The Department of Infrastructure is responsible for territory-wide government programs such as: ❒ Planning, design, construction, acquisition, operation and maintenance of public buildings and transportation infrastructure and systems ❒ Environmental assessment and remediation of public infrastructure ❒ Property management ❒ Procurement shared services ❒ Information management and technology ❒ Disposal of surplus property and goods ❒ Motor vehicle and mechanical / electrical regulatory services	❒ Provision of specialized equipment and personnel ❒ Professional assistance in undertaking reconstruction ❒ Damage assessment in the public sector ❒ Assistance in the acquisition of special emergency accommodation for GNWT emergency workers ❒ Technical advice regarding electrical installations, pressure vessels and other materials and installations which may affect the response to an emergency ❒ Provision of emergency postal / courier services	❒ Assess damage to public facilities and recorded information ❒ Give professional help with reconstruction

SUPPORTING AGENCY ROLES

*DOT – NWT Department of Transportation *PWS – Public Works and Services (Dept of Infrastructure) *WSCC – Workers' Safety and Compensation Commission

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LEAD AGENCY ROLES

	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
COMMON TASKS	❑ All departments/agencies should participate in training and exercises for this plan and the Energy Resources Industry Emergency Support Plan (ERIESP). ❑ This plan will be reviewed as required. ❑ A join multi-department/agency exercise will be held as required.	❒ The AER may activate the ERIESP based on the following criteria: ❒ Level 2 or 3 emergencies (as defined by the AER) ❒ Any level of emergency: ❒ requires coordination of multi-agency response; ❒ requires coordination of information and communication between departments/agencies and/or has significant provincial/national media interest. ❒ Elevations of the POC will be escalated by AEMA. Once the elevations level of the POC has been escalated, provincial-level emergency control will be coordinated by AEMA under the leadership of the lead agency. ❒ The AER will develop emergency objectives to guide the GoA response and support to duty holders and local authorities. AEMA will assist the AER by providing leadership and strategic policy direction for the GoA as per the *Government Emergency Management Regulation* (AR 248/2007). ❒ GoA emergency management assistance will be provided to the local authority as requested and as is required by the local authority.	❒ Complete a Post Incident Assessment (PIA) based on the scope of their involvement and the outcome. ❒ Integrate PIA into internal response processes. ❒ All departments/agencies will participate in a joint PIA to be coordinated by AER. Participation from each department/agency will be determined by the response to the emergency. ❒ Reports required by other regulatory authorities must be completed and delivered to the appropriate regulatory body within the time lines they prescribe.
***Alberta Energy Regulator (AER)**	❑ Conform and act as lead Government of Alberta (GoA) organization in in energy resources industry emergency preparedness and response. ❑ Set requirements for planning for, and responding to energy resources industry emergencies. ❑ Participate in exercises of this plan. ❑ Review and recommend changes to this plan. ❑ Maintain 24/7 telephone contact where energy resources industry emergencies can be reported. ❑ Maintain 24/7 emergency contact numbers where resources can be accessed to carry out a response to this plan. ❑ Make this plan available to stakeholders. ❑ Communicate changes to the plan with stakeholders ❑ Maintain emergency response resources. ❑ Act as Subject Matter Expert (SME).	❒ Receive notification of energy resources industry emergencies. ❒ Determine the emergency level of an emergency through consultation with the duty holder. ❒ Dispatch AER representative to the site of the emergency, as required. ❒ Confirm that local resources have been notified as appropriate. ❒ Monitoring discharges and ensuring appropriate mitigation and response actions are taken to reduce the impact of liquid releases for land based spills and to ensure watercourses are protected. ❒ Confirm, plan and/or implement public safety actions taken to ensure the safety of the public and the environment, including issuing Fire Hazard Orders or requesting NOTAMs. ❒ As lead agency, provide coordination for departments/agencies and duty holder on site. ❒ Request a local authority liaison officer to be present at the REOC, if necessary. ❒ Activate the Energy Resources Industry Emergency Support Plan. ❒ Advise AEMA to escalate POC activation (if required). ❒ Identify and request initial provincial resources to support the emergency response, to be coordinated at the regional level if necessary through a local or regional EOC. ❒ Initiate consolidated Situation Reports through AEMA. ❒ Provide Situation Reports to AEMA if requested. ❒ Send an AER representative to the emergency location and/or the incident command post. ❒ Establish an EOC at the local AER Field Centre until the duty holder or local authority establishes a REOC. AER ECC will be expanded if a REOC is not established. ❒ Dispatch an AER representative to the REOC when it opens. ❒ Request the deployment of other provincial GoA department/agency representative to be present at the REOC, or the local AER Field Centre ECC. ❒ Provide timely situation reports, through AEMA, to other GoA departments/agencies activated by this plan. ❒ Notify all participants when the emergency has concluded and there is no longer any hazard to the public.	❒ Conduct the PIA related to the response, as described by the ERIESP. ❒ As part of the PIA, recommend any mitigation actions that may improve the coordination of the GoA response, as described by the ERIESP. ❒ Establish processes to receive and address community concerns. ❒ Review and update the ERIESP, in consultation with AEMA. ❒ Communicate any changes to the ERIESP to applicable stakeholders.
***AEMA**	❑ Act as the provincial coordinating agency in energy resources industry emergency responses as per the *Emergency Management Act*. ❑ Maintain list of 24 hour emergency contact numbers. ❑ Maintain 24 hour duty manager system. ❑ Assist in the planning and coordination of exercises with the AER. ❑ Maintain emergency response resources. ❑ Act as an SME.	❒ Confirm AER has been notified. ❒ Obtain a situation report from the AER, AEP, local authority, etc. ❒ Confirm the level of emergency. ❒ Elevate the POC as required. ❒ Notify the appropriate provincial officials as per standard operating procedures. ❒ Release consolidated Situation Reports in accordance with section 3.4.4. ❒ Coordinate the Government of Alberta response including requests for provincial/federal resources. ❒ Provide ongoing situation reports or briefing notes to appropriate provincial officials in accordance with the AEP or as requested. ❒ Notify partners and stakeholders when the event is over.	❒ Conduct the PIA. ❒ Complete documentation or reporting in relation to the activation of the ERIESP and the emergency for all GoA-wide PIAs.
LOCAL AUTHORITY	❑ Work with the operator to effectively prepare for a petroleum industry incident. Provide input to the industrial operator's site-specific plan to ensure it is compatible with the Municipal Emergency Plan (MEP), where feasible. ❑ Participate in industrial operators' preparatory training and exercises where possible. ❑ Train personnel to carry out functions as assigned by MEP or procedures. ❑ Maintain 24 hour emergency contact numbers. ❑ Meaningful planning (including confirmation and coordination of roles and responsibilities) between the local authority and the licensee/operator has taken place. ❑ Details on municipal emergency response capacity and planning are found in the applicable municipal emergency plan.	❑ Receive notification and work with the licensee/operator. ❑ In a petroleum industry incident, determine if the incident can be managed and the level of support that would be needed if required from AER and AEMA. If the local authority, licensees or operators are unable to manage the response, the AER with assistance from AEMA will manage the response. ❑ Send a local authority liaison officer to be present at the AER regional EOC if necessary. ❑ If AEMA is providing support provide regular situation reports. ❑ Respond to and assess the emergency incident. ❑ Establish contact with the industrial operator in order to: ❒ Obtain additional hazard information. ❒ Determine where road blocks should be or are established. ❒ Determine the direction of approach to the incident. ❒ Determine if there are any injuries. ❒ Find out what response and public protection actions have been taken. ❒ Identify the location of the On-site Command Post (OSCP) and any Emergency Operations Centres (EOCs). ❑ Activate the MEP, when required. ❑ Manage the Local Authority's emergency response. ❑ Activate the emergency public warning system to alert people to life threatening hazards, as required. ❑ Activate the Municipal EOC (MEOC), as required. ❑ Initiate public protection measures, as necessary. ❑ May dispatch a representative to the Provincial Operations Centre (POC), when it is established, to coordinate the response, if requested. ❑ If necessary, declare a local State of Emergency. ❑ If the hazard area extends beyond the Emergency Planning Zone (EPZ), the county will coordinate evacuation of the public as well as reception centre establishment and maintenance with the industrial operator. ❑ When possible, work with all other responders to establish a single Regional EOC (REOC). ❑ Establish a public information service, including the use of the news media to inform and instruct the public of the emergency and of any protective actions to be taken. ❑ Coordinate news releases with the licensee, if required. ❑ Inform AEMA and the public when the emergency is over.	❒ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator. ❒ Participate in multi-agency debriefings.
ALBERTA HEALTH SERVICES (AHS)	Alberta Health Services (AHS) - Environmental Public Health (EPH) roles and responsibilities in public health emergency preparedness and response to oil and gas industry are outlines below. The provision of services during an emergency is contingent upon assessment of legislative responsibilities. Impact to services, and business continuity. Environmental Public Health will endeavor to: ❑ Participate with the licensee in the development of their Emergency Response Plans as it relates to the Environmental Public Health Program's role and responsibility. ❑ Provide the AHS Zone Single-Point-of-Contact (SPOC) emergency phone number to enable the Licensee to notify and alert the Zone of an emergency. From the initial notification or alert, AHS emergency response will fan out to and coordinate with other AHS programs and facilities as necessary. 911 EMS services remain independent of the Zone SPOC notification/alert process. ❑ Participate with stakeholders in preparedness training and exercises associated with a Licensee's simulated activation of an Emergency Response Plan in which Environmental Public Health has a role and responsibility. ❑ Participate in public information sessions during the Licensee's Emergency Response Plan development process when appropriate and as resources allow.	❑ Provide guidance to stakeholders and local municipal authorities in identifying sites suitable for establishing and operating an evacuation centre and/or reception centre, including operational requirements. ❑ Provide guidance to stakeholders on substances that may affect public health in consultation with the Zone Medical Officer of Health (MOH), including Alberta Health and Wellness acute exposure health effects for hydrogen sulphide and sulphur dioxide information. ❑ Conduct assessments, inspections and give regulatory direction, when appropriate, to ensure the requirements of provincial legislation and EPH program areas of responsibilities for public health protection and disease prevention are maintained. ❑ Notify the Zone Medical Officer of Health of any incident affecting or potentially affecting other AHS programs or facilities. The Zone MOH will notify and coordinate emergency response in other program areas and facilities as necessary. ❑ Establish EPH emergency management operations, when appropriate, to support regional efforts and liaise with the Government Emergency Operations Centre, Municipal Emergency Operations Centre and/or Industry Emergency Operations Centre, if needed. ❑ Assist the Zone Medical Officer of Health, local municipal authority, and Public Information/Communication officers in the development, issuance, and rescinding of public health, public evacuation, and shelter-in-place advisories. ❑ Provide guidance to stakeholders on matters relating to evacuation of the public and/or public facilities, and the re-occupancy of those evacuated areas or facilities. ❒ Record and respond to health complaints or concerns from the public during and following and incident.	❒ Record and respond to health complaints or concerns from the public during and following and incident. ❒ Provide the local health aspects into the PIA. ❒ Participate in stakeholder debriefings as necessary.

Note: The roles for the local authority(s) and regional health authority(s) are not outlined in the Energy Resources Industry Emergency Support Plan (ERIESP) Plan and will be coordinated during the public consultation program.

*AER - Alberta Energy Regulator *AEMA - Alberta Emergency Management Agency *AHS - Alberta Health Services

H2Safety Services Inc.

Alberta

LEAD AGENCY ROLES

AB EMERGENCY SERVICES

BEFORE THE INCIDENT

The first level of emergency response is provided by fire and/or police services and may involve the activation of the Emergency Operations Centre (EOC). Other first responders, such as the RCMP and Emergency Medical Services, or EMS, have a provincial mandate but with a local presence through detachments or stations. These agencies are usually accessed through 9-1-1 and have internal dispatch arrangements.

- ❒ First responders work at the site level of an event and include police, fire and ambulance. Activities of first responders include medical response, firefighting and managing crowds or evacuation zones.
- ❒ When a local authority EOC is activated, police and fire first responder agencies provide situational awareness to the local authority and submit requests for support to the local authority EOC.
- ❒ First response services provided by a fire department are determined by the local authority responsible, and may include hazardous material incident response, road rescue, and medical rescue
- ❒ Emergency Medical Services, or EMS, operates under the authority of the Alberta Health Services. No matter where an emergency happens in Alberta, AHS EMS can transport patients by either a ground ambulance or air ambulance – fixed wing airplane or helicopter.
- ❒ AHS EMS staff actively participates in emergency planning, mock emergency exercises and other joint training initiatives to ensure emergency preparedness and response resources are identified and deployed quickly and effectively when they are needed most
- ❒ Maintain readiness status for emergency notification
- ❒ Participate in industrial operators' exercises where possible
- ❒ Maintain 24 hour emergency contact numbers

DURING THE INCIDENT

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 on-site Regional Emergency Operations Centre when established to coordinate the response.
- ❒ Coordinate with the industrial operator both the establishment and the administration of reception centres for evacuees.
- ❒ Maintain a 24 hour emergency contact number where resources can be accessed for a response related to Emergency Response Plans.

Fire

- ❒ Respond to and assess emergency incident to the scope of their abilities.
- ❒ Establish a unified OSCP / ICP (On-site Command Post / Incident Command Post).
- ❒ Communicate to MEOC and provide site reps as required.
- ❒ Assist with fire protection where trained personnel are available.
- ❒ Provide emergency medical assistance, as required.
- ❑ Coordinate news releases with the licensee, if required.

EMS

- ❒ Respond to and assess emergency incident to the scope of their abilities.
- ❒ The Alberta Health Services provides and coordinates ambulance services within Alberta, including triage, treatment, transportation and care of casualties
- ❒ Provide emergency medical assistance, as required. Emergency Medical Technicians (EMT) or Emergency Medical Responders (EMR) provide basic patient assessment and treatment including obtaining vital signs, administering oxygen and splinting extremities.
- ❒ ALS ambulances have at least one paramedic with expanded training, scope of practice, and can provide advanced treatment in airway management and medication administration.

AFTER THE INCIDENT

- ❒ Complete a "lessons learned" process based on the scope of involvement and provide any feedback to the industrial operator.
- ❒ Participate in multi-agency debriefings.

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Note: The roles for the local authority(s) and regional health authority(s) are not outlined in the Petroleum Industry Incident Support Plan and will be coordinated during the public consultation program.

*AER - Alberta Energy Regulator (Oil & Gas / *AEP - Alberta Environment and Parks) *AEMA - Alberta Emergency Management Agency *EMERGENCY SERVICES – as managed / operated by the Local Authority / Health Authority

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SUPPORTING AGENCY ROLES

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
COMMON TASKS	❑ All departments/agencies should participate in training and exercises for this plan and the Energy Resources Industry Emergency Support Plan (ERIESP). ❑ This plan will be reviewed as required. ❑ A join multi-department/agency exercise will be held as required.	❑ The AER may activate the ERIESP based on the following criteria: ❐ Level 2 or 3 emergencies (as defined by the AER) ❐ Any level of emergency: ❐ requires coordination of multi-agency response; ❐ requires coordination of information and communication between departments/agencies and/or has significant provincial/national media interest. ❑ Elevations of the POC will be escalated by AEMA. Once the elevations level of the POC has been escalated, provincial-level emergency control will be coordinated by AEMA under the leadership of the lead agency. ❑ The AER will develop emergency objectives to guide the GoA response and support to duty holders and local authorities. AEMA will assist the AER by providing leadership and strategic policy direction for the GoA as per the *Government Emergency Management Regulation AR 248/2007*. ❑ GoA emergency management assistance will be provided to the local authority as requested and as long as is required by the local authority.	❑ Complete a Post Incident Assessment (PIA) based on the scope of their involvement and the outcome. ❑ Integrate PIA into internal response processes. ❑ All departments/agencies will participate in a joint PIA to be coordinated by AER. Participation from each department/agency will be determined by the response to the emergency. ❑ Reports required by other regulatory authorities must be completed and delivered to the appropriate regulatory body within the time lines they prescribe.
*Human Services OH&S	❑ Maintain 24 hour emergency contact numbers where resources can be accessed to carry out a response related to this plan. ❑ Maintain the capacity to send an OH&S officer to the POC on a 24/7 basis.	❑ Monitor the health and safety aspects of applicable occupations within the hazard area to ensure that the necessary precautions are taken to protect the workers' safety.	❑ Compile and maintain health and safety related records and log. ❑ Monitor lease holder / contractor's plan to determine if site is safe for recovery workers. ❑ Investigate non-compliance with the Occupational Health and Safety Act. The investigation may be coordinated with, or independent of, any other investigation in relation to the incident
*AAF	❑ Act as subject matter expert (SME) relating to agriculture and livestock impacts. ❑ Act as the liaison between farming/ranching community and the Government of Alberta (GoA). ❑ Act as SME.	❑ Act as SME relating to agriculture and livestock impacts. ❑ Act as the liaison between farming/ranching community and GoA during energy resources industry emergencies. ❑ Provide information relating to agricultural and livestock impacts to the GoA during energy resources industry emergencies.	❑ Provide a summary of agriculture and livestock impacts during the PIA process. (if applicable) ❑ Conduct agriculture and livestock impact assessments. ❑ Implement response activities as required.
*AH	❑ Act as the SME on health effects for energy resources industry hazards. ❑ Provides technical expertise on potential health impacts to the public, linkages to health resources and considers provincial health system impacts. ❑ Act as the SME on health effects for petroleum industry hazards.	❑ Verify that AHS (Alberta Health Services) and/or FNIH (First Nations & Inuit Health) have been notified of the emergency. ❑ AH will asses the potential for and implications of human health issues and coordinate the provision of information and support to and from AHS. ❑ Provide health and medical technical expertise as requested and as appropriate. ❑ Act as SME on health effects for petroleum industry hazards, providing technical expertise on health impacts to the public, linkages to health resources and provincial health impacts. ❑ AH in collaboration with AHS will monitor and assess the impact of health system and collaboration with AHS and other GoA ministries to communicate knowledge of situation to stakeholders (federal and provincial) ❑ AH will provide scientific advice and recommendations on human health risk assessments when addressing site specific clean-up, site specific de-commissioning and process impact assessments. ❑ During a petroleum event, AH will primarily communicate to AHS. AHS will provide safety messaging to the public, and will relay situational information to the local health system. ❑ Provide support to AHS as required.	❑ Provide a summary of the health impacts during the PIA process. (if applicable)
*AT	❑ Maintain a 24/7 call centre (CIC) to receive emergency calls related to the transportation and handling of dangerous goods as well as environmental spills/releases/incidents, the AER emergency notifications. ❑ Act as SME for dangerous goods incidents.	❑ Handle inter-departmental communication as needed during energy resources industry emergencies. ❑ Maintain ability to process calls for new emergencies. ❑ Provide information on the impacts to transportation routes. ❑ Provide response support if dangerous goods are released.	❑ Provide a summary of transportation impacts during the PIA process. (if applicable) ❑ Ensure that all requests and reports are completed in E-team.
*PAB	❑ Maintain a team of trained Public Affairs personnel. ❑ Activate crisis communications plan and crisis communications response.	❑ Confirm distribution of AER messaging. Provide support as required.	❑ Participate in all PIAs related to the ERIESP. ❑ Coordinate key messaging with the AER.
*JSG	❑ Maintain the list of Critical Infrastructure and key assets in the Province of Alberta. ❑ Maintain and regularly test the Emergency Notification System. ❑ Maintain awareness of threats, vulnerabilities, and risks related to human induced intentional hazards.	❑ Provide intelligence and threat risk assessments when appropriate and when requested, in relation to critical infrastructure and key assets. ❑ Communicate with owners and operators of critical infrastructure and key assets, through normal communication channels, or if necessary through the Emergency Notification System maintained by ASSIST.	❑ Participate in all PIAs related to the ERIESP. ❑ Communicate with owners and operators of critical infrastructure and key assets, through normal communication channels, or if necessary through the Emergency Notification System maintained by ASSIST.
*ABSA	❑ Review, accept and register pressure equipment designs and construction procedures that relate to pressure equipment. ❑ Issue certificate of inspection permits for pressure equipment before the equipment is placed into service. ❑ Ensure that regular inspections of in-service pressure equipment are conducted. ❑ Keep records for pressure equipment that has been registered for use, or manufactured, in Alberta. ❑ Examine, certify and register Pressure Welders and Welding Examiners, Power Engineers, and Pressure Equipment Inspectors. ❑ Authorize and monitor, through quality management systems, organizations that have been permitted to conduct some of the activities subject to the regulations. ❑ Conduct safety education and training.	❑ Receive notification of an incident. ❑ As required under the *Pressure Equipment Safety Regulation* Section 35, the accident scene must not be disturbed (except when it is absolutely necessary to prevent death or injury, or to prevent further property damage) unless approval to do so has been given by an ABSA Safety Codes Officer.	❑ Investigate accidents or unsafe conditions that involve pressure equipment. May: ❑ close all or part of the accident site for 48 hours (or longer if authorized by a Justice) ❑ prohibit any person from entering the site for safety reasons or to preserve evidence ❑ be accompanied by any person for assistance ❑ inspect and photograph any thing ❑ require any person to make full disclosure ❑ require closure or disconnection of any thing ❑ require to be performed any tests or evaluations ❑ remove evidence ❑ require production of documents

*Human Services - Occupational Health & Safety *AAF - Alberta Agriculture and Forestry *AH – Alberta Health *AT – Alberta Transportation *PAB – Public Affairs Bureau *JSG - Alberta Justice and Solicitor General *ABSA - Alberta Boilers Safety Authority

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SUPPORTING AGENCY ROLES

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
***AEP / FORESTRY**	❑ Maintain 24 hour emergency contact numbers and duty officer where resources can be accessed for a response related to this plan. ❑ Maintain emergency response resources. ❑ Maintain a specialty air monitoring team and equipment used to oversee and verify air monitoring during incident response. ❑ Act as SME. ❑ Prepare to act as lead agency when appropriate.	AEP ❑ Ensure that non-energy industry resources environmental impacts are mitigated. ❑ Provide expertise to mitigate the impacts of non-energy resources industry liquid releases on land and into watercourses. ❑ Provide technical assistance related to emergency drinking water supply engineering. ❑ Notify Fish and Wildlife staff in the area of the emergency. ❑ Provide oversight role in ensuring air monitoring needs and activities associated with public safety around the event site are adequately addressed by the licensee / operator. ❑ Ensure air monitoring log is being maintained. ❑ Participate in the evaluation of the incident and the potential area at risk from product releases. Forestry ❑ Notify forestry staff in the area of the emergency. ❑ Notify duty holder if energy resources industry infrastructure is threatened by wildfire. ❑ Can light wildfires started as the result of the energy resources industry product release.	AEP ❐ Compile and maintain environment/emergency related records ❐ Monitor environmental recovery, when required. Forestry ❐ Conduct forest impact assessment. (if applicable)
***WCB**	The Workers' Compensation Board is a statutory corporation created by government under the Workers' Compensation Act to administer a system of workplace insurance for the workers and employers of the province of Alberta. ❐ WCB has the overall responsibility for the administration of the workers' compensation system in Alberta. ❐ Be a neutral and autonomous administrator of the worker's compensation system. ❐ Strive to balance the interests of workers and employers. ❐ Delivery of workers' compensation services to the workers and employers of Alberta. ❐ Make decisions based on evidence, law and policy and a fair, impartial and transparent processes. ❐ Encourage safer workplaces and promote disability management.	Employer must report to WCB within 72 hours of being notified of an injury/illness that results in or will likely result in: ❐ Lost time or the need to temporarily or permanently modify work beyond the date of accident ❐ Death or permanent disability (amputation, hearing loss, etc.) ❐ A disabling or potentially disabling condition caused by occupational exposure or activity (poisoning, infection, respiratory disease, dermatitis, etc.) ❐ The need for medical treatment beyond first aid (assessment by a physician or chiropractor, physiotherapy, etc.) ❐ Medical aid expenses (dental treatment, eyeglass repair/replacement, prescription medications, etc.) Note: Immediately report fatalities and serious injuries to the OHS Contact Centre 1-866-415-8690. ❐ Determines whether the injury or illness is caused by work. ❐ Responds to all client inquiries forwarded by the Minister and all other elected officials.	❐ Compensates injured workers for lost income, health care and other costs related to a work-related injury. ❐ Safely restores injured workers through return-to-work services to a level of competitive employability. ❐ Take reasonable measures to maintain a reasonable quality of life for severely injured workers through the provision of services allowed by legislation and policy.
***WCSS**	Cooperatives operate within specific geographic areas. The petroleum companies in each Co-op work together to achieve a state of spill response readiness. To accomplish this Cooperatives maintain spill contingency plans and strategically place OSCARS (Oil Spill Containment and Recovery units) that are available to all member companies in the area. They hold annual training exercises and provide educational funding for their membership. In an effort to continually improve, Co-ops are often involved in research and development projects. WCSS members in good standing must sign an equipment use agreement to access equipment and are not charged for the use of the equipment; non-members have access to our equipment at our discretion and at a daily rental rate. Operators who are members in good standing of an Area Spill Response Unit or Western Canada Spill Services are only required to provide the name(s) and phone numbers (s) of their emergency contact personnel. The operators must maintain their membership with the Area Spill Response Unit and participate in the annual spill training exercise(s).	WCSS receives a call from Petroleum Company and dispatches the necessary equipment (wildlife equipment, airboats, winter response units, drum skimmers, containment and recovery equipment, regional OSCAR etc.).	❐ The equipment user is responsible for equipment repairs and/or replacement if necessary, costs to inventory and restock units and for consumables that are used.

*WCB - Workers' Compensation Board *WCSS - Western Canadian Spill Services *AEP - Alberta Environment & Parks

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FEDERAL AGENCY ROLES

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
*Environment & Climate Change Canada	Environment & Climate Change Canada's Environmental Emergencies Program (EEP) protects Canadian and their environment fro 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. The 24/7 spill line in British Columbia is EMBC - 1-800-663-3456. ECCC's services during an environmental emergency: ❒ Collaborate with federal, provincial, territorial and international environmental protectin agencies to enable rapid sharing of information. ❒ Convene and chair a Science Table of experts and stakeholders to develop consensus based advice to the Lead Agency. ❒ Identify environmentally sensitive areas and priorities (sensitivity and resource at risk mapping). ❒ Advise on mitigation and cleanup measures. ❒ Provide support and guidance in the assessment of oiled shorelines to prioritize their protection and cleanup (Shoreline Cleanup Assessment Technique (SCAT). ❒ Advice on the fate and behavior of the spilled product. ❒ Advice on sampling and laboratory analysis. ❒ Provide weather forecasting and spill dispersion modelling to identify where these substances are likely to move in the environment. ❒ Provided expertise on the migratory bird resources and species at risk, including on-site assessment and determination of wildlife impact. ❒ Can conduct post-emergency assessments.	❒ ECCC can conduct post-emergency assessments. ❒ Provide specialized advice in shoreline clean-up assessment techniques (SCAT). ❒ Provide Advise on mitigation and cleanup measures..
*DFO Canada	The Canadian Coast Guard is the lead federal agency for ensuring appropriate response to all ship-source and unknown mystery spills in Canadian waters and waters under international agreements. ❒ Establishes appropriate and nationally consistent level of preparedness and response services in Canadian waters. ❒ Design and develop related regulations, policies, strategies and tools. ❒ Review, assess and monitor activities associated with fish habitat to ensure their compliance with the Fisheries Act and Species at Risk Act. ❒ Conduct environmental assessments under the Canadian Environmental Assessment Act. ❒ Design, develop and implement communication and education strategies.	❒ Any amount of hydrocarbons entering a waterway frequented by fish or occupied by waterfowl is deemed to be in contravention of the Federal Fisheries Act and must be reported to the Department of Fisheries and Oceans. ❒ Work together with provincial environment protection agencies and may be initially notified by ECCC. ❒ May send personnel to the site if there has been or could potentially be an impact to fish or fish habitat. ❒ Monitors and investigates all reports of marine pollution in Canada in conjunction with other federal departments. ❒ Maintains communications with the program's partners, including Transport Canada and ECCC, to ensure a consistent coordinated approach to marine pollution incident response. ❒ Aids in search and rescue operations.	❒ Work closely with ECCC, The Canadian Coast Guard and other provincial environmental agencies.
NAV Canada	NAV Canada is a private company who coordinates the safe and efficient movement of aircraft in Canadian domestic airspace and international airspace assigned to Canadian control. Flight Information Centre (FIC) – FIC Services Each Flight Information Centre is responsible for providing its particular service area with the following services, which pilots rely upon for safe flight planning and operations: ❒ Emergency ❒ Aviation Weather Briefing ❒ Flight Planning ❒ En-route Flight Information Services ❒ Remote Aerodrome Advisory Services (RAAS)	❒ As requested by the provincial oil and gas regulator, the Flight Information Centre will issue a NOTAM (Notice to Airmen). ❒ To close air space beyond an airport (e.g. above a sour gas release), the Flight Information Centre can be contacted by the provincial oil and gas regulator. Depending on the situation, the Flight Information Centre may issue a NOTAM to close the air space in a defined area.	❒ Rescind the NOTAM and re-open air space that was closed due to emergency.
Health Canada	❒ Sets national standards to keep the environment healthy, keep water and air pollution low and Canadians safe. ❒ Maintains a nationwide network of radiation monitoring stations and can act if levels spike. ❒ Under Chemicals Management Plan, assess health risks from chemicals used in manufacturing and agriculture and require users to prove they actually need the chemicals to make their products ❒ Sets strict rules on how chemicals are used in order to limit human exposure. ❒ Preparedness exercises are designed to test how well the plans and procedures work during simulated emergency situations. Such exercises help the government identify strengths as well as any problems or inadequacies in preparedness plans and procedures so that these can be addressed before, not after, an actual emergency.	❑ During a health emergency or disaster, Health Canada and the Public Health Agency of Canada are responsible for supporting emergency health and social services in the provinces and territories.	❒ Work collaboratively with the provinces and territories to test ways in which the Canadian health care system can be improved and ensure its sustainability for the future.
Public Health Agency of Canada	The Centre for Emergency Preparedness and Response (CEPR) is responsible for: ❒ Developing and maintaining national emergency response plans for the Public Health Agency of Canada and Health Canada. ❒ Assessing public health risks during emergencies. ❒ Contribution to keeping Canada's health and emergency policies in line by collaborating with other federal and international health and security agencies. ❒ The health authority in the Government of Canada on bioterrorism, emergency health services and emergency response. ❒ Strengthen intergovernmental collaboration on public health and facilitate national approaches to public health policy and planning. ❒ Manages emergency preparedness and emergency response plans and keeps them up to date. ❒ Develops and runs exercises to train emergency workers. ❒ Develops and delivers training courses that teach health workers how to respond to emergencies.	❑ In an emergency situation, the Office of Emergency Response Services (OERS) is responsible for supporting emergency health and social services in the provinces, territories or abroad. It manages the National Emergency Stockpile System (NESS), which includes medical, pharmaceutical and related emergency supplies. The Office is responsible for the federal response to emergencies that have health repercussions; this includes the deployment of health emergency response teams (HERT). ❑ If a public health emergency grows beyond one province and/or territory, the Public Health Agency of Canada usually gets involved.	❒ Work with Health Canada to test ways in which the Canadian health care system can be improved and ensure its sustainability for the future.
*Aboriginal Affairs and Northern Development Canada	❒ Provide government leadership in response to Arctic Seas contingencies related to oil and gas exploration and production activities. ❒ Ensure that the First Nation communities have emergency management services comparable to those of Canadians in similar situations. ❒ Work to establish an all-hazards approach for responding to emergencies that impact First Nation communities. ❒ Responsible for developing, exercising, implementing and maintaining regional emergency management plans. ❒ Responsible for negotiating agreements with their respective provincial government for the delivery of management services in First Nations communities. ❑ Each region is responsible for working with First Nations communities and emergency management organizations to evaluate the threat and risks associated with emergencies and take steps to mitigate potential emergencies. ❑ Regions and HQ are responsible for activities arising from the preparedness phase of emergency planning, including on-going training, exercising and supporting the development and maintenance of First Nations Emergency Management Plans. ❑ Responsible for conducting national or regional exercises, including table top exercises. ❑ The Emergency and Issues Management Directorate (EIMD) is responsible for developing, exercising, implementing and maintaining AANDC's National Emergency Management Plan. ❑ EIMD will work collaboratively with regional counterparts, Communications Branch, and other stakeholders to update this plan and the annexes, as required by changes in policy, legislation, or to incorporate lessons learned from exercises and actual emergencies. ❑ The plan will undergo a full review at a minimum of every 3 years.	❑ The AANDC HQ EM Operations Centre liaises with the Government of Canada (GOC) in an effort to ensure an integrated GOC response to emergencies in First Nations communities. ❑ If an emergency becomes significant, Operations can activate AANDC's National Emergency Operations Centre which provides an enhanced scalable response including 24/7 service. ❑ The AANDC HQ Emergency Management (EM) Operations Centre is responsible for coordinating and monitoring emergency management activities impacting First Nations communities form a national perspective. ❑ Operations staff are responsible for monitoring, validating, and providing situational awareness products such as notifications, summaries, fire and flood reports to senior management, the Government Operations Centre, law enforcement, and other agencies on emergencies impacting First Nations communities. ❑ Regional emergency management coordinators are responsible for coordinating and liaising with First Nations and the local emergency management organizations. ❑ AANDC headquarters and regions must work closely together to ensure timely flow of information. ❑ Regions are responsible for reporting any emergencies to AANDC's operations centre located within EIMD in headquarters. ❑ EIMD is responsible for ensuring senior management is kept informed of any emergencies threatening First Nations communities through the preparation of various briefing reports, notifications and summaries as the event develops. ❑ EIMD is committed to search and recovery based on compassionate grounds. When a search and rescue operation is terminated and the individual(s) have not been located, the department may fund the extension of search and recovery activities. ❑ Regions should identify and communicate with non-government organizations located within their area of responsibility to determine what they can offer First Nations during emergencies. ❑ Mitigation of the effects of emergencies on First Nations reserves for which the department has legal responsibility, including arrangements for community evacuation and temporary shelter, and provision of territorial support. ❑ Coordination of federal assistance and response to emergencies in response to requests from territorial government authorities, for all cases in which the mandate does not clearly fall to another federal Minister. ❑ Provide an assurance to the province that AANDC will provide funding to cover costs related to emergency assistance in First Nations communities. ❑ Response activities include emergency public communication, search and rescue, emergency medical assistance and evacuation.	❒ Once an incident is terminated, key staff and stakeholders are to be regrouped as soon as possible to conduct a formal debrief to identify areas for improvement and to identify key lessons learned. ❒ A lessons learned and after action report should be completed no later than 30 calendar days after the conclusion of the emergency. It is to be shared nationally and on a constructive basis to enhance the department's emergency management capabilities. ❒ Mitigate the effects of an emergency on First Nations people in the area. ❒ Work with the Chief and Council to assess the situation, determine the most effective way to repair damage and ensure delivery of programs and services to the community. ❒ AANDC will compile statistical data pertaining to which First Nations communities that are impacted by emergencies, the causes and severity of the emergency as well as other trends that will assist with preparation initiatives in future years. ❒ Recovery activities include the return of evacuees, trauma counselling, reconstruction, economic impact studies and financial assistance for eligible costs. ❒ Returning a community to a state of normalcy is a priority.

*DFO – Canadian Department of Fisheries & Oceans *PSC - Public Safety Canada *AANDC – Aboriginal Affairs and Northern Development Canada *ECCC - Environment & Climate Change Canada

August 2017

H2Safety Services Inc.

Canada

FEDERAL AGENCY ROLES

Canada

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	BEFORE THE INCIDENT	DURING THE INCIDENT	AFTER THE INCIDENT
*FNIH	❒ Deliver public health and emergency management for on-reserve First Nations and Inuit communities. ❒ Maintain a 24 hour emergency telephone service. ❒ Receive Emergency Response Plans.	❑ Monitor the health effects of the incident on the First Nations people of the area.	❒ Ensure appropriate data is collected to monitor the health effects of the incident. ❒ Recommend further investigation or research after the event is warranted.
TRANSPORT CANADA *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 infections substances. ❒ Maintains records of over 2 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.
*EMERGENCY RESPONSE ASSISTANCE CANADA	Emergency Response Assistance Canada (ERAC) is a not for profit cooperative organization built by industry for industry providing safe, timely effective, sustainable, cost effective flammable liquids and gases emergency preparedness and response assistance to all Plan Participants and Stakeholders of ERAC. ❒ ERAC will act on behalf of the Plan Participant to develop, submit, update, and respond to the requirements of the Plan Participant ERAP submitted to and approved by Transport Canada. ❒ ERAC provides a network of experienced, trained Technical Advisors (TAs), Remedial Measures Advisors (RMAs) and Response Teams who respond to rail, road and stationary tank incidents involving flammable gases, Class 2.1 Liquefied Petroleum Gas (LPG) emergencies and Flammable Liquids Class 3 rail transport emergencies. The emergency responders are constantly available through a 24-hour activation telephone number. ❒ Once a year, there is Regional Training that is held in each region for the Remedial Measures Advisors, Technical Advisors, Response Team Leaders, Alternate Team Leaders as well as all Response Team Members to test their skills and update them on any new developments. Also, once every two years, National Training Session is held for all the Remedial Measures Advisors, Technical Advisors, Response Team Leaders and Alternate Team leaders across Canada.	Provides emergency response to plan participants who transport the following products by road or rail, or those who store these products in tanks with capacities of 450 litres or greater. These products are gases at standard temperatures and pressure, and include: Propane (UN1978), Butane (UN1011), Propylene (UN1077), Butylene (UN1012), Isobutene (UN1969), Isobutylene (UN1055). It is recognized that these products may contain a concentration of condensate and/or quantities of other elements including hydrogen sulphide. ❒ Response is also provided to emergencies involving Butadiene – 1,3 (stabilized) (UN1010). In addition we respond to the following Flammable Liquids transported by rail only: UN1170 Ethanol; UN1202 Diesel Fuel; UN1203 Gasoline; UN1267 Petroleum Crude Oil; UN1268 Petroleum Distillates N.O.S.; UN1863 Fuel Aviation, Turbine Engine; UN1987 Alcohols, N.O.S.; UN1993 Flammable Liquid, N.O.S.; UN3295 Hydrocarbons, Liquid, N.O.S.; UN3475 Ethanol and Gasoline Mixture; UN3494 Petroleum Sour Crude Oil, Flammable, Toxic ❒ If LPG/Flammable Liquid Incident, Emergency Call Centre Operator receives an activation (notification) phone call. ❒ Emergency Call Centre Operator sends group email to Home Based Coordinator. ❒ Home Based Coordinator / Technical Advisor conferenced into call to assist with information gathering. ❒ Caller requires technical advice. ❒ Home Based Coordinator / Technical Advisor provides technical advice. ❒ Caller requests response team. ❒ Confirm plan participant involvement. ❒ Plan participant notified of activation. ❒ Home Based Coordinator / Technical Advisor activate plan. ❒ Mobilization phase ERAC-002. ❒ Initial incident size-up. ❒ Damage and spill assessment. ❒ Develop Incident Action Plan. ❒ Execute IAP & initiate planning for next operational period. ❒ Update Emergency Call Centre Operator and Home Based Coordinator.	❒ Terminate and de-mobilize. ❒ Post-incident assessment and communication program.
*PSC	❒ 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.

*NATIONAL ENERGY BOARD ROLES & RESPONSIBILITIES

The NEB's top priority in any emergency is to make sure that people are safe and secure, and that property and the environment are protected. Any time there is a serious incident, NEB inspectors may attend the site to oversee a company's immediate response. The NEB will require that all reasonable actions are taken to protect employees, the public and the environment. Further, the NEB will verify that the regulated company conducts adequate and appropriate clean-up and remediation of any environmental effects caused by the incident.

And/or

As lead regulatory agency, the NEB:

- ❑ Monitors, observes and assesses the overall effectiveness of the company's emergency response in terms of:
  - Emergency Management
  - Safety
  - Security
  - Environment
  - Integrity of operations and facilities; and
  - Energy Supply.
- ❑ Investigates the event, either in cooperation with the Transportation Safety Board of Canada, under the Canada Labour Code, or as per the National Energy *Board Act or Canada Oil & Gas Operations Act* (whichever is applicable)
- ❑ Inspects the pipeline or facility
- ❑ Examines the integrity of the pipeline or facility
- ❑ Requires appropriate repair methods are being used
- ❑ Appropriate environmental remediation of contaminated areas is conducted
- ❑ Coordinate stakeholder and Aboriginal community feedback regarding environmental clean-up and remediation
- ❑ Confirms that a company is following its Emergency Procedures Manual (s), commitments, plans, procedures, and NEB regulations and identifies non-compliances
- ❑ Initiates enforcement actions as required
- ❑ Approves the restart of the pipeline.

DEFINITIONS

INCIDENT

An occurrence that results in:

- ❑ The death of or serious injury to a person (as defined in the OPR or TSB regulations);
- ❑ Missing person [as reportable pursuant to the Canada Oil and Gas Drill and Production Regulations (DPR) under the Canada Oil and Gas Operations Act (COGOA) or the Oil and Gas Operations Act (OGOA)];
- ❑ Releases that may have significant adverse impact on the environment;
- ❑ Unintended fire or explosion that causes a pipeline or facility to be inoperative;
- ❑ Unintended or unplanned release of LVP hydrocarbons in excess of 1.5 m3 that leaves company property or the right of way;
- ❑ Unintended or uncontrolled release of gas or HVP hydrocarbons; and
- ❑ Operation of a pipeline beyond its design limits as defined by CSA Z662, CSA Z276 or any operating limits imposed by the NEB.
- ❑ A rupture; or
- ❑ A toxic plume as defined in CSA Z662.

RELEASE

Includes discharge, spray, spill, leak, seep, pour, emit, dump and exhaust.

SERIOUS INJURY

Includes an injury that results in:

- ❑ the fracture of a major bone;
- ❑ the amputation of a body part;
- ❑ the loss of sight in one or both eyes;
- ❑ internal hemorrhage;
- ❑ third degree burns;
- ❑ unconsciousness; or
- ❑ the loss of a body part or function of a body part.

National Energy Board definitions according to the definition provided by "Onshore Pipeline Regulations, 1999"

*TRANSPORTATION SAFETY BOARD MANDATE

The Canadian Transportation Accident Investigation and Safety Board Act provides the legal framework that governs TSB activities. Our mandate is to advance transportation safety in the marine, pipeline, rail and air modes of transportation by:

- ❑ conducting independent investigations, including public inquiries when necessary, into selected transportation occurrences in order to make findings as to their causes and contributing factors;
- ❑ identifying safety deficiencies, as evidenced by transportation occurrences;
- ❑ making recommendations designed to eliminate or reduce any such safety deficiencies; and
- ❑ reporting publicly on our investigations and on the findings in relation thereto.

As part of its ongoing investigations, the TSB also reviews developments in transportation safety, and identifies safety risks that they believe the government and the transportation industry should address to reduce injury and loss.

To instill confidence in the public regarding the transportation accident investigation process, it is essential that an investigating agency be independent and free from any conflicts of interest when investigating accidents, identifying safety deficiencies, and making safety recommendations. As such, the TSB is an independent agency, separate from other government agencies and departments, that reports to Parliament through the President of the Queen's Privy Council for Canada. Our independence enables us to be fully objective in making findings as to causes and contributing factors, and in making transportation safety recommendations.

In identifying the causes and contributing factors of a transportation incident, it is not the function of the Board to assign fault or determine civil or criminal liability. However, the Board does not refrain from fully reporting on the causes and contributing factors merely because fault or liability might be inferred from the Board's findings. No finding of the Board should be construed as assigning fault or determining civil or criminal liability. Findings of the Board are not binding on the parties to any legal, disciplinary, or other proceedings.

http://www.bst-tsb.gc.ca/eng/qui-about/mission-mandate.asp

*ERAC - Emergency Response Assistance Canada *CANUTEC - Canadian Transport Emergency Centre *NEB - National Energy Board *TSB - Transportation Safety Board PSC - Public Safety Canada *FNIH – First Nations & Inuit Health

August 2017

H2Safety Services Inc.

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Purpose

To provide guidance on regulatory and company reporting and notification requirements to internal stakeholders. This standard may not cover every possible regulatory reporting scenario so must be used in conjunction with applicable regulations, standards, directives and regulatory guidance documents.

Scope

This includes verbal and written reporting. Verbal reports include immediate notification to appropriate internal departments, as well as external reporting to federal/provincial/municipal agencies on provincially and federally regulated lines (see *Terms & Definitions*).

Figure 1 – Incident Reporting Table Usage Guide

Table 1 – Significant Incident Notifications

Table 2 – Releases/Leaks/Spills

- Table 2A – Commodities
- Table 2B – Transport of Dangerous Goods
- Table 2C – Non-Commodities
- Table 2D – Halocarbons

Table 3 – People (Occupational Illness/Injury)

- Table 3A – Fatality/ Serious Injury
- Table 3B – Loss of Consciousness/ Electric Shock/ Toxic Atmosphere/ Oxygen Deficient Atmosphere
- Table 3C – Medical Aid/ Modified Work
- Table 3D – First Aid

Table 4 – Property Damage

- Table 4A – Structural Integrity/ Structural Threat to the Pipeline/ Operating Beyond Design Limits (i.e., Overpressures)
- Table 4B – Fires/ Explosions
- Table 4C – Lifting/Elevating Devices & Other Property Damage
- Table 4D – Motor Vehicle Incident/Damage
- Table 4E – Nuclear Densitometer Damage/ Explosives Near Densitometer
- Table 4F – Pressure Vessels/ Boilers/Heaters/ Heat Exchangers
- Table 4G – Alberta Transmission Facilities

Table 5 – Rescue/Near Misses

Table 6 – Environment - Adverse Environmental Effects or Environmental Non-Compliance

Table 7 – Security

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Figure 2 – TSB/NEB Regulatory Incident Reporting
Figure 3 – AER Regulatory Incident Reporting
Appendix I – Agency Contact Phone Numbers
Appendix II – Reportable Quantities of Transported Dangerous Goods
Appendix III – TSB Verbal Notification Guidance Worksheet
Appendix IV - Commentary

Responsibilities

Workers

Workers are responsible for:

- notifying their immediate supervisor of any incidents

Regions/Projects

Regions/projects are responsible for:

- initiating incident reporting to applicable regulators, agencies, local police and/or other stakeholder departments as outlined in the Incident Reporting Tables
- completing the incident investigation within the timelines specified and documented within the incident management systems
- completing region-identified reporting in accordance with the Incident Reporting Tables
- completing the High Value Learning Event (HVLE) in EnCompass, where applicable

Control Center

Control Center is responsible for:

- initiating incident reporting to applicable regulators in the event of overpressure incidents, as more specifically outlined in the Incident Reporting Tables
- initiating internal email notifications for temperature threshold exceedances
- contacting regional on-call individual when potential contaminated soil is discovered

Land Services

Land Services is responsible for:

- initiating internal incident reporting as outlined in the Incident Reporting Table 5.3
- notifying the region when consent of a 3rd party crossing or proximity agreement has been suspended

Mainline Projects

Mainline Projects (MLP) is responsible for notifying the control center when potential contaminated soil is discovered.

Petroleum Quality

Petroleum Quality is responsible for:

- initiating internal incident reporting as outlined in the Incident Reporting Table 4A.2
- contacting Regulatory Affairs when an inappropriate product is discovered

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Pipeline Integrity

Pipeline Integrity (PI) is responsible for:

- completing PI identified reporting in accordance with the Incident Reporting Tables (i.e., abnormalities that reduce the structural integrity of the pipeline)
- providing support to Operations and control center during incident investigations

Regional Right-of-Way Services

Regional Right-of-Way Services is responsible for:

- sending the preliminary notification to applicable regulators and notifying internal stakeholders for any activity in the immediate vicinity of the pipeline which poses a threat to the structural integrity of the pipeline

Regulatory Affairs, Health & Safety, Damage Prevention, Environment and Radiation Safety Officer

Regulatory Affairs, Health & Safety (H&S), Damage Prevention, Environment and Radiation Safety Officer are responsible for:

- completing written regulatory reports and submitting them to applicable regulators or agencies
- providing guidance on regulatory reporting requirements

Requirements

Using the Incident Reporting Tables

Regulators and outside agencies should not be contacted until the incident (i.e., suspected leak, suspected pressure drop, etc.) is confirmed to have occurred.

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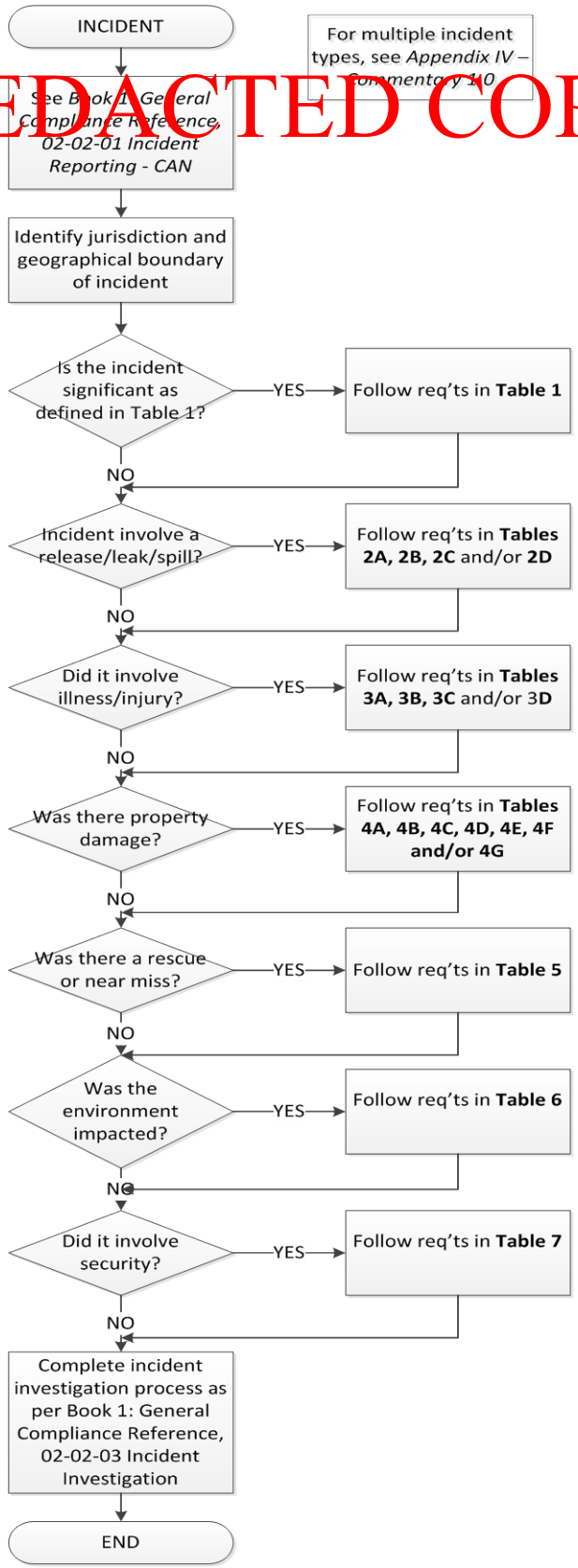

Figure 1
Incident Reporting Table Usage Guide

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Table 1
Significant Incident Notifications

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines Immediately
Federally or Provincially-regulated pipelines	**[1.1] In all Provinces and Territories** Pipeline incident that results in any of the following: • release on or off property during normal operations or maintenance activities - ≤ 0.8 m^3 (5 bbl) but may be a risk to workers, public or environment (i.e., NGL release, liquid release into waterbody, etc.) - > 0.8 m^3 (5 bbl) • immediately reportable to the National Energy Board and the Transportation Safety Board [federally-regulated pipeline] or Alberta Energy Regulator [Alberta provincially-regulated pipeline] • results in hospitalization or death of an employee or contract worker • affects the pipeline system - in excess of 4 hours o on a pipeline that is in apportionment; or o simultaneous outage of multiple pipelines or a terminal facility, with multiple incoming/outgoing lines (i.e., power outage, odor call in, etc.) - in excess of 12 hours on a pipeline that is not in apportionment - results in a feeder line being shut-out, a refinery running out of crude or significant customer issue likely to be escalated • has a reasonable likelihood of being picked up by media as event of significance ***NOTE***: *For additional guidance, see Appendix IV – Commentary (1.1)*	Send email notification to mailing group 'LP Significant Incident Notifications' * (*Regional / Department Director or designate*) Initiate call-up notification process** (*Regional / Department Director or designate*)

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Table 2A
Releases/Leaks/Spills – Commodities

The Canadian Environmental Protection Act, Environmental Emergency Regulations apply to any product that has a flashpoint ≤ 23°C or a boiling point ≤ 35°C; or any product that is subject to the TDG Act and is being loaded or unloaded at a facility. A release of these products (e.g., condensates, diluents, gasoline) triggers reporting to Environment Canada via the provincial agency. Volume thresholds are aligned with provincial requirements and no further work is required with the initial report. The requirement to report is addressed by complying with the applicable provincial reporting criteria outlined below.

- *If release had/has potential to migrate offsite or affects a natural habitat within a facility (including impact to fish and fish habitat), see Table 6*
- *If release, regardless of volume, has entered water or may cause/is causing/has caused an adverse environmental effect, see Table 6*
- *If historical contamination is discovered, contact Environment as provincial and/or federal reporting may be required*
- *Pipeline right-of-way is considered offsite, outside of facility, off-lease*
- *Record in EnCompass all commodity releases > 1 L and any commodity releases < 1 L that, if left unattended, are likely to exceed the threshold or result in increased risk or trigger regulatory reporting (for recording guidance, see Appendix IV Commentary, Section 2A)*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*
- *The Saskatchewan Ministry of Economy Integrated Resource Information System (IRIS) is located at http://www.saskatchewan.ca/IRIS*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**Within 7 days****	**Within 30 days**	**Within 12 weeks**
Federally-regulated pipelines	**[2A.1] In all Provinces and Territories** An event that includes any of the following: – an unintended or uncontrolled LVP hydrocarbon release in excess of 1.5m^3 (9.4 bbls) that leaves company property or occurs on or off the right-of-way – a rupture (an instantaneous release that immediately impacts operation of a pipeline segment such that the pressures of the segment cannot be maintained) – a toxic plume - a band of service fluid or other contaminant (e.g., hydrogen sulfide, smoke) resulting from an incident that causes people, including employees, to take protective measures (e.g., muster, shelter in place, evacuation). – an unintended or uncontrolled sweet natural gas or HVP release > 30,000 m^3 – any unintended or uncontrolled release of sour natural gas or hydrogen sulfide	Verbal to TSB* [3 hours] (*Region*) Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial Submission in OERS to NEB and TSB [3 hours] (*Region*) Notify Regulatory Affairs of OERS submission *(Region)* * *see Appendix III for guidance*	---	Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	Final Submission in OERS to NEB (*Regulatory Affairs*)

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Table 2A
Releases/Leaks/Spills – Commodities

The Canadian Environmental Protection Act, Environmental Emergency Regulations apply to any product that has a flashpoint ≤ 23°C or a boiling point ≤ 35°C; or any product that is subject to the TDG Act and is being loaded or unloaded at a facility. A release of these products (e.g., condensates, diluents, gasoline) triggers reporting to Environment Canada via the provincial agency. Volume thresholds are aligned with provincial requirements and no further work is required with the initial report. The requirement to report is addressed by complying with the applicable provincial reporting criteria outlined below.

- *If release had/has potential to migrate offsite or affects a natural habitat within a facility (including impact to fish and fish habitat), see Table 6*
- *If release, regardless of volume, has entered water or may cause/is causing/has caused an adverse environmental effect, see Table 6*
- *If historical contamination is discovered, contact Environment as provincial and/or federal reporting may be required*
- *Pipeline right-of-way is considered offsite, outside of facility, off-lease*
- *Record in EnCompass all commodity releases > 1 L and any commodity releases < 1 L that, if left unattended, are likely to exceed the threshold or result in increased risk or trigger regulatory reporting (for recording guidance, see Appendix IV Commentary, Section 2A)*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*
- *The Saskatchewan Ministry of Economy Integrated Resource Information System (IRIS) is located at http://www.saskatchewan.ca/IRIS*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**Within 7 days****	**Within 30 days**	**Within 12 weeks**
Federally-regulated pipelines	**[2A.2] In all Provinces and Territories** – Unintended or uncontained release of LVP hydrocarbons in excess of 1.5 m³ (9.4 bbls) that is contained on company property (LVP hydrocarbons include refined and/or unrefined hydrocarbons from within the pipeline) a) Immediately reportable LVP incidents > 1.5m^3 (9.4 bbls) include, but are not limited to: – crude oil on tank roofs – crude oil on building concrete floors – pump seals – if drain system overflows (i.e. blocked drain, pump seal failure causing flow above system capacity, etc.) – releases from facility equipment (i.e., valves, traps, meters, mixers, flanges, threaded connections, etc.) – Unintended or uncontrolled release of gas or high-vapour pressure (HVP) hydrocarbons a) HVP includes natural gas liquids (NGL) b) 'Unintended' or 'uncontrolled' in this context means an event that is not part of planned pipeline maintenance or operation and occurs during construction, operation or abandonment and results in: – a release of gas or HVP hydrocarbons occurring at a rate > 0.1 kg/second from any malfunctioning or faulty part of a pipeline, facility or appurtenance including, but not limited to, seals, packing, gaskets, O-rings, plugs, valves; OR – a release of any size that occurs through the body of the pipeline of a welded connection – Unintended or uncontrolled release of a commodity other than gas, HVP hydrocarbons or LVP hydrocarbons ***NOTE***: *For additional guidance and rate of release calculation, see Appendix IV – Commentary (2A.2)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to NEB and TSB [24 hours] (*Region*) Notify Regulatory Affairs of OERS submission *(Region)*	---	Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	Final Submission in OERS to NEB (*Regulatory Affairs*)
Federally or Provincially – regulated pipelines	**[2A.3] In all Provinces and Territories** – Unintended or uncontained release of LVP hydrocarbons < 1.5 m³ (9.4 bbls) ***NOTE***: *For additional guidance, see Appendix IV – Commentary (2A.3)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 2A
Releases/Leaks/Spills – Commodities

The Canadian Environmental Protection Act, Environmental Emergency Regulations apply to any product that has a flashpoint ≤ 23°C or a boiling point ≤ 35°C; or any product that is subject to the TDG Act and is being loaded or unloaded at a facility. A release of these products (e.g., condensates, diluents, gasoline) triggers reporting to Environment Canada via the provincial agency. Volume thresholds are aligned with provincial requirements and no further work is required with the initial report. The requirement to report is addressed by complying with the applicable provincial reporting criteria outlined below.

- *If release had/has potential to migrate offsite or affects a natural habitat within a facility (including impact to fish and fish habitat), see Table 6*
- *If release, regardless of volume, has entered water or may cause/is causing/has caused an adverse environmental effect, see Table 6*
- *If historical contamination is discovered, contact Environment as provincial and/or federal reporting may be required*
- *Pipeline right-of-way is considered offsite, outside of facility, off-lease*
- *Record in EnCompass all commodity releases > 1 L and any commodity releases < 1 L that, if left unattended, are likely to exceed the threshold or result in increased risk or trigger regulatory reporting (for recording guidance, see Appendix IV Commentary, Section 2A)*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*
- *The Saskatchewan Ministry of Economy Integrated Resource Information System (IRIS) is located at http://www.saskatchewan.ca/IRIS*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**Within 7 days****	**Within 30 days**	**Within 12 weeks**
Federally-regulated pipelines	**[2A.4] In all Provinces and Territories** Release of any amount of commodity from line pipe body. ***GUIDANCE:*** *For the purpose of this reporting requirement, any volume of commodity from the line pipe body that occurs on the right-of-way or any commodity release that exceeds 1.5 m^3 within a facility must be reported.* ***NOTE***: *For additional guidance, see Appendix IV – Commentary (2A.4)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to TSB [24 hours] (Region) Notify Regulatory Affairs of OERS submission *(Region)* **see Appendix III for guidance*	---	Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Federally-regulated pipelines	**[2A.5] In Alberta** – any release that is reported to the NEB	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AER (*Region*)	Written Release Report to AER *(Env Dept)*	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Federally-regulated pipelines	**[2A.6] In Saskatchewan** – any release ≥ 500 L (onsite) – any release ≥ 200 L (offsite) – any subsurface release	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to SK Ministry of Environment (*Region*)	---	Discharge Report Form to SK Ministry of Environment *(Env Dept)* Complete Incident Investigation Form and other applicable forms in EnCompass	---

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Table 2A
Releases/Leaks/Spills – Commodities

The Canadian Environmental Protection Act, Environmental Emergency Regulations apply to any product that has a flashpoint ≤ 23°C or a boiling point ≤ 35°C; or any product that is subject to the TDG Act and is being loaded or unloaded at a facility. A release of these products (e.g., condensates, diluents, gasoline) triggers reporting to Environment Canada via the provincial agency. Volume thresholds are aligned with provincial requirements and no further work is required with the initial report. The requirement to report is addressed by complying with the applicable provincial reporting criteria outlined below.

- *If release had/has potential to migrate offsite or affects a natural habitat within a facility (including impact to fish and fish habitat), see Table 6*
- *If release, regardless of volume, has entered water or may cause/is causing/has caused an adverse environmental effect, see Table 6*
- *If historical contamination is discovered, contact Environment as provincial and/or federal reporting may be required*
- *Pipeline right-of-way is considered offsite, outside of facility, off-lease*
- *Record in EnCompass all commodity releases > 1 L and any commodity releases < 1 L that, if left unattended, are likely to exceed the threshold or result in increased risk or trigger regulatory reporting (for recording guidance, see Appendix IV Commentary, Section 2A)*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*
- *The Saskatchewan Ministry of Economy Integrated Resource Information System (IRIS) is located at http://www.saskatchewan.ca/IRIS*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**Within 7 days****	**Within 30 days**	**Within 12 weeks**
		Verbal to landowner, as soon as practicable *(Region)*		(*Region*)	
Federally-regulated pipelines	**[2A.7] In Manitoba** – any commodity release that results in an environmental adverse effect	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MB Sustainable Development (*Region*)	Written Spill Report to MB Sustainable Development, if requested *(Env Dept)*	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Federally-regulated pipelines	**[2A.8] In Ontario** – any release (includes deposit, leak, emission or addition) of any solid, liquid, gas or odour that involves all of the following: – into natural environment (i.e., air, land, water); and – from or out of a man-made structure/container (i.e., pipeline); and – abnormal in quality or quantity in circumstances	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MOECC (via Spills Action Center), Verbal to affected municipality and Verbal to owner of spilled pollutant (where the Company does not own pollutant) *(Region)*	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 2A
Releases/Leaks/Spills – Commodities

The Canadian Environmental Protection Act, Environmental Emergency Regulations apply to any product that has a flashpoint ≤ 23°C or a boiling point ≤ 35°C; or any product that is subject to the TDG Act and is being loaded or unloaded at a facility. A release of these products (e.g., condensates, diluents, gasoline) triggers reporting to Environment Canada via the provincial agency. Volume thresholds are aligned with provincial requirements and no further work is required with the initial report. The requirement to report is addressed by complying with the applicable provincial reporting criteria outlined below.

- *If release had/has potential to migrate offsite or affects a natural habitat within a facility (including impact to fish and fish habitat), see Table 6*
- *If release, regardless of volume, has entered water or may cause/is causing/has caused an adverse environmental effect, see Table 6*
- *If historical contamination is discovered, contact Environment as provincial and/or federal reporting may be required*
- *Pipeline right-of-way is considered offsite, outside of facility, off-lease*
- *Record in EnCompass all commodity releases > 1 L and any commodity releases < 1 L that, if left unattended, are likely to exceed the threshold or result in increased risk or trigger regulatory reporting (for recording guidance, see Appendix IV Commentary, Section 2A)*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*
- *The Saskatchewan Ministry of Economy Integrated Resource Information System (IRIS) is located at http://www.saskatchewan.ca/IRIS*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	Within 7 days**	Within 30 days	Within 12 weeks
Federally-regulated pipelines	**[2A.9] In Quebec** – any commodity release	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MDDELCC (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Federally-regulated pipelines	**[2A.10] In Northwest Territories** – crude oil release of any volume	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Internal notification to Regulatory Affairs (*Region*)	---	Monthly Report to NEB (*Regulatory Affairs*)	---
Federally-regulated pipelines	**[2A.11] In Northwest Territories (…continued)** – any release from a pipeline that exceeds 100 L – any release, or potential release, of any volume that: - is near or in an open water body - is near or in a designated sensitive environment or habitat - poses an imminent threat to human health or safety, or to a listed species at risk or its critical habitat	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Spill Report Form to NT-NU 24-hr Spill Report Line (*Region*) If spill on land regulated under land use permits: Verbal notification to Gov't of NWT Land Use Inspector within 24 hrs	---	If spill on land regulated under land use permits: Detailed report to MVLWB and Gov't of NWT Land Use Inspector (*Env Dept*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 2A
Releases/Leaks/Spills – Commodities

The Canadian Environmental Protection Act, Environmental Emergency Regulations apply to any product that has a flashpoint ≤ 23°C or a boiling point ≤ 35°C; or any product that is subject to the TDG Act and is being loaded or unloaded at a facility. A release of these products (e.g., condensates, diluents, gasoline) triggers reporting to Environment Canada via the provincial agency. Volume thresholds are aligned with provincial requirements and no further work is required with the initial report. The requirement to report is addressed by complying with the applicable provincial reporting criteria outlined below.

- *If release had/has potential to migrate offsite or affects a natural habitat within a facility (including impact to fish and fish habitat), see Table 6*
- *If release, regardless of volume, has entered water or may cause/is causing/has caused an adverse environmental effect, see Table 6*
- *If historical contamination is discovered, contact Environment as provincial and/or federal reporting may be required*
- *Pipeline right-of-way is considered offsite, outside of facility, off-lease*
- *Record in EnCompass all commodity releases > 1 L and any commodity releases < 1 L that, if left unattended, are likely to exceed the threshold or result in increased risk or trigger regulatory reporting (for recording guidance, see Appendix IV Commentary, Section 2A)*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*
- *The Saskatchewan Ministry of Economy Integrated Resource Information System (IRIS) is located at http://www.saskatchewan.ca/IRIS*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	Within 7 days**	Within 30 days	Within 12 weeks
		(*Region*)			
Federally-regulated pipelines	**[2A.12] In Northwest Territories (…continued)** – uncontrolled spill or escape of a toxic or hazardous substance	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to NWT Chief Safety Officer (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Provincially-regulated pipelines	**[2A.13] In Alberta** any release of unrefined product (i.e., crude diluent condensate, produced water) from a pipeline that: - is outside facility boundaries, - leaves facility boundaries, or - is greater than (>) $2m^3$ and is contained within a facility	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AER (*Region*)	Written Release Report to AER, if requested (Env Dept)	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 2B
Releases/Leaks/Spills – Transport of Dangerous Goods

- *If the release/anticipated release meets a quantity threshold set out in Appendix II - Reportable Quantities of Transported Dangerous Goods, and the release/anticipated release endangers/could endanger public safety, an Emergency Report is required to any local authority responsible for responding to emergencies (e.g., police) at the geographic location of the release.*
- *The reporting threshold for flammable liquids is 30 L or 30 Kg. For all other reportable quantities, see Appendix II - Reportable Quantities of Transported Dangerous Goods.*
- *If goods are transported by an external source and the release meets the criteria listed above, the Company must complete an Emergency Report.*
- *For details of reporting content, see the Transport Canada website (https://www.tc.gc.ca/tdg/clear-part8-379.htm).*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines		
		Immediately	As Soon as Possible	Within 30 days
Federally or provincially-regulated pipelines	**[2B.1] All Provinces and Territories** – Any release that results in any of the following: - death of a person - person sustaining injuries that require immediate medical attention - evacuation of people - closure of a facility where dangerous goods are loaded or unloaded - closure of a road, main railway line or main waterway	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police, verbal to CANUTEC (*Region*)	Release or Anticipated Release Report to CANUTEC, the consignor of the dangerous goods, the Canadian Nuclear Safety Commission (if radioactive materials are involved)	30-Day Followup Report to Director General, Department of Transport (*Region*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[2B.2] In Alberta**	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police, verbal to AB Transportation (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2B.3] In Saskatchewan**	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police, verbal to SK Ministry of Environment (*Region*)	---	Dangerous Occurrence Report to Transport Canada (*Region*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2B.4] In Manitoba**	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police, verbal to MB Sustainable Development (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)

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Table 2B
Releases/Leaks/Spills – Transport of Dangerous Goods

- *If the release/anticipated release meets a quantity threshold set out in Appendix II - Reportable Quantities of Transported Dangerous Goods, and the release/anticipated release endangers/could endanger public safety, an Emergency Report is required to any local authority responsible for responding to emergencies (e.g., police) at the geographic location of the release.*
- *The reporting threshold for flammable liquids is 30 L or 30 Kg. For all other reportable quantities, see Appendix II - Reportable Quantities of Transported Dangerous Goods.*
- *If goods are transported by an external source and the release meets the criteria listed above, the Company must complete an Emergency Report.*
- *For details of reporting content, see the Transport Canada website (https://www.tc.gc.ca/tdg/clear-part8-379.htm).*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines		
		Immediately	As Soon as Possible	Within 30 days
Federally or Provincially-regulated pipelines	**[2B.5] In Ontario**	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police, Verbal to MOECC (via Spills Action Center), Verbal to municipality, Verbal to product owner and Verbal to conservation authority (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2B.6] In Quebec**	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2B.7] In Northwest Territories**	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to local police (*Region*) Spill Report Form to NT-NU 24-hr Spill Report Line (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)

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Table 2C
Releases/Leaks/Spills – Non-Commodities

- *If a release, regardless of volume, has entered water or may cause, is causing or has caused an adverse environmental effect, see Table 6.*
- *Record in EnCompass all non-commodity releases > 1 L, regardless of regulatory thresholds.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines		
		Immediately	**Within 7 Days**	**Within 30 Days**
Federally - regulated pipelines	**[2C.1] All Provinces and Territories** – release of non-commodity product > 1 L	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region/Project*)		Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[2C.2] In Alberta** – release > 30 L of flammable liquid – release of hazardous material in an amount ≥ reportable quantities listed in Appendix II - Reportable Quantities of Transported Dangerous Goods	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AEP, if federally regulated *(Region)* Verbal to AER, if provincially regulated (*Region*)	Written Release Report to AEP (if federally regulated) *(Env Dept)* Written Release Report to AER (if provincially regulated) *(Env Dept)*	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2C.3] In Saskatchewan** – flammable liquid: - release > 500 L onsite - release > 200 L offsite - any amount subsurface – glycols (antifreeze): - release > 100 L onsite - release > 50 L offsite – lubricating oils/hydraulic fluids: - release > 500 L onsite - release > 200 L offsite	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to SK Ministry of Environment (*Region*) Verbal to landowner, as soon as practicable *(Region)*	---	Discharge Report Form to SK Ministry of Environment (*Env Dept*) Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2C.4] In Manitoba** – release > 100 L of flammable liquid	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MB Sustainable Development (*Region*)	Written Spill Report to MB Sustainable Development, if requested *(Env Dept)*	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[2C.5] In Ontario** – any release (includes deposit, leak, emission or addition) of any solid, gas or odour: - into natural environment (i.e., air, land, water) - from, or out of, man-made structure/container (i.e., pipeline) - abnormal in quality or quantity in circumstances	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)

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Table 2C
Releases/Leaks/Spills – Non-Commodities

- *If a release, regardless of volume, has entered water or may cause, is causing or has caused an adverse environmental effect, see Table 6.*
- *Record in EnCompass all non-commodity releases > 1 L, regardless of regulatory thresholds.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines		
		Immediately	**Within 7 Days**	**Within 30 Days**
	EXCEPTION: Releases do not need to be reported if <u>both</u> of the following conditions are met: – release is ≤ 100 L of fluid from the fuel system or other operating system of a motor vehicle; AND – release has not caused, and is not likely to cause, any adverse effects other than those immediately remediated through cleanup/restoration of surfaces prepared for vehicle traffic or to the paved/gravel/sod areas adjacent to those surfaces	Verbal to MOECC (via Spills Action Center), Verbal to affected municipality and owner of spilled pollutant (where the Company does not own pollutant), Verbal to conservation authority (*Region*)		
Federally - regulated pipelines	**[2C.6] In Quebec** – any release of contaminant (including solid, liquid, gas, micro-organism, sound, vibration, rays, heat, odour) or hazardous material	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept, verbal to Environment Canada, verbal to MDDELCC (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)
Federally - regulated pipelines	**[2C.7] In Northwest Territories** – release > 100 L of flammable liquid, waste oil or other vehicle fluids – any release/potential release of any volume that: - is near or in an open waterbody - is near or in a designated sensitive environment or habitat - poses an imminent threat to human health or safety, or to a listed species at risk or its critical habitat	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept (*Region*) Spill Report Form to NT-NU 24-hr Spill Report Line (*Region*)	---	---
Federally- regulated pipelines	**[2C.8] In Northwest Territories (…continued)** – any release on land regulated under land use permits	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal notification to the Gov't of NWT Land Use Inspector within 24 hrs, if release on land regulated under land use permits (*Region*)	---	Detailed report to MVLWB and Gov't of NWT Land Use Inspector, if release on land regulated under land use permits (*Env Dept*)

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Table 2D
Releases/Leaks/Spills – Halocarbons

Chemical substances that include, among other things, halogen (bromine, chlorine and/or fluorine) and carbon. They are used specifically as refrigerants in air-conditioning and refrigeration systems, fire extinguishing agents in fire extinguishing systems, blowing agents in the manufacture of foams and as solvents.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**Within 14 Days**	**Within 30 Days**	**Within 6 Months**
Federally-regulated pipelines	**[2D.1] All Provinces and Territories** – release < 10 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)*	---	Complete Incident Investigation form and other applicable forms in EnCompass (*Region*)	---
Federally-regulated pipelines	**[2D.2] In all Provinces and Territories** – release 10 kg – 100 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)*	---	Complete Incident Investigation form and other applicable forms in EnCompass (*Region*)	Written report to Environment Canada (*Env Dept*) ***Note**: report due by Jan 31 or July 31, whichever comes first*
Federally-regulated pipelines	**[2D.3] In all Provinces and Territories** – release > 100 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept [24 hours] *(Region)* Verbal to Environment Canada [24 hours] (Region)	Written report to Environment Canada (*Env Dept*)	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Federally or Provincially-regulated pipelines	**[2D.4] In Alberta** – release > 10 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)* Verbal to AEP (federally-regulated pipelines), Verbal to AER (provincially-regulated pipelines) (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*) Written Release Report to AER *(Env Dept)*	---

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Table 2D
Releases/Leaks/Spills – Halocarbons

Chemical substances that include, among other things, halogen (bromine, chlorine and/or fluorine) and carbon. They are used specifically as refrigerants in air-conditioning and refrigeration systems, fire extinguishing agents in fire extinguishing systems, blowing agents in the manufacture of foams and as solvents.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**Within 14 Days**	**Within 30 Days**	**Within 6 Months**
Federally - regulated pipelines	**[2D.5] In Saskatchewan** – any quantity that could pose a public safety risk or 100 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)* Verbal to SK Ministry of Environment (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*) Written Spill Report to SK Ministry of Environment (*Env Dept)*	---
Federally - regulated pipelines	**[2D.6] In Manitoba** – release > 10 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)* Verbal to MB Conservation and Water Stewardship *(Region)*	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Federally or Provincially-regulated pipelines	**[2D.7] In Ontario** – release > 100 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)* Verbal to MOECC (via Spills Action Center), Verbal to municipality, Verbal to conservation authority Verbal to Pollutant Owner *(Region)*	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 2D
Releases/Leaks/Spills – Halocarbons

Chemical substances that include, among other things, halogen (bromine, chlorine and/or fluorine) and carbon. They are used specifically as refrigerants in air-conditioning and refrigeration systems, fire extinguishing agents in fire extinguishing systems, blowing agents in the manufacture of foams and as solvents.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	Within 14 Days	Within 30 Days	Within 6 Months
Federally - regulated pipelines	**[2D.8] In Quebec** – release > 25 kg	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Env Dept *(Region)* Verbal to QC MDDELCC *(Region)*	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 3A
People (Occupational Illness/Injury) – Fatality or Serious Injury

- *In the event of an incident that results in a fatality, the local police must be alerted first.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 weeks**
Federally regulated pipelines	**[3A.1] All Provinces and Territories** – A death or serious injury to a person where the death or injury is a result of an occurrence related to the construction, operation or abandonment of a pipeline. Injuries include: a) fracture of any bone, except simple fractures of fingers, toes or nose b) Lacerations that cause severe hemorrhage or nerve, muscle or tendon damage c) loss of sight in one or both eyes d) Internal hemorrhage e) loss of function, amputation, or loss of a body part; f) Injury to an internal organ g) Second and third degree burns or any burn covering more than 5% of the body; h) Verified exposure to infectious substance or injurious radiation i) injury that is likely going to require hospitalization (checked into the hospital) j) Injury to an internal organ k) Unconsciousness (also see Table 3B) ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3A.1)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to TSB [3 hours] (*Region*) Initial submission in OERS to NEB and TSB [3 hours] (*Region*) Notify Regulatory Affairs of OERS submission (*Region*)	---	---	Complete Report, including investigation report, in EnCompass (*Region*) ***Note****: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office* Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)

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Table 3A
People (Occupational Illness/Injury) – Fatality or Serious Injury

- *In the event of an incident that results in a fatality, the local police must be alerted first.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 weeks**
Federally - regulated pipelines	**[3A.2] In all Provinces and Territories** – fatality – loss by an employee of a body member or part thereof, or the complete loss of the usefulness of a body member or a part thereof – the permanent impairment of a body function of an employee; – disabling injury of two or more employees that prevents the employee from reporting for work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the injury or disease occurred, whether or not that subsequent day was a working day for that employee – the fracture of a major bone – the amputation of a body part – the loss of sight in one or both eyes – internal hemorrhage or – third degree burns	Initiate investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to ESDC (*Region*) Complete First Report of Injury (*Region*)	Employers' Report to compensation agency* (H&S Dept) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]*	Hazardous Occurrence Report to ESDC (*H&S Dept*)	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---
Federally or Provincially-regulated pipelines	**[3A.3] In all Provinces and Territories** – disabling injury to one employee that prevents the employee from reporting for work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the injury or disease occurred, whether or not that subsequent day was a working day for that employee	Initiate investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Complete First Report of Injury (*Region*)	Employers' Report to compensation agency* (H&S Dept) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]*	Hazardous Occurrence Report to ESDC (*H&S Dept*)	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---

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Table 3A
People (Occupational Illness/Injury) – Fatality or Serious Injury

- *In the event of an incident that results in a fatality, the local police must be alerted first.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 weeks**
Federally or Provincially-regulated pipelines	**[3A.4] In all Provinces and Territories** – resulted in implementation of rescue, revival or other similar emergency procedure	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to immediate supervisor (injured/ill person) Complete First Report of Injury *(Region)*	---	Hazardous Occurrence Report to ESDC (*H&S Dept*)	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---
Federally or Provincially-regulated pipelines	**[3A.5] In Ontario** – incident occurs in connection with an elevating device (as per TSSA) that results in the death of a person or a critical injury	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to WSIB, verbal to SAC or TSSA, (*Region*) Complete TSSA online Elevating Devices Incident Form (*Region*) Complete First Report of Injury *(Region)*	Written Report to ON Ministry of Labour [2 days] (Region) Employers' Report to WSIB [3 days] *(H&S Dept)*	---	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---

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Table 3A
People (Occupational Illness/Injury) – Fatality or Serious Injury

- *In the event of an incident that results in a fatality, the local police must be alerted first.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 weeks**
Federally or Provincially-regulated pipelines	**[3A.6] In Ontario (…continued)** – person is killed – person is critically injured from any cause in at a workplace – if a person is disabled from performing his or her usual work – occupational illness	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to WSIB verbal to Inspector (*Region*) Complete First Report of Injury *(Region)*	Written Report to ON Ministry of Labour [2 days] (Region) Employers' Report to WSIB [3 days] *(H&S Dept)*	---	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---
Federally - regulated pipelines	**[3A.7] In Quebec** – death of a worker; loss of a limb or a part of a limb, total or partial loss of the use of the limb or a significant physical trauma to a worker – such serious injuries to several workers as probably to prevent them from performing their work for another working day	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to CSST (*Region*) Complete First Report of Injury *(Region)*	Employers' Report to CSST [2 days] *(H&S Dept)*	---	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---

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Table 3A
People (Occupational Illness/Injury) – Fatality or Serious Injury

- *In the event of an incident that results in a fatality, the local police must be alerted first.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 weeks**
Federally - regulated pipelines	**[3A.8] In Northwest Territories** – concussion, major blood loss, serious fracture, or amputation – accident resulting in the death of any employee – an accident of a serious nature involving any employee	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Chief Safety Officer (*Region*) Incident Report to WSCC (*Region*) Complete First Report of Injury *(Region)*	Employers' Report to WSCC [3 days] *(H&S Dept)*	---	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---
Provincially-regulated pipelines	**[3A.9] In Alberta** – injury or accident that results in death – injury or accident that results in a worker's being admitted to the hospital for more than 2 days	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AB Workplace H&S (*Region*) Complete First Report of Injury *(Region)*	Employers' Report to WCB [3 days] *(H&S Dept)*	---	Complete Report, including investigation report, in EnCompass (*Region*) ***Note**: complete fatality reporting requirements in accordance with IMS-01 under guidance of the Ethics & Compliance Office*	---

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Table 3B
People (Occupational Illness/Injury) – Loss of Consciousness/Electric Shock/ Toxic Atmosphere/Oxygen Deficient Atmosphere

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 Weeks**
Federally or Provincially-regulated pipelines	**[3B.1] In all Provinces and Territories** – electric shock, toxic atmosphere or oxygen deficient atmosphere that caused an employee to lose consciousness – implementation of rescue, revival or other similar emergency procedures	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to immediate supervisor (*injured/ill person*) Complete First Report of Injury (*Region*)	Employers' Report to compensation agency* (*H&S Dept*) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]*	Hazardous Occurrence Report to ESDC (*H&S Dept*)	Complete Report, including investigation report, in EnCompass (*Region*)	---
Federally or Provincially-regulated pipelines	**[3B.2] In all Provinces and Territories** A person loses consciousness as a result of an occurrence related to the construction, operation or abandonment of a pipeline	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to immediate supervisor (*injured/ill person*) Verbal to TSB, Verbal to ESDC [3 hours] (*Region*) Initial submission in OERS to NEB and TSB [3 hours] (Region) *Note: If the incident does not relate to a field/regional office employee, then only the* ESDC *needs to be contacted.* Notify Regulatory Affairs of OERS submission (*Region*) Complete First Report of Injury (*Region*)	Employers' Report to compensation agency* (*H&S Dept*) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]* Preliminary Report to TSB [5 days] (*Regulatory Affairs*)	Hazardous Occurrence Report to ESDC (*H&S Dept*)	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)

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Table 3B
People (Occupational Illness/Injury) – Loss of Consciousness/Electric Shock/ Toxic Atmosphere/Oxygen Deficient Atmosphere

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 Weeks**
Federally - regulated pipelines	**[3B.3] In the Northwest Territories** – incidents that results in unconsciousness	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to immediate supervisor (*injured/ill person*) Verbal to Chief Safety Officer (*Region*) Incident Report to WSCC (*Region*) Complete First Report of Injury (*Region*)	Employers' Report to WSCC [3 days] (H&S Dept)	---	Complete Report, including investigation report, in EnCompass (*Region*)	---

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Table 3C
People (Occupational Illness/Injury) – Medical Aid/Modified Work

- *This table pertains to any injury/illness requiring service by a medical practitioner.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 7 Days**	**Within 14 Days**	**Within 30 Business Days**
Federally or Provincially-regulated pipelines	**[3C.1] In all Provinces and Territories** – work-related injury or alleged work related injury to an employee that requires attention by a medical practitioner ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3C.1)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to immediate supervisor (*injured/ill person*) Complete First Report of Injury (*Region*)	Employers' Report to compensation agency* (H&S Dept) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]*	---	---	Complete Report, including investigation report, in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[3C.2] In all Provinces and Territories** – work related injury to an employee, attended by a medical practitioner, where modified work must be considered ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3C.2)*	Initiate Investigation Health Care Providers Assessment of Work Abilities and Limitations (HCPAWAL) Form to Regional Management (*injured or ill party*)	Employers' Report to compensation agency* (H&S Dept) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]*	---	---	---
Federally or Provincially-regulated pipelines	**[3C.3] In all Provinces and Territories** – Recording once a worker is off modified work ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3C.3)*	Initiate Investigation Verbal to H&S and Benefits Department (*Region*) Verbal to compensation agency* (*H&S Dept*) **AB – WCB* **MB – WCB* **SK – WCB* **ON – WSIB* **QC – CSST* **NWT – WSCC*	---	---	---	---

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Table 3C
People (Occupational Illness/Injury) – Medical Aid/Modified Work

- *This table pertains to any injury/illness requiring service by a medical practitioner.*
- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 2-5 Days**	**Within 7 Days**	**Within 14 Days**	**Within 30 Business Days**
Federally or Provincially-regulated pipelines	**[3C.4] In all Provinces and Territories** – disabling injury to one employee that prevents the employee from reporting for work or from effectively performing all the duties connected with the employee's regular work on any day subsequent to the day on which the injury or disease occurred, whether or not that subsequent day was a working day for that employee	Initiate investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Complete First Report of Injury (*Region*)	Employers' Report to compensation agency* (H&S Dept) **AB – WCB [3 days]* **MB – WCB [5 days]* **SK – WCB [5 days]* **ON – WSIB [3 days]* **QC – CSST [2 days]* **NWT – WSCC [3 days]*	---	Hazardous Occurrence Report to ESDC (*H&S Dept*)	Complete Report, including investigation report, in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[3C.5] In Ontario** – 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 and requires services by a medical practitioner ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3C.5)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*injured or ill person*) Verbal to TSSA or SAC (*Region*) Complete TSSA online Elevating Devices Incident Form (*Region*) Complete First Report of Injury (*Region*)	Employers' Report to WSIB [3 days] (H&S Dept)	Written Report to TSSA (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*)

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Table 3D
People (Occupational Illness/Injury) – First Aid

- This table pertains to any injury requiring first aid treatment but requires no medical attention provided by a medical practitioner.
- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines		
		Immediately	**Within 7 Days**	**Within 30 Business Days**
Federally or Provincially-regulated pipelines	**[3D.1] In all Provinces and Territories** – first aid not requiring outside medical attention ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3D.1)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*injured or ill person*) Complete First Report of Injury – First aid rendered by Healthcare professional (*Region*)	---	---
Federally or Provincially-regulated pipelines	**[3D.2] In all Provinces and Territories** Pipeline incidents that result in: – first aid requiring outside medical attention (1 time treatment with no prescription or medical intervention such as a cast) If this injury turns into a medical aid and requires more than one time treatment or prescription, see Table 3C ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3D.2)*	Initiate investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*injured or ill person*) Complete First Report of Injury – First aid rendered by Healthcare professional (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*)

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Table 3D
People (Occupational Illness/Injury) – First Aid

- This table pertains to any injury requiring first aid treatment but requires no medical attention provided by a medical practitioner.
- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines		
		Immediately	**Within 7 Days**	**Within 30 Business Days**
Federally or Provincially-regulated pipelines	**[3D.3] In Ontario** If an incident occurs that is in connection with an elevating device (as per TSSA), but does not require medical attention ***NOTE***: *For additional guidance, see Appendix IV – Commentary (3D.3)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to TSSA or SAC (*Region*) Complete First Report of Injury – First aid rendered by Healthcare professional (*Region*)	Complete TSSA online Elevating Devices Incident Form, if applicable (*Region*)	Complete Report, including investigation report, in EnCompass (*Region*)

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
Federally - regulated pipelines	**[4A.1] In all Provinces and Territories** – operation, for any amount of time, beyond the criteria for which the pipeline was designed and/or the operation of the pipeline beyond criteria imposed by the NEB to mitigate a condition of the pipeline. This includes operation of a pipeline: a) >110% of the CSA maximum operating pressure (MOP) b) >110% of self-imposed maximum allowable operating pressure (MAOP) c) > 100% of regulator-imposed restriction ***NOTE**: For additional guidance, see Appendix IV – Commentary (4A.1)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] *(CCO*)* Initial submission in OERS to NEB and TSB [Within 24 hours] (*CCO Engineering**) Notify Regulatory Affairs of OERS submission *(CCO*)* ** CCO, in cooperation with Pipeline Integrity and Facilities Integrity, is responsible for communicating overpressures to Regional Operations*	---	---	Complete Report, including Investigation Report, in EnCompass (*CCO*) Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)
Federally - regulated pipelines	**[4A.2] In all Provinces and Territories** – any events that fall under the definition of 'operation of pipeline beyond its design limits' include, but are not limited to: a) operation of pipeline at a temperature greater than the design temperature [NOTE: Prior to reporting, consult with Regulatory Affairs for interpretation and guidance] b) slope movements that exceed what was predicted at the design stage or were not predicted in the design stage [NOTE: Prior to reporting, consult with Regulatory Affairs for interpretation and guidance] c) unintended exposures of pipelines including in waterbodies and on land (NOTE: 'waterbodies' is interpreted to include river, creek, stream, lake, canal, reservoir, ocean and all classes of wetlands [i.e., swamp, marsh, bog, fen or other land that is covered by shallow water seasonally or permanently, including land where the water table is located at or close to the surface]) d) the introduction of an inappropriate product into the pipeline (e.g., sour product in a line or facility designed for sweet product; any exceedance of product chemical properties as	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] *(Temperature – CCO*)* *(Slope movement – Region)* *(Exposure – Region)* *(Inappropriate Product – PQ)* **CCO will also inform Thermal Management Group via email notification* Initial submission in OERS to NEB and TSB [24 hours] *(Temperature – Regulatory Affairs)*	---	---	Complete Report, including Investigation Report, in EnCompass *(Temperature - CCO)* *(Slope movement – Region)* *(Exposure – Region)* *(Inappropriate Product – PQ)* Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
	defined in the tariff limits) [NOTE: Prior to reporting, consult with Regulatory Affairs for interpretation and guidance] ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4A.2)*	*(Slope movement – Region)* *(Exposure – Region)* *(Inappropriate Product – Regulatory Affairs)* Notify Regulatory Affairs of OERS submission for slope movements and exposures *(Region)*				

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
Federally regulated pipelines	**[4A.3] In all Provinces and Territories** – unauthorized activities under the NEB Act and the NEB Damage Prevention Regulations-Authorizations, including: a) Ground Disturbance – unauthorized ground disturbance activities in the prescribed area b) Encroachment – unauthorized construction of a facility across, on, along or under a pipeline (including ROW) and includes construction of structures or facilities (e.g., swimming pools, skating rinks, sheds) on a ROW, as well as stockpiling of materials (e.g., sand, soil) c) Vehicle Crossings – unauthorized operation of a vehicle or mobile equipment across or on a ROW outside the travelled portion of a highway or public road (includes operation of heavy equipment or trucks across the ROW) Consult with Damage Prevention and Regulatory Affairs to determine whether or not to report. – All damage to pipe caused or identified during: - construction of a facility across, on, along or under a pipeline - operation, maintenance or removal of a facility - an activity that caused a ground disturbance within the prescribed area; OR - operation of vehicles or mobile equipment across the pipeline *Examples of reportable incidents include impacts that are indicative of contact with the pipe which may include rocks, equipment, piles, shoring, grinders or other such objects that come in contact with the pipe and damage the pipe itself* ***NOTE**: For additional guidance, see Appendix IV – Commentary (4A.3)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to NEB and TSB [24 hours] (*Damage Prevention, Region if in Ontario*) **Reporting to occur following field confirmation and in discussion with Damage Prevention.* Notify Regulatory Affairs of OERS submission (*Damage Prevention*)	---	---	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB requirements and NEB Damage Prevention Regulations (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)
Federally regulated pipelines	**[4A.4] In all Provinces and Territories** – unauthorized third party activity within the prescribed area that does not cause property damage or pose a structural threat, but poses a threat to the safe operation of the pipeline including: a) unauthorized ground disturbance or activity within the	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day]	Incident Investigation Form (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*)	Final submission in OERS to NEB (*Regulatory Affairs*)

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
	prescribed area (30 m from each side of the centerline of the pipe) that involves: ▪ soil being disturbed or displaced to a depth of 30 cm or more ▪ any reduction of the earth cover over the pipeline ▪ cultivation to depths of 45 cm or more b) unauthorized construction of a facility on, along or under a pipe, including construction or structures or stockpiling on the ROW c) unauthorized operation of a vehicle or mobile equipment across the ROW, outside the travelled portion of a highway or public road ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4A.4)*	(*Region*) Initial submission in OERS to NEB and TSB [24 hours] (*Damage Prevention*) **Reporting to occur following field confirmation and in discussion with Damage Prevention* Notify Regulatory Affairs of OERS submission *(Region)*			Update initial submission in OERS to satisfy TSB and NEB Damage Prevention Regulation requirements (*Regulatory Affairs*)	
Federally regulated pipelines	**[4A.5] In all Provinces and Territories** – Geotechnical, hydraulic or environmental activity poses a threat to the safe operation of the pipeline. *Examples:* – *Geotechnical activity- landslide, earthquake, blasting, mining, excavation, frac* – *Hydraulic activity – flooding, or high volume of precipitation, reroute of water (dams)* – *Environmental activity – hurricane, tornado, lightning storm, etc.* ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4A.5)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to TSB [24 hours] (*Region*) Notify Regulatory Affairs of OERS submission *(Region)*	---	---	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	---
Federally - regulated pipelines	**[4A.6] In all Provinces and Territories** – Operation of a portion of the pipeline is interrupted as a result of a situation or condition that poses a threat to any person, property or environment	Initiate Investigation Entry and verification of event in EnCompass	---	---	Complete Report, including investigation report, in EnCompass (*Region*)	---

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
	Examples may include: – *electrical wire cut during construction/maintenance activities, resulting in line shutdown* – *disruption by shipper* ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4A.6)*	(completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Regional On-call (CCO) Initial submission in OERS to TSB [24 hours] (*Region*) Notify Regulatory Affairs of OERS submission *(Region)*			Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	
Federally regulated pipelines	**[4A.7] In all Provinces and Territories** – The pipeline restricts the safe operation of any mode of transportation ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4A.7)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to TSB [24 hours] (*Region*) Notify Regulatory Affairs of OERS submission *(Region)*	---	---	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	---
Federally or Provincially-regulated pipelines	**[4A.8] In Ontario** – any activity in the immediate vicinity of the pipeline which poses a threat to the structural integrity of the pipeline	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook,	---	---	Complete Report, including investigation report, in EnCompass (*Region*)	---

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
	NOTE: *For additional guidance, see Appendix IV – Commentary (4A.8)*	event and impact forms) [by end of next business day] (*Region*) Verbal to TSSA* (*Region*) ** Notify TSSA only if there is a concern with repeat offenders or excavation displaying blatant disregard for the safety of the pipeline facilities*				
Federally or Provincially-regulated pipelines	**[4A.9] In Ontario (…continued)** – pipeline strikes where the strike has caused evacuation, injuries or media attention	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MOECC (via Spills Action Center) (*Region*)	---	---	Complete Report, including investigation report, in EnCompass (*Region*)	---
Provincially-regulated pipelines	**[4A.10] In Alberta** – contact with a pipeline during any ground disturbance that results in: (i) puncture, crack in the pipeline, (ii) scratch, gouge, flattening or dent on the surface of the pipeline, or (iii) damage to its protective coating that compromises the functionality of the coating, with the exception of minor damages that may occur during final hand excavation and external cleaning ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4A.10)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AER (*Region*)	Written Report to AER if requested, Incident Investigation Form (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*)	---
Provincially-	**[4A.11] In Ontario**	Initiate Investigation	---	Written Report to	Complete Report,	---

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Table 4A
Property Damage – Structural Integrity or Structural Threat to the Pipeline or Operating beyond Design Limits

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
regulated pipelines	– all other pipeline strikes that do not meet the above criteria	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*)		TSSA (*Region*)	including investigation report, in EnCompass (*Region*)	

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Table 4B
Property Damage – Fire and Explosions

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual. See Terms & Definitions for definition of "Fire" before reporting.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines					
		Immediately	Within 3-5 Days	Within 7 Days	Within 14 Days	Within 30 Days	Within 12 Weeks
Federally - regulated pipelines	**[4B.1] In all Provinces and Territories** Any unintended fire or explosion that is caused by, or impacts, the construction, operation or abandonment of a pipeline. Events that fall under this definition include, but are not limited to: - battery explosion - fire caused by an arc, or a cable fault, or a breakdown of any component of the uninterruptible power system (UPS) or the back-up generator - wildland or forest fire that damages pipeline infrastructure or impact the construction, operations or abandonment of a pipeline - small welding or housekeeping related fire ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4B.1)*	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to TSB [3 hours] (*Region*) Initial submission in OERS to NEB and TSB [3 hours] (*Region*) Notify Regulatory Affairs of OERS submission (*Region*)	---	---	Hazardous Occurrence Report to ESDC (*H&S*)	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)

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Table 4B
Property Damage – Fire and Explosions

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual. See Terms & Definitions for definition of "Fire" before reporting.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines					
		Immediately	Within 3-5 Days	Within 7 Days	Within 14 Days	Within 30 Days	Within 12 Weeks
Federally - regulated pipelines	**[4B.2] In all Provinces and Territories** – unintended fire or explosion has occurred that poses a threat to any person, property or environment – incidents involving unintended fires or explosions and includes but is not limited to: (i) company vehicles and equipment (ii) grass and vegetation on company property or ROW (iii) welding, cutting, grinding or pre-heating (tiger torch) process that unintentionally ignites another material (iv) fires resulting from contact with piping or electrical equipment or conduit	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to NEB and TSB [24 hours] (*Region*) Notify Pipeline Compliance of OERS submission (*Region*)	---	---	---	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB requirements (*Pipeline Compliance*)	Final Submission in OERS to NEB (*Pipeline Compliance*)
Federally or Provincially-regulated pipelines	**[4B.3] In Ontario** – fire, that may adversely affect the safe operation of the elevating device (as per TSSA)	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MOECC (via Spills Action Center) (*Region*)	---	TSSA online Elevating Devices Incident Form (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*)	---
Federally or Provincially-regulated pipelines	**[4B.4] In Ontario (…continued)** – unexpected explosion and/or fire on a construction project	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day]	---	---	---	Complete Report, including investigation report, in EnCompass (*Region*)	

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Table 4B
Property Damage – Fire and Explosions

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual. See Terms & Definitions for definition of "Fire" before reporting.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines					
		Immediately	**Within 3-5 Days**	**Within 7 Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 Weeks**
		(*Region*) Verbal to Immediate Supervisor (*individual*) Verbal to H&S (*Region*)					
Provincially-regulated pipelines	**[4B.5] In Alberta** – unplanned or uncontrolled explosion, fire or flood that causes a serious injury or that has the potential of causing a serious injury	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AB Workplace H&S (*Region*)	Employers' Report to WCB [3 days] (*Region*)	---	---	Complete Report, including investigation report, in EnCompass (*Region*)	

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Table 4C
Property Damage – Lifting/Elevating Devices and Other Property Damage

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 2 Days	Within 7 Days	Within 14 Days	Within 30 Business Days
Federally - regulated pipelines	**[4C.1] In all Provinces and Territories** – damage to an elevating device that renders it unserviceable or a free fall of an elevating device (in accordance with TSSA)	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to ESDC (*Region*)	---	---	Hazardous Occurrence Report to ESDC (*H&S*)	Complete Report, including investigation report, in EnCompass (*Region*)
Federally - regulated pipelines	**[4C.2] In Ontario** – flood or rush of water, failure of any equipment, machine, device, article or thing, cave-in, subsidence, rock burst or other incident that occurs at a project site	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*individual*)	Notice in Writing to ON OH&S Director (*Region*)	---	---	Complete Report, including investigation report, in EnCompass (*Region*)
Federally - regulated pipelines	**[4C.3] In Ontario (…continued)** – flood, or other significant exposure to water, vandalism, impact or lightning strike that may adversely affect the safe operation of the elevating device (in accordance with TSSA)	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MOECC (via Spills Action Center) (*Region*)	---	TSSA online Elevating Devices Incident Form (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*)
Federally - regulated pipelines	**[4C.4] In Ontario (…continued)** – if a mechanic discovers a condition that constitutes an immediate hazard – if equipment condition constitutes an immediate hazard	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*individual*) Verbal to Director of TSSA (*Region*)	---	Written Report to TSSA (*Region*)	---	---

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Table 4C
Property Damage – Lifting/Elevating Devices and Other Property Damage

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 2 Days	Within 7 Days	Within 14 Days	Within 30 Business Days
Federally - regulated pipelines	**[4C.5] In Quebec** – material damage valued at ≥ $50,000	Initiate Investigation Verbal to Immediate Supervisor (*individual*) Incident Report to QC OH&S Commission (*Region*)	---	---	---	Complete Report, including investigation report, in EnCompass (*Region*)
Federally - regulated pipelines	**[4C.6] In the Northwest Territories** – major structural failure or collapse of a building, bridge, tower, crane, structure, scaffold, temporary construction support system or excavation – accidental contact with an energized electrical conductor – premature or accidental detonation of explosives – incident involving heavy equipment	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*individual*) Verbal to Chief Safety Officer (NWT) (*Region*)	---	---	---	Complete Report, including investigation report, in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[4C.7] In all Provinces and Territories** – damage to pipeline, tanks, pumps, switchgear motors; oil escape and oil degradation of known cause > $1,000 – damage to buildings, work and office equipment, facilities under construction and other > $1,000 – liability damage to others on third party property through bodily injury, property damage, escape of oil, or hazardous substances – property damage to company aircraft or injury/property damage to others caused by company aircraft/vehicle	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*individual*)	---	---	---	Complete Report, including investigation report, in EnCompass (*Region*)

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Table 4C
Property Damage – Lifting/Elevating Devices and Other Property Damage

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 2 Days	Within 7 Days	Within 14 Days	Within 30 Business Days
Provincially-regulated pipelines	**[4C.8] In Alberta** – collapse or upset of a crane, derrick or hoist – failure of a lifting device – collapse or failure of a building component or a structure necessary for its structural integrity	Initiate Investigation Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*individual*) Verbal to AB Workplace H&S Director of Inspection (*Region*)	---	---	---	Complete Report, including investigation report, in EnCompass (*Region*)

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Table 4D
Property Damage – Motor Vehicle Incident (MVI) / Damage

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines	
		Immediately	**Within 30 Business Days**
Federally or Provincially-regulated pipelines	**[4D.1] In all Provinces and Territories** – incident involving a company-owned, leased or rented vehicle that results when in operation: - any vehicle damage - any property damage or bodily injury ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4D.1)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*Individual*) Verbal to SGI (Sask) or MPI (MB) (*Region*)	Complete Report, including investigation report, in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[4D.2] In all Provinces and Territories** – incident involving a company-owned, leased, or rented vehicle that results when properly parked: - any vehicle damage ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4D.2)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*Individual*) Verbal to SGI (Sask) or MPI (MB) (*Region*)	Complete Report, including investigation report, in EnCompass (*Region*)

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Table 4E
Property Damage – Nuclear Densitometer Damage/Explosives Near Densitometer

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines	
		Immediately	Within 21 Days
Federally or Provincially-regulated pipelines	**[4E.1] In all Provinces and Territories** – incident involving a nuclear densitometer that results in: - damage to nuclear densitometer components by physical contact (i.e., hit by equipment, etc.) - fall/collision/crushing of a device - inoperable shutters or device malfunction - unshielded sources - loss or theft of a device - fire or explosion in an area of the nuclear densitometer that may damage any of its components - alteration of the densitometer's physical installation on the pipe in such a way that it is no longer properly mounted on the pipe	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Canadian Nuclear Safety Commission Duty Officer, Verbal to local authorities in event of loss or theft of device, Verbal to Radiation Safety Officer (*Region*)	Nuclear Densitometer Incident Report to Canadian Nuclear Safety Commission (*Radiation Safety Officer*)

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Table 4F
Property Damage – Pressure Vessels/Boilers/Heaters/Heat Exchangers

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines	
		Immediately	Within 30 Business Days
Federally - regulated pipelines	**[4F.1] In all Provinces and Territories** – damage to a boiler or pressure vessel that results in a fire or the rupture of the boiler or pressure vessel ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.1)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to ESDC (*Region*)	Complete Report, including investigation report, in EnCompass (*Region*)
Federally or Provincially-regulated pipelines	**[4F.2] In Alberta** – accidents involving pressure equipment (i.e., boiler, pressure vessel, pressure piping system, fitting, thermal liquid heating system, etc.) that result in damage to property, or injury/death to a person – accidents not caused by pressure equipment but having some impact on pressure equipment ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.2)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to ABSA (*Region*) Complete ABSA Accident Report Form AB-97 (*Region*)	Complete Report, including investigation report, in EnCompass (*Region*)
Federally - regulated pipelines	**[4F.3] In Saskatchewan** - explosion, fire, rupture, overheating of a boiler of pressure vessel that results in damage to property, or injury/death to a person ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.3)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to the TSASK Chief Inspector (*Region)*	Complete Report, including investigation report, in EnCompass (*Region*)
Federally - regulated pipelines	**[4F.4] In Manitoba** - explosion in or in connection with a boiler or pressure vessel ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.4)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to the Minister (via The Office of the Fire Commissioner) *(Region)* Written report for the Minister within 24hours *(Region)*	Complete Report, including investigation report, in EnCompass *(Region)*
Federally or Provincially-regulated pipelines	**[4F.5] In Ontario** - explosion or rupture of a boiler, pressure vessel, fitting or piping, handling hydrocarbons, that results in injury/death to a person or property damage ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.5)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to TSSA (via SAC) *(Region)* Written report for the minister within 48hours *(Region)*	Complete Report, including investigation report, in EnCompass *(Region)*

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Table 4F
Property Damage – Pressure Vessels/Boilers/Heaters/Heat Exchangers

- The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.
- Regulatory reporting requirements supersede incident completion timelines in IMS-01.

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines	
		Immediately	Within 30 Business Days
Federally or Provincially-regulated pipelines	**[4F.6] In Quebec** - accident, explosion, break or damage to a pressure vessel or its installation ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.6)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to the Quebec Chief Inspector (via Régie du bâtiment du Québec) *(Region)*	Complete report, including investigation Report, in EnCompass *(Region)*
Federally or Provincially-regulated pipelines	**[4F.7] In Northwest Territories** - explosion or rupture of a boiler, pressure vessel or plant; or an accident out of its operation or use that causes injury or death to a person or damage to property ***NOTE***: *For additional guidance, see Appendix IV – Commentary (4F.7)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to the Chief Inspector (via Department of Public Works and Services) *(Region)*	Complete Report, including investigation report, in EnCompass *(Region)*

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Table 4G
Property Damage – Alberta Transmission Facilities

- The following reporting requirements apply to the following power transmission facilities located in Alberta, Canada:

- *Leismer Chard Substation - 144 kV equipment up to transformer secondary windings, and associated protection and control and communication devices to the high voltage equipment*
- *Hardisty Clipper Substation - 138 kV equipment up to transformer secondary windings, and associated protection and control and communication devices to the high voltage equipment*
- *Edmonton South Terminal Baseline Substation - 430-TX 2 Transformer*
- *HRT Express 329S Substation - 138 kV equipment up to transformer secondary windings, and associated protection and control and communication devices to the high voltage equipment*
- *Express Youngstown Substation - 69 kV equipment up to transformer secondary windings, and associated protection and control and communication devices to the high voltage equipment*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines	
		Immediately	Within 5 Business Days
Provincially-regulated	**[4G.1] Alberta** Notifiable Circumstance - an unplanned condition or a condition that differs from planned AIES conditions and may include: a) any change or potential change in the status of a substation that could affect the reliability of the AIES, including a change in the status of substation equipment, protection systems, outage duration, remedial action schemes or communication capability b) events or circumstances relating to company facilities that could affect the reliability of the AIES, including adverse weather conditions, fires or bomb threats c) forced outages of substation equipment that could affect the reliability of the AIES	Verbal to Energy Management (*Region*) Verbal to Enterprise Security (*Energy Management*) Verbal to AESO (*Energy Management*)	---
Provincially-regulated	**[4G.2] Alberta (…continued)** Reportable Event - any of the following events (theft that does not result in degradation of normal operation of a company transmission facility is not a Reportable Event): a) damage to, or destruction of, a transmission facility that results in an unexpected sustained outage (i.e., one minute or more) of any combination of 3 or more of the following: - transmission lines energized at greater than 25kV; or - transformers with at least 2 terminals energized at greater than 25kV b) unexpected loss, contrary to design, of any combination caused by a common disturbance (excluding successful automatic reclosing) of 3 or more of the following: - transmission lines energized at greater than 25kV; or - transformers with at least 2 terminals energized at greater than 25 kV c) automatic firm load shedding (via an automatic under-voltage or under-frequency load shedding scheme, or remedial action scheme) that occurs as part of the ISO under-voltage load shed program or under-frequency load shedding program d) failure or mis-operation of a remedial action scheme or protection system on the transmission system that impacts the transmission system, including the failure of a teleprotection communication channel (a) where there is no equivalent backup teleprotection communication channel, and where the failure lasts for more than 10 consecutive minutes or (b) where there is an equivalent backup teleprotection communication channel, and where the failure lasts for more than 24 consecutive hours	Verbal to Energy Management (*Region*) Verbal to Enterprise Security (*Energy Management*)	Complete AESO Event Reporting Form and submit report to AESO (*Energy Management*)

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Table 5
Rescue / Near Misses / Suspension of Consent

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	**Within 10 Business Days**	**Within 14 Days**	**Within 30 Days**	**Within 12 Weeks**
Federally - regulated pipelines	**[5.1] In all Provinces and Territories** – resulted in the rescue of person(s) or implementation of other similar emergency procedure	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*injured/ill person*)	Complete Report, including investigation report, in EnCompass (*Region*) HVLE in EnCompass *(Region)*	Hazardous Occurrence Report to ESDC (*H&S*)	Complete Report, including investigation report, in EnCompass (*Region*)	Final Submission in OERS to NEB *(Regulatory Affairs)*
Federally or Provincially-regulated pipelines	**[5.2] In all Provinces and Territories** – incident that had the potential to result in a serious incident (i.e., property damage, bodily injury).	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor (*injured/ill person*)	Complete Report, including investigation report, in EnCompass (*Region*) HVLE in EnCompass *(Region)*	---	Complete Report, including investigation report, in EnCompass (*Region*)	---
Federally regulated pipelines	**[5.3] In all Provinces and Territories** If the company suspends consent previously given in accordance with the Damage Prevention Regulations Authorizations in regards to third party crossing or proximity agreements, it must notify the NEB. Suspension can be due to: a) the person carrying out the construction of a facility does not comply with the technical details set out in the persons agreement with the company or the instruction of authorized field personnel regarding procedures to be followed while carrying out construction in the vicinity of a pipe; OR b) the person engaging in an activity that causes the ground disturbance does not comply with the technical details set out in the persons agreement with the company; OR c) work practices might impair pipeline safety or security	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Land Services*) Initial submission in OERS to NEB and TSB [24 hours] (*Region*) **Reporting to occur following field confirmation and in discussion with Land Services* Notification to Regulatory Affairs of OERS submission (*Region*)	Incident Investigation Form (*Region*)	---	Complete Report, including investigation report, in EnCompass (*Region*) Update initial submission in OERS to satisfy TSB and NEB Damage Prevention Regulation requirements (*Regulatory Affairs*)	Final submission in OERS to NEB (*Regulatory Affairs*)

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Table 5
Rescue / Near Misses / Suspension of Consent

- *The following reporting requirements relate to employees and contract workers deemed by regional management to be an extension of the crew or designate for the company. For contractor personnel reporting requirements, see the LP/MP Safety Manual.*
- *Regulatory reporting requirements supersede incident completion timelines in IMS-01.*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines				
		Immediately	Within 10 Business Days	Within 14 Days	Within 30 Days	Within 12 Weeks
Federally regulated pipelines	**[5.4] In all Provinces and Territories** – Geotechnical, hydraulic or environmental activity poses a threat to the safe operation of the pipeline. **Note**: *"a threat to the safe operation" should be considered as an activity that is being actively monitored or immediately threatening the integrity of the pipeline.* *Examples:* – *Geotechnical activity- landslide, earthquake, blasting, mining, excavation, frac.* – *Hydraulic activity – flooding, or high volume of precipitation, reroute of water (dams)* – *Environmental activity – hurricane, tornado, lightning storm, etc.* ***NOTE***: *For additional guidance, see Appendix IV – Commentary (5.4)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Initial submission in OERS to NEB and TSB [24 hours] (*Region*) Notify Regulatory Affairs of OERS submission (*Region*)	Incident Investigation Form (*Region*)	---	---	---

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Table 6
Environment- Adverse Environmental Effects or Environmental Non-Compliance

- In the event of an adverse environmental effect, review Table 6 in its entirety as the effect may result in multi-jurisdictional notifications.
- The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**As Soon as Feasible After Occurrence**	**Within 24 Hours**	**Within 12 Weeks**
Federally - regulated pipelines	**[6.1] In All Provinces and Territories – Significant Adverse Effects 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. *Examples may include:* - *release of a toxic substance (as defined in the OPR) into a sensitive environment (i.e., watercourse, wetland, etc.) or into a designated national/provincial area (i.e., national park, provincial park, wildlife refuge, etc.)* - *'Frac-outs' released directly into a watercourse during horizontal directional drilling operations* - *release of a toxic substance in an area where there is a pathway to a receptor nearby (i.e., groundwater or surface water is used for drinking water, irrigation water, consumed by livestock, etc.)* - *destruction of critical habitat, as that term is defined in the Species at Risk Act*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region/Project*) Verbal to TSB Reporting Hotline [(819) 997-7887] [as soon as possible, no later than 3 hours] (*Region*) Verbal to Env Dept (*Region/Project*) ***Note**: Contact Environment Dept if assistance is required when determining significant adverse effect.* *Certain adverse environmental effects trigger reporting to Provincial or Federal regulatory agencies (see below for criteria). If the adverse effect meets the reporting threshold, Environment must report the event to the applicable regulatory authority.*	Verbal to Regulatory Affairs and Legal (*Env Dept*)	Initial Submission in OERS to NEB (*Regulatory Affairs*)	Final Submission in OERS to NEB (*Regulatory Affairs*)

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Table 6
Environment- Adverse Environmental Effects or Environmental Non-Compliance

- *In the event of an adverse environmental effect, review Table 6 in its entirety as the effect may result in multi-jurisdictional notifications.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**As Soon as Feasible After Occurrence**	**Within 24 Hours**	**Within 12 Weeks**
Federally or Provincially-regulated pipelines	**[6.2] In All Provinces and Territories – Adverse Environmental Effects** – situation or activity that may have created, or has the potential to create, an **adverse environmental** effect including but not limited to the following: - unauthorized contaminants in air, soil, or water have crossed outside of Enbridge facility boundaries - any contaminated soil encountered on the ROW (for more information on this reporting, see *Book 8: Environment, 01-02-06 Contaminated Soil Identification, Temporary Storage & Disposal*) - identification of previously unknown contaminated surface water or groundwater - soil erosion into a wetland or water body - fish habitat has been altered, harmed or destroyed - birds, fish, or other animals have been injured or killed (not including Motor Vehicle Incidents) - disturbance or damage to Species at Risk/Endangered Species or their habitat - public complaints relating to an environmental conditions (noise, odor, water, weeds etc.) that is originating from company activities or facilities - degradation or destruction of productive soil	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region/Project*) Verbal to Env Dept (*Region/Project*) ***Note**: Contact Environment Dept if assistance is required when determining adverse effect* ***Note**: Certain adverse environmental effects trigger reporting to Provincial or Federal regulatory agencies. If the adverse effect meets the reporting threshold, Environment must report the event to the applicable regulatory authority.*	Verbal or written report to Agency*, as appropriate (*Env Dept*) ** AB – NEB and AEP (federally-regulated pipelines)* ** AB – AER (provincially-regulated pipelines)* ** SK – SK Ministry of Environment* ** MB – MB Conservation and Water Stewardship* ** ON – MOECC (via Spills Action Center)* ** QC – MDDELCC* ** NWT – NT-NU 24-hr Spill Report Line* **Environment Canada* Verbal to NEB, if applicable (*Regulatory Affairs*)	---	---

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Table 6
Environment- Adverse Environmental Effects or Environmental Non-Compliance

- In the event of an adverse environmental effect, review Table 6 in its entirety as the effect may result in multi-jurisdictional notifications.
- The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	As Soon as Feasible After Occurrence	Within 24 Hours	Within 12 Weeks
Federally or Provincially-regulated pipelines	**[6.3] In All Provinces and Territories – Impacts to Fish and Fish Habitat** – incident that either results in: (a) unauthorized serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery; or (b) unauthorized deposit of a deleterious substance in water frequented by fish – there is a serious and imminent danger of the following occurring: (a) unauthorized serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery; or (b) unauthorized deposit of a deleterious substance in water frequented by fish or in any place under any conditions where the deleterious substance may enter any such water	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region/Project*) Verbal to Env Dept (*Region*)	If criteria (a), verbal to Fisheries and Oceans Canada (federally- and provincially-regulated pipelines) and NEB (federally-regulated pipeline only) *(Env Dept)* If criteria (b), verbal to Environment Canada (federally- and provincially-regulated pipelines) and NEB (federally-regulated pipeline only) *(Env Dept)* ***Note:*** *The Fisheries Act requires notification of criteria (a) and (b) "without delay" rather than "as soon as feasible".* Written Report to Fisheries and Oceans Canada or Environment Canada, as soon as feasible (*Env Dept*) Entry and verification of event in EnCompass and send internal notification (*Region/Project*)	---	---

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Table 6
Environment- Adverse Environmental Effects or Environmental Non-Compliance

- *In the event of an adverse environmental effect, review Table 6 in its entirety as the effect may result in multi-jurisdictional notifications.*
- *The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers*

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	**As Soon as Feasible After Occurrence**	**Within 24 Hours**	**Within 12 Weeks**
Federally or Provincially-regulated pipelines	**[6.4] In All Provinces and Territories – Environmental Non-Compliance** – situation or activity conducted that is potentially not in compliance with environmental regulations or permits, a project-specific Environmental Protection Plan, and/or environmental commitments communicated to an external stakeholder or regulator. Examples include, but are not limited to: - water withdrawals that exceed approved diversion license quantities - diversion of water for hydrostatic testing without required notifications/licenses - air emissions exceeding permit requirements - operating facility equipment not in accordance with air permits - proceeding with projects or operations without notifying regulatory agencies - adding or modifying facility infrastructure without amending environmental permits or approvals - clearing vegetation outside of permitted areas - conducting operations not in accordance with land use permits - inspections by regulatory agencies with negative findings (oral or written) - unauthorized work within threatened or endangered species habitat	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region/Project*) Verbal to Env Dept (*Region/Project*) ***Note**: Contact the Environment Dept if assistance is required when determining non-compliance. The Environment Dept will notify applicable Federal and Provincial environmental agencies once the situation has been assessed*	Verbal or written report to Agency*, as appropriate (*Env Dept*) ** AB – AEP (federally-regulated pipelines)* ** AB – AER (provincially-regulated pipelines)* ** SK – SK Ministry of Environment* ** MB – MB Conservation and Water Stewardship* ** ON – MOECC (via Spills Action Center)* ** QC – MDDELCC* ** NWT – NT-NU 24-hr Spill Report Line* **Environment Canada*	---	---
Federally-regulated pipelines	**[6.5] In Ontario** – Any discharge (deposit, leak, emission or addition) of any solid, liquid, gas, odour, heat, sound, vibration or radiation, to the air, land or water that has caused or may cause an adverse effect	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to MOECC (via Spills Action Center), (*Region*)	---	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 6
Environment- Adverse Environmental Effects or Environmental Non-Compliance

- In the event of an adverse environmental effect, review Table 6 in its entirety as the effect may result in multi-jurisdictional notifications.
- The NEB Online Event Reporting System (OERS) is located at https://apps.neb-one.gc.ca/ers

Jurisdiction	Reporting Criteria	Reporting Requirements & Deadlines			
		Immediately	As Soon as Feasible After Occurrence	Within 24 Hours	Within 12 Weeks
Provincially-regulated pipelines	**[6.6] In Alberta** – release to surface during a pipeline horizontal directional drill ("terrestrial frac out") and **ALL** of the following criteria are met: a) release location is > 50 m from a waterbody b) release volume is < 2 m^3 c) release is contained on the ROW d) released materials – are comprised of bentonite and freshwater and non-toxic additives, products or chemicals – do not contain additives, products, or chemicals that do not have criteria listed in Alberta Tier 1 or Tier 2 Soil and Groundwater Remediation Guidelines or CCME Environmental Quality Guidelines e) release has not caused, nor is there a potential to cause an adverse effect (*Contact Environment Dept if assistance is required when determining adverse effect*) f) all impacted parties (including landowner, grazing lease holder) have been notified – release material completely cleaned-up	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*)	Written Release Report to the AER using the AER Monthly Reporting Form [****By the 5th day of the current month for the previous month's incidents**] *(Env Dept)*	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---
Provincially-regulated pipelines	**[6.7] In Alberta** – Release to surface during a pipeline horizontal directional drill ("terrestrial frac out") and **NOT ALL** of the following criteria are met: a) release location is > 50 m from a waterbody b) release volume is < 2 m^3 c) release is contained on the ROW d) released materials – are comprised of bentonite and freshwater and non-toxic additives, products or chemicals; – do not contain additives, products, or chemicals that do not have criteria listed in Alberta Tier 1 or Tier 2 Soil and Groundwater Remediation Guidelines or CCME Environmental Quality Guidelines; e) release has not caused, nor is there a potential to cause an adverse effect (Contact Environment Dept if assistance is required when determining adverse effect) f) all impacted parties (including landowner, grazing lease holder) have been notified g) release material completely cleaned-up	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to AER *(Region)*	Written Release Report to AER, if requested *(Env Dept)*	Complete Incident Investigation Form and other applicable forms in EnCompass (*Region*)	---

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Table 7
Security

Jurisdiction	Reporting Criteria	Reporting Timeline			
		Immediately		Within 3 Business Days	Within 30 Days
Federally or Provincially-regulated pipelines	**[7.1] In all Provinces and Territories** Security incidents, that does not involve shutdown of pipeline operations of a facility, such as: Arson — Protest/interference Break and enter — Sabotage Damage — Suspicious activity Fraud — Theft Harassment — Threat Loss/missing — Trespassing Mischief — Vandalism Policy violation — Violence	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor, Verbal to Enterprise Security Advisor (*Region*)	Verbal to Enterprise Security (*Region*) Verbal to local police (*Region*)	Complete Enterprise Security Incident Report Form *(Region)*	Provide subsequent information to Enterprise Security *(Region)*
Federally or Provincially-regulated pipelines	**[7.2] In all Provinces and Territories** Operation of a portion of the pipeline is interrupted as a result of a situation or condition that poses a threat to any person, property or environment, such as: Security or terrorist threat that results in a pipeline shutdown Arson — Protest/interference Break and enter — Sabotage Damage — Suspicious activity Fraud — Theft Harassment — Threat Loss/missing — Trespassing Mischief — Vandalism Policy violation — Violence	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor, Verbal to Enterprise Security Advisor (*Region*) Initial submission in OERS to TSB [24 hours] (*Region*) Notify Regulatory Affairs of OERS submission (*Region*)	Verbal to Enterprise Security (*Region*) Verbal to local police (*Region*)	Complete Enterprise Security Incident Report Form *(Region)*	Provide subsequent information to Enterprise Security *(Region)* Update initial submission in OERS to satisfy TSB requirements (*Regulatory Affairs*) Complete Incident Investigation Form, AQS Form and other applicable forms, in EnCompass (*Region*)
Provincially-regulated pipelines	**[7.3] In Alberta** – sabotage event involving a transmission asset. ***NOTE***: *For additional guidance, see Appendix IV – Commentary (7.3)*	Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (*Region*) Verbal to Immediate Supervisor, Verbal to Enterprise Security Advisor (*Region*) ***Note****: if applicable to SCADA, also contact IT Security*	Verbal to: - AESO - RCMP (K Division, Tofield, Strathcona, Wood Buffalo) - Local police - Enterprise Security (*Enterprise Security*) ***Note****: see Appendix for agency phone numbers*	Complete Enterprise Security Incident Report Form *(Region)* Complete ISO 304-7 Event Report and submit to AEOS (Enterprise Security)	Provide subsequent information to Enterprise Security *(Region)*

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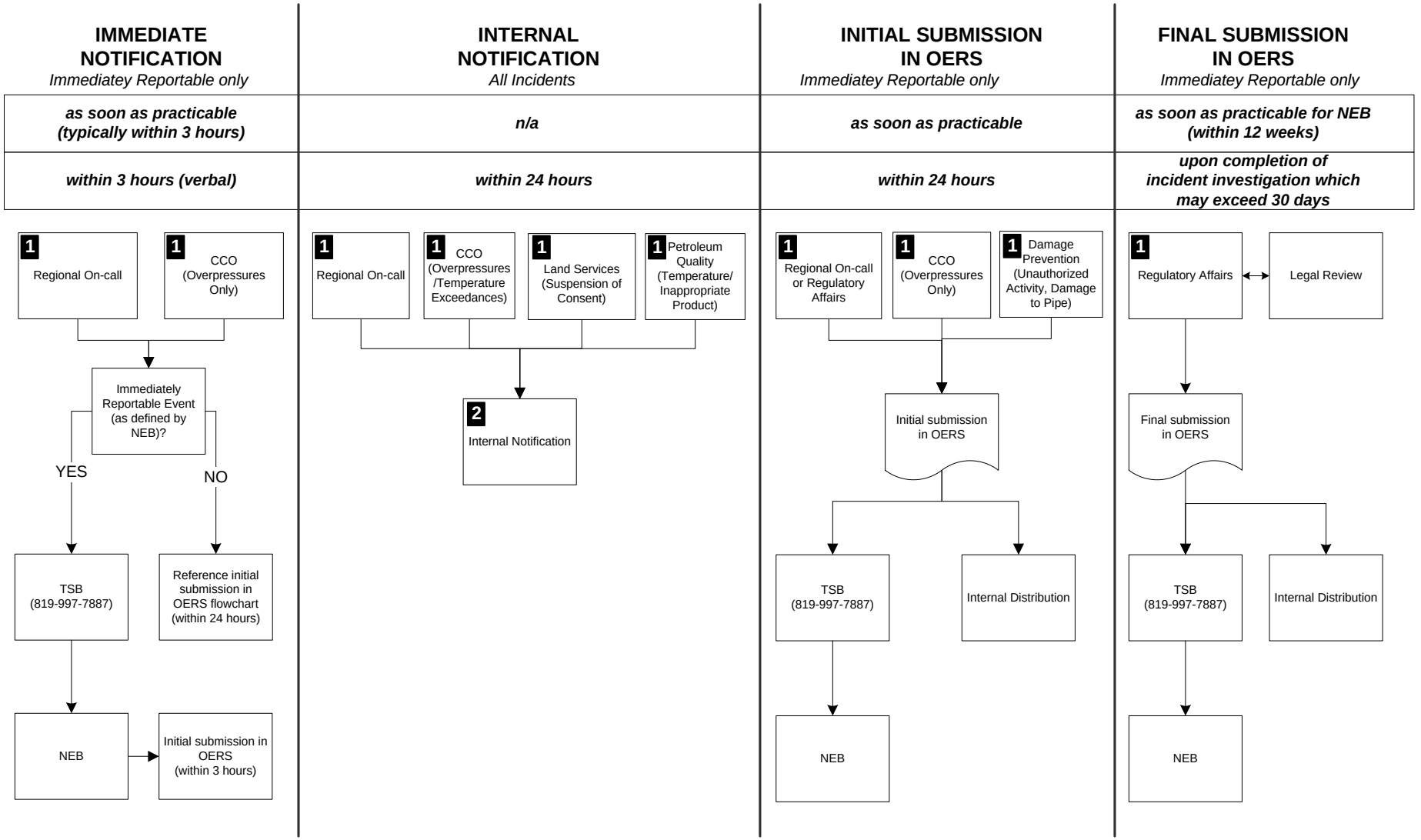

1 **Request Input From Other Departments As Required**
(S&E, P.I., ECC, Crossings, Regulatory Affairs, Law, etc.)

2 **Using the appropriate incident reporting system & notifications**

Figure 2
TSB/NEB Regulatory Incident Reporting

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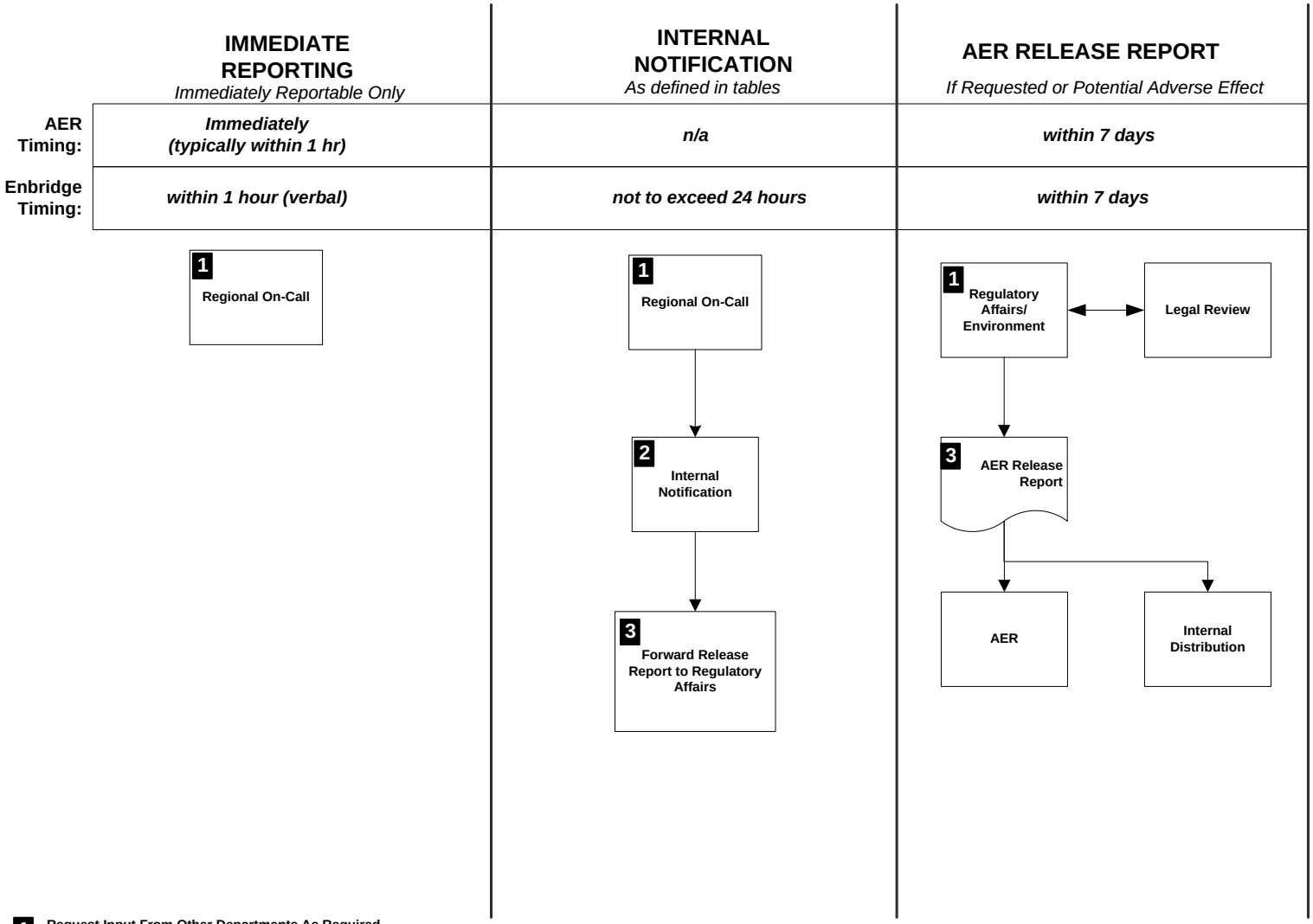

Figure 3
AER Regulatory Incident Reporting

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Appendix I
Agency Contact Phone Numbers

Note: For all emergency phone numbers, see applicable Emergency Response Directory (ERD)

Jurisdiction	Regulatory Agencies	Phone No.
Federal	Canadian Nuclear Safety Commission (CNSC)	(613) 995-0479
	Canadian Wildlife Service	see province
	Environment Canada (National Environmental Emergency Center)	(866) 283-2333
	Environmental Response Fisheries and Oceans Canada	(800) 265-0237
	Economic and Social Development Canada (ESDC)	(800) 641-4049
	Fisheries Protection Program	(855) 852-8320
	1-800 'Oh Canada' General Inquiries	(800) 622-6232
	National Energy Board (NEB) Note: *24/7 Incident Line*	(403) 807-9473
	Transportation of Dangerous Goods (CANUTEC) or see provincial list for local office	(613) 996-6666
	Transportation Safety Board of Canada (TSB) *Note: TSB will report to the NEB.*	(819) 997-7887
	Treasury Board of Canada Secretariat – Occupational Health and Safety	(613) 957-2514
	Workers Compensation	see province
Alberta	Alberta Boilers Safety Association (ABSA)	(780) 437-9100
	Alberta Electric System Operator (AESO)	(403) 233-7476
	Alberta Environment and Parks (AEP) – (24-hour Environmental Hotline)	(800) 222-6514
	Alberta Energy Regulator (AER) (Energy and Environmental Emergency 24-Hour Response Line)	(800) 222-6514
	Alberta Security and Strategic Intelligence Support Team (ASSIST)	(780) 644-2680
	Alberta Workplace Health and Safety (Edmonton)	(780) 415-8690
	Alberta Workplace Health and Safety (outside Edmonton)	(866) 415-8690
	Canadian Wildlife Service - Prairie Northern Region	(780) 951-8600
	CANUTEC	(613) 996-6666
	Environment Canada - (National Environmental Emergency Center)	(866) 283-2333
	Fisheries and Oceans Canada	(800) 265-0237
	RCMP – Alberta 'K' Division	(780) 412-5424
	RCMP – Tofield	(780) 662-3352
	RCMP – Strathcona	(780) 467-7741
	RCMP – Wood Buffalo	(780) 788-4000

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Jurisdiction	Regulatory Agencies	Phone No.
	Transportation of Dangerous Goods (Alberta Transportation)	(800) 272-9600
	Workers' Compensation Board (WCB) Toll Free in Alberta	(866) 922-9221
	Workers' Compensation Board (WCB) Toll Free outside Alberta	(800) 661-9608
Saskatchewan	Canadian Wildlife Service	(306) 975-4087
	CANUTEC	(613) 996-6666
	Environmental Response, Fisheries and Oceans Canada	(800) 265-0237
	Environment Canada	(866) 283-2333
	Saskatchewan Government Insurance (SGI)	(800) 667-9868
	Saskatchewan Ministry of Environment	(800) 667-7525
	Saskatchewan Ministry of Economy (Estevan)	(306) 637-4541
	Saskatchewan Ministry of Economy Emergency Support Line	(844) 764-3637
	Saskatchewan Workers' Compensation Board (WCB)	(306) 787-4370
	Transportation of Dangerous Goods (Saskatchewan Ministry of Environment)	(800) 667-7525
	Technical Safety Authority of Saskatchewan (TSASK)	(866) 530-8599
Manitoba	Canadian Wildlife Service - Prairie Northern Region	(780) 951-8600
	CANUTEC	(613) 996-6666
	Environment Canada – National Environmental Emergency Centre	(866) 283-2333
	Environmental Response, Fisheries and Oceans Canada	(800) 265-0237
	Manitoba Sustainable Development	(204) 945-4888
	Manitoba Mineral Resources (Virden)	(204) 748-4260
	Manitoba Mineral Resources (Waskada)	(204) 673-2472
	Manitoba Public Insurance (MPI)	(800) 665-2410
	Manitoba Workplace Safety & Health	(855) 957-7233
	The Office of the Fire Commissioner	(800)-282-8069
	Transportation of Dangerous Goods (Manitoba Conservation)	(204) 945-4888
	Workers' Compensation Board of Manitoba	(855) 954-4321
Ontario	Ontario Ministry of the Environment and Climate Change (MOECC), Spills Action Center (SAC)	(800) 268-6060 (416) 325-3000
	Workplace Safety and Insurance Board (WSIB)	(800) 387-5540
	Ontario Ministry of Labour	(877) 202-0008

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Jurisdiction	Regulatory Agencies	Phone No.
	Transportation of Dangerous Goods	Local Police
	CANUTEC	(613) 996-6666
	Technical Standards & Safety Authority (TSSA)	(877) 682-8772
	Environment Canada – National Environmental Emergency Centre	(866) 283-2333
	Canadian Wildlife Service - Ontario	(416) 739-5830
	Fisheries and Oceans Canada (Burlington)	(905) 336-6240
	Fisheries and Oceans Canada (Peterborough)	(705) 750-0269
	Fisheries and Oceans Canada (Prescott)	(613) 925-2865
	Fisheries and Oceans Canada (London)	(519) 668-2722
Quebec	Environment Canada – National Environmental Emergency Centre	(866) 283-2333
	Canadian Wildlife Service – Quebec	(800) 668-6767
	CANUTEC	(613) 996-6666
	Commission de la sante' et de la securite du travail (CSST)	(866) 302-2778
	Fisheries and Oceans Canada	(418) 648-2239
	Fisheries Protection Program	(877) 722-4828
	Occupational Health and Safety Commission	(866) 302-2778
	Ministère du Dévelopment durable, de l'Environnement, de la Lutte contre les changements climatiques (MDDELCC)	(866) 694-5454
	Quebec Region Environmental Response Program	(800) 363-4735 (418) 648 4557
	Régie du bâtiment du Québec	(800) 268-6060
	Transportation of Dangerous Goods	PQ Local Police
Northwest Territories	Canadian Wildlife Service	(867) 975-4642
	CANUTEC	(613) 996-6666
	Chief Safety Officer	(867) 669-4418
	Department of Public Works and Services	(867) 767-9043
	Environment Canada	(866) 283-2333
	Fisheries and Oceans Canada	(866) 290-3731
	Department of Environment and Natural Resources (ENR) 24 hour Spill Report Line	(867) 920-8130
	Department of Lands (GNWT Lands)	(867) 920-8130
	Mackenzie Valley Land and Water Board (MVLWB)	(867) 669-0506

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Jurisdiction	Regulatory Agencies	Phone No.
	Transportation of Dangerous Goods (Ministry of Environment NWT)	(867) 873-7654
	Workers' Safety and Compensation Commission (WSCC)	(867) 920-3888
For Death or damage to non-migratory birds and other animals, the regulatory agencies are as follows:		
	ASRD Rainbow Lake	(780) 956-3919
	NWT Environment and Natural Resources: Norman Wells to Tulita	(867) 587-2422
	NWT Environment and Natural Resources: Tulita to Wrigley	(867) 588-3441
	NWT Environment and Natural Resources: Wrigley to Alberta Border	(867) 695-6634

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Appendix II
Reportable Quantities of Transported Dangerous Goods

Class	Description	Minimum Quantities
1	Explosives	Any quantity
2	Gases	Any quantity that could pose a danger to public safety or any sustained release of 10 min. or more.
3	Flammable Liquids	Any quantity (Packing Group I or II) 30 L or 30 Kg (Packing Group III)
4	Flammable Solids, Substances likely to spontaneously combust, water reactive substances	Any quantity (Packing Group I or II) 30 L or 30 Kg (Packing Group III)
5	Oxidizers/Peroxides	Any quantity (Packing Group I or II) 30 L or 30 Kg (Packing Group III)
6.1	Toxic Substances	Any quantity (Packing Group I or II) 30 L or 30 Kg (Packing Group III)
6.2	Infectious Substances	Any quantity
7	Radioactive Materials	A level of ionizing radiation greater than the level established in Packing and Transport of Nuclear Substances Regulation, Section 39
8	Corrosives	Any quantity (Packing Group I or II) 30 L or 30 Kg (Packing Group III)
9	Miscellaneous Products, Substances or Organisms	30 L or 30 Kg

***NOTE**: The Packing Group indicates the degree of danger of a product or substance:*

- *Packing Group I – great danger (e.g., copper-based pesticide under transport)*
- *Packing Group II – moderate danger (e.g., gasoline under transport)*
- *Packing Group III – minor danger (e.g., diesel under transport)*

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Appendix III
TSB Verbal Notification Guidance Worksheet

This information will be requested by the TSB during verbal notification of an incident. This worksheet can be used to document discussions with the TSB and uploaded into an incident management system (EnCompass).

Prior to calling, ensure the event meets the criteria for a significant event: loss of human life, serious injury, fire or explosion that causes a pipeline or facility to be inoperative, LVP hydrocarbon release in excess of 1.5m^3 (9.4 bbls) that leaves company property or right-of-way, rupture or toxic plume (HVP hydrocarbon release).

DATE: **TIME:** **TSB CONTACT NAME:**

Requested Information	Incident Details
Name of operator:	
Date and time of occurrence:	
The unique identifier of the pipeline or portion of pipeline:	
Specific pipeline components that malfunctioned or failed:	
Location of occurrence (i.e., facility, pipeline kilometer post location):	
Closest city, town or village to the occurrence site:	
Number of persons that were killed or sustained a serious injury:	
Follow-up questions from the TSB:	
Description of any commodity contained in or released from the pipeline and an estimate of volume of commodity released or recovered:	
Follow-up questions from the TSB:	
Description of actual or anticipated duration of any interruption of the operation of the pipeline or a portion of the pipeline:	
Follow-up questions from the TSB:	
Description of the occurrence, the events leading up to it and the extent of any damage including the consequences on public, any other property and the environment:	
Follow-up questions from the TSB:	
Name, address and title of person making the report:	

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Appendix IV
Commentary

This appendix provides background information and additional guidance on reporting requirements for the reporting tables.

Figure 1 – Incident Reporting Table Usage Guide, Multiple Incidents	
1.0	It is possible that a single occurrence may result in multiple incident types. If multiple incident types occur as a result of a single occurrence, companies are expected to report those incident types under a single incident report. Examples of situations where this might be the case include, but are not limited to: - a pipeline rupture (occurrence) where there is a release of gas (incident type) and an explosion (incident type) - an industrial accident (occurrence) that causes a death (incident type), a serious injury (incident type) and a fire (incident type) - an operational malfunction (occurrence) that causes an overpressure (incident type) and a release of product (incident type) - an operational malfunction (occurrence) that causes several concurrent or immediately consecutive overpressures (incident types) In cases where an incident has occurred, and a second incident occurs during the response to the initial incident (e.g., a fire occurs during the clean-up of a spill), the second incident is considered distinct and should be reported separately.
Table 1 – Significant Incident Notifications	
1.1	Email notification should include: – Subject Line: LP Significant Incident Notifications – Summary of incident details – Name of designate responsible for performing regular updates For shutdown or leak events, email updates will stop when the line is returned to service or when the source of the release has been repaired and any environmental impact contained. The last email update will read “FINAL UPDATE” to indicate that no more updates will be issued. ** Call-up notification involves verbal notification to the next higher level within the organizational hierarchy. If the next level contact is unavailable and communication cannot be confirmed within 30 minutes, continue attempting to establish contact with the next higher level until an Executive Management Team (EMT) member is reached.
Table 2A – Releases/Leaks/Spills – Commodities	
2A	Record the following commodity releases, regardless of volume, in EnCompass: – crude oil on tank roofs (excludes minor seepage around appurtenances) – crude oil on building floors: if from a source that is not intended to release crude oil – crude oil inside a containment berm or building sump: if from a source that is not intended to release crude oil – valve seal packing: when weeping becomes dripping – pumps seals: if the drain system overflows (i.e., blocked drain, pump seal failure causing flow above system capacity) (excludes dripping into a drain

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	system where the system capacity is not exceeded) – flanges/threaded connections: when weeping becomes dripping – mixers: when weeping becomes dripping – small volumes resulting from maintenance activities (i.e., oil spilling out of a tub when removing a pig) Pipeline segment is defined as trap to trap.
2A.2	– Ground does not have to be impacted to trigger an immediately reportable release. – 'Unintended' – not planned or expected – 'Uncontrolled' – not in control of the hydrocarbon being released (i.e., using hand valve to control flow, etc.) – 'Uncontained' – volume loss not anticipated or intended and out of containment Events that do not fall under this definition include, but are not limited to, intended and controlled flaring or venting of natural gas or hydrocarbons including venting through properly functioning pressure relief valves or pressure safety valves. For HVP, supply an estimation of rate of release and total volume released when reporting incidents to OERS. To estimate the HVP release rate use: $Rate\,(kg/\sec) = 132.52 \times \left(\frac{h}{1000}\right)^2 \times \sqrt[2]{D \times P}$ *h = Equivalent hole diameter (mm)* *D = density of gas (kg/m³)* *P = Pressure of gas (bar(a), absolute pressure)* To calculate total HVP mass released for use in estimating volume: *Total Mass (kg) = Rate (kg/sec) x duration of release (sec)* To calculate duration of release, in order: - if the start and end times of the release are known, this is the actual duration of the release - if the start of the release is not known, use the time of the last inspection/surveillance/site visit of that part of the facility/pipeline to the time the release was discovered - if the last inspection/surveillance/site visit time is not known, assume the leak was present for a minimum of 30 days or the date the facility/pipeline was commissioned (whichever is less) NOTE: OERS will automatically determine whether or not the event meets the definition of 'an incident that harms people or the environment'. The company is responsible for specifically indicating whether or not the incident meets the definitions or 'rupture' and 'toxic plume'.
2A.3	Examples of a loss of LVP Hydrocarbons < 1.5 m³ (9.4 bbls) include but are not limited to:

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	– crude oil on tank roofs - excludes minor seepage around appurtenances – crude oil on building floors - if from a source that is not intended to release crude oil – crude oil inside a containment berm or building sump - if from a source that is not intended to release crude oil – valve seal packing - when weeping becomes dripping – pump seals - if the drain system overflows (i.e. blocked drain, pump seal failure causing flow above system capacity, etc.). Excludes dripping into a drain system where the system capacity is not exceeded – flanges/threaded connections - when weeping becomes dripping – mixers - when weeping becomes dripping – small volumes resulting from maintenance activities (i.e. oil spilling out of tub when removing a pig, etc.)
2A.4	Line pipe body refers to any wall breach of the transmission pipeline from outside of the stations or terminal fences.
Table 3A – People (Occupational Illness/Injury) – Fatality/Serious Injury	
3A.1	The Onshore Pipeline Regulations does not differentiate between different types of 'persons'. Therefore, companies must report all deaths or serious injuries to any person that occur, relating to pipeline construction, operation or abandonment, regardless of whether that person was directly employed by the company.
Table 3C – People (Occupational Illness/Injury) – Medical Aid/ Modified Work	
3C.1	For more instructions, see WCB Process Manual.
3C.2	Immediately after initial visit to the hospital or clinic.
3C.3	For more instructions, see WCB Process Manual.
3C.5	If the incident is in connection with an elevating device, reporting is required to TSSA.
Table 3D – People (Occupational Illness/Injury) – First Aid	
3D.1 thru 3D.3	Ensure the first aid injury is logged in the first aid logbook and EnCompass.
Table 4A – Property Damage – Structural Integrity/ Structural Threat to the Pipeline/ Operating Beyond Design Limits (i.e., Overpressures)	
4A.1	– The company uses internal control systems and operating procedures to ensure pressure is kept below the maximum allowable operating pressure (MAOP) and that in events where pressure does exceed such limits, an investigation is completed and corrective actions are identified and completed. In the event of a release, the region will be the lead investigator – A self-imposed pressure restriction is one possible mitigation measure to restore the required safety factors (e.g., 1.25 of intended operating pressure) on known defects for which the estimated failure pressure may be lower than design pressure
4A.2	The current interpretation is that the NEB expects that 'operating beyond design limits' incidents be reported on operating pipelines, which includes

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	pipelines in a deactivated state, but does not include pipelines in an abandoned or decommissioned state. The NEB definitions are as follows: *Abandon* - permanently cease operation, such that the cessation results in the discontinuance of service (highway analogy – closing both lanes of a two-lane highway such that no one can use the highway to get from point A to point B) *Decommission* - permanently cease operation, such that the cessation does not result in the discontinuance of service (highway analogy – closing one lane of a two-lane highway such that people can still use one lane to get from point A to point B) *Deactivate* - remove temporarily from service (deactivated facilities can be reactivated and returned to service after being granted approval by the NEB)
4A.3	'Ground disturbance' – any activity that involves: – Soil being disturbed or displaced to a depth of ≥ 30 cm – cultivation to a depth of ≥ 45 cm – any reduction of the earth cover over the pipeline 'Prescribed area' is defined as a strip of land measured 30 m perpendicularly on each side from the centerline of a pipe The NEB defines 'damage' as impacts caused by any person to an operational (including deactivated) pipeline where those impacts were: a) discovered during the course of operations or maintenance activities and are indicative of contact with the regulated pipeline; or b) outside the scope of a planned activity and there were no specific procedures in place to mitigate the damage Events that do not fall under this definition include: a) damage to the pipeline during an integrity dig where the scope of the integrity dig was to replace or repair that portion of the pipeline b) damage to the pipeline during slope stability work where potential contact with the pipeline was anticipated and specifically mitigated against
4A.4	For reporting purposes, the TSB Regulations have not yet been updated to use the term 'prescribed area', which is defined as a strip of land measuring 30 m perpendicularly on each side from the centerline of a pipe. To determine whether or not to report, contact Damage Prevention, Regulatory Affairs and Legal.
4A.5	'A threat to the safe operation' should be considered as an activity that is being actively monitored or immediately threating the integrity of the pipeline.
4A.6	Excludes precautionary or emergency shutdown of the pipeline to investigate unknown causes found to be false or nonhazardous (i.e., equipment malfunctions, inadvertent shutdowns, etc.).
4A.7	Incidents that fit this criterion would be any instances where the mainline is impeding the movement of trains, vehicles or watercraft. Pipeline Integrity should be consulted prior to reporting.
4A.8	Includes unauthorized 3rd party activity within 0.3 m (1 ft) of the pipeline, unauthorized activities such as pipeline crossings, use of explosives, mining and drilling activities, and natural activities (i.e., threat of flooding, landslides, etc.), but excludes minor incidents associated with authorized crossings of the ROW.
4A.10	When a leak or break in a pipeline or damage to a pipeline that resulted from a contact described above has been repaired, the NEB may require the

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	submission of reports in writing, in accordance with the regulations.
Table 4B – Property Damage – Fires/ Explosions	
4B.1	Events that are not reportable under this section include, but are not limited to, events that are not caused by the construction, operation or abandonment of a pipeline (e.g., grass or wildland fire that is caused by another party and does not impact pipeline facilities or operations).
Table 4D – Property Damage – Motor Vehicle Incident/Damage	
4D.1	For short-term rentals, see the company travel policy. If there is bodily injury, please refer to the People Safety Section.
4D.2	For short-term rentals, see the company travel policy.
Table 4F - Property Damage-Pressure Vessels/Boilers/Heaters/Heat Exchangers	

4F.1 thru 4F.7	All incidents involving a pressure vessel must be reported to the Federal and Provincial/Territory regulator.
	A pressure vessel is a closed vessel designed to contain, store, distribute, transfer, distill, processing, or otherwise handling gas, vapour or liquid and which exceeds the following service and size limits:
	– has an internal volume of 42.5 L (1.5 ft3) or more
	– is designed for internal gauge pressure of 103kPa (15 psig) or more
	– has an internal diameter of:
	  – 152mm (6 in) or more if it is not in water service; or
	  – 610mm (24 in) or more if it is water service

Table 5 – Rescue/Near Misses	
5.3	'A threat to the safe operation' should be considered as an activity that is being actively monitored or immediately threatening the integrity of the pipeline.
Table 7 – Security	
7.3	All sabotage reporting in Alberta must be in accordance with Alberta Reliability Standard – Annual Compliance CIP-001-AB-1 and CIP-AB1-1.

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DOCUMENT CHANGE LOG

Version 20.0	Version 21.0	Justification
Responsibilities Control Center Control Center is responsible for: • initiating incident reporting to applicable regulators in the event of overpressure incidents, as more specifically outlined in the Incident Reporting Tables • contacting regional on-call individual when potential contaminated soil is discovered	**Responsibilities Control Center** Control Center is responsible for: • initiating incident reporting to applicable regulators in the event of overpressure incidents, as more specifically outlined in the Incident Reporting Tables • initiating internal email notifications for temperature threshold exceedances • contacting regional on-call individual when potential contaminated soil is discovered	**OMS-REQR-00888** Reporting responsibilities for temperature and pressure requirements in Table 4A.1 and 4A.2 need to reflect current agreed to process for new requirements in NEB Reporting Guidelines.
N/A	**Responsibilities Land Services** Land Services is responsible for: • initiating internal incident reporting as outlined in the Incident Reporting Table 5.3 • notifying the region when consent of a 3rd party crossing or proximity agreement has been suspended	
N/A	**Responsibilities Petroleum Quality** Petroleum Quality is responsible for: • initiating internal incident reporting as outlined in the Incident Reporting Table 4A.2 • contacting Regulatory Affairs when an inappropriate product is discovered	
Regulatory Affairs, Health & Safety, Environment and Radiation Safety Officer Regulatory Affairs, Health & Safety (H&S), Environment and Radiation Safety Officer are responsible for…	**Regulatory Affairs, Health & Safety, Damage Prevention, Environment and Radiation Safety Officer** Regulatory Affairs, Health & Safety (H&S), Damage Prevention, Environment and Radiation Safety Officer are responsible for…	
4A.2 Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (Temperature – CCO)	**4A.2** Entry and verification of event in EnCompass (completion of logbook, event and impact forms) [by end of next business day] (Temperature – CCO*) (Slope movement – Region)	

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DOCUMENT CHANGE LOG

Version 20.0	Version 21.0	Justification
(Slope movement – Region) (Exposure – Region) (Inappropriate Product – PQ) Initial submission in OERS to NEB and TSB [24 hours] (Temperature –CCO) Complete Report, including Investigation Report, in EnCompass (Temperature –PQ)	(Exposure – Region) (Inappropriate Product – PQ) *CCO will also inform Thermal Management Group via email notification Initial submission in OERS to NEB and TSB [24 hours] (Temperature – Regulatory Affairs) Complete Report, including Investigation Report, in EnCompass (Temperature – CCO)	

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Annex 3 – Table of Contents Page

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3.0 Sensitive Area General Response Strategies

The High Consequence Areas ("HCAs") and Unusually Sensitive Areas ("USAs") that are detailed and defined for this Plan are an integral part of the Enbridge Northern Response Zone for emergency response. Due to the magnitude of the mapping involved the Enbridge Northern Region HCA Mapbook has been compressed into electronic media, and is accessible through regional offices.

In the event of an incident, a review of the Unusually Sensitive Area Map in *Section 3.11* would alert responders to the USAs within the area and direct them to High Consequence Area ("HCA") maps and tables, Control Point ("CP") maps and Environmentally Sensitive Area maps in order to protect environmentally and economically sensitive areas.

Regions maintain maps identifying HCAs along the pipeline, including:

- High Population Areas ("HPA")
- Other Population Areas ("OPA")
- Commercially Navigable Waterways ("CNW")
- Environmentally Sensitive Areas ("ESA")
- Drinking Water ("DW")

Regions provide Control Point Map sets that identify product containment and recovery sites (control points) on high risk water-bodies that could be impacted by a pipeline leak. The impact mechanism could be via direct crossing, overland flow or spray.

Below are the specifically identified Unusually Sensitive Areas. This information should be considered when responding to an incident within the Northern Response Zone.

3.1 Environmentally Sensitive Areas

Environmentally Sensitive Area ("ESA") HCAs are represented in the - *Unusually Sensitive Area Maps,* in Section 3.11 of this Annex*.*

Further information on ESAs may also be found in regional Environmentally Sensitive Areas maps.

3.2 Public Water Supplies/ Water Intakes

Drinking Water ("DW") HCAs (municipal drinking water wells and municipal water intakes) are represented in the Tables – *Unusually Sensitive Area Pipe Segments.*

3.3 Indigenous Community Lands

There is one indigenous community land within five kilometers of the response area corridor.

- Sahtu Lands

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3.4 National / Provincial Parks

There is one National Parks/ Provincial (Territorial) Parks/ Provincial Recreational Areas within five kilometers of the response zone corridor.

- Fort Simpson Territorial Park (NT)

3.5 Schools

There are no schools within the right-of-way (ROW) corridor.

3.6 Residential Areas

There are few residential areas within the response zone corridor. It is expected that residents would receive notification of pipeline spills over public communications media in these areas. Enbridge Northern Region Management would notify residents within the vicinity of a spill.

3.7 Businesses

Because of the various types of businesses and pipelines located in areas along the Northern Region pipeline routes, contacts for these businesses are not listed. It is expected that businesses would receive notification of pipeline spills over public communications media in these areas. Under the Incident Command System, the Public Information Officer is responsible for notifying businesses within the vicinity of an incident. Until the ICS is fully stood-up, the Public Information Officer position will be handled by the region's command IMT and or local management.

3.8 Water Resources/ Lakes and Streams

The following table lists the direct water crossings determined by LP Risk Management using the information that was collected by aerial imagery. Each visible water crossing was analyzed to meet the following criteria:

- a watershed size greater than 10km² or evidence of perennial open channel flow;
- an associated latitude/longitude
- a waterbody name

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Table 1: Northern Region Pipeline Water Crossings

Lines Impacted	Approx Line KP	Water Body Name	Number of Crossings	Approx Latitude	Approx Longitude
[redacted]					

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Lines Impacted	Approx Line KP	Water Body Name	Number of Crossings	Approx Latitude	Approx Longitude
[redacted]					

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Lines Impacted	Approx Line KP	Water Body Name	Number of Crossings	Approx Latitude	Approx Longitude
[redacted]					

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3.9 Historical/Archaeological Sites

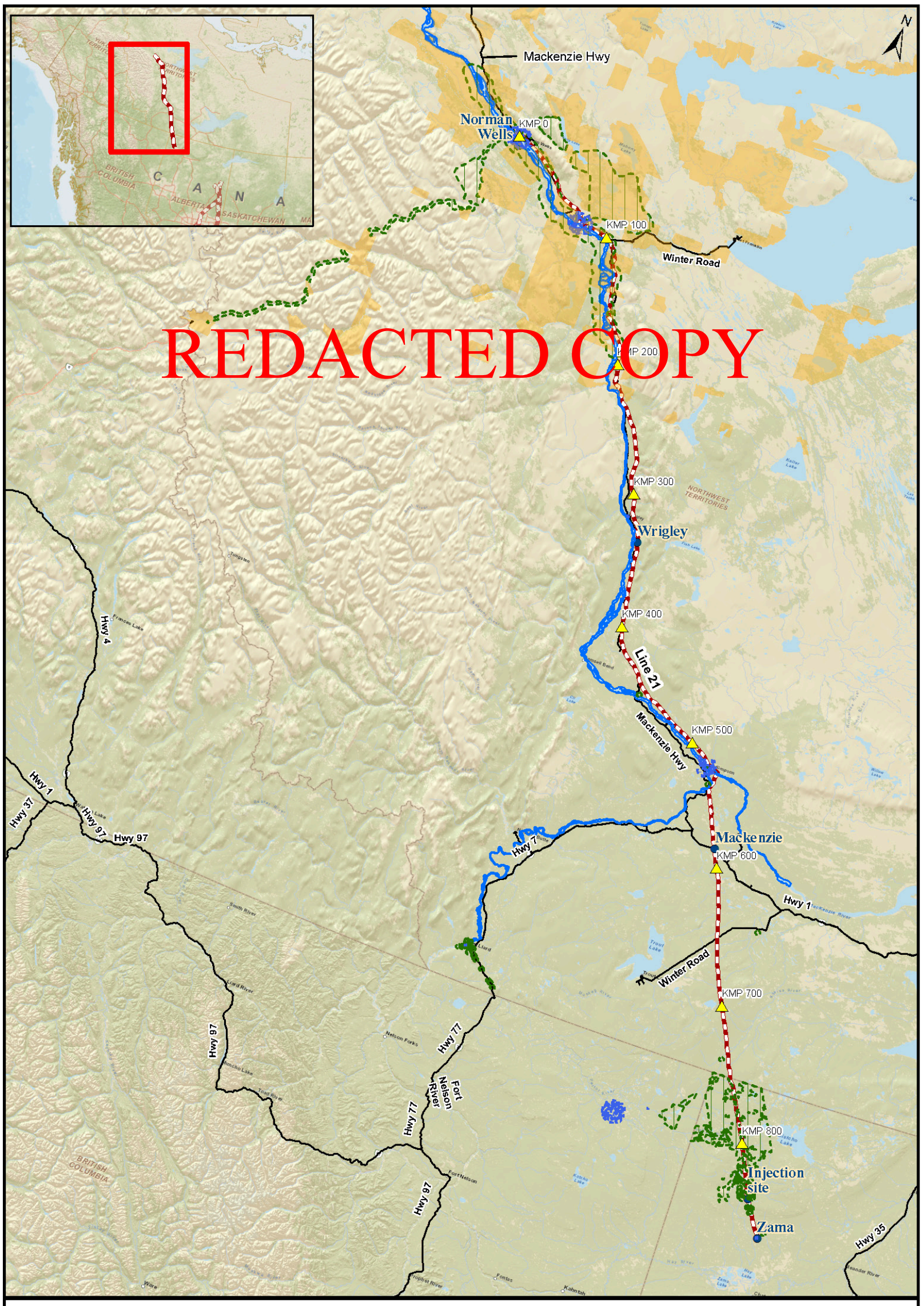
Environmental impact on a Historical/Archaeological site would be a major concern and would impact response activities. Consideration would be made when creating an IAP to address sensitivities around Historical/Archaeological sites. Prior to initiating response activities contact the Prince of Whales Northern Heritage Center.

3.10 Transportation Areas

The table below lists the transportation corridors that cross the regional pipeline.and may be affected during a response.

Federal and Provincial Highway Crossings
[redacted]

3.11 Unusually Sensitive Area



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Unusually Senitive Areas

Northwest Territories - Regional Overview

0 55 110 220 Kilometers

ENBRIDGE

ESA
CNW
DW
Highways
Pipeline
Kilometer Posts
Enbridge Stations
Sahtu First Nation

Date Issued:	09/05/2014
Date Revised:	02/11/2015
Drawn By:	AWC
Scale:	1:2,500,000
Map Series:	1 of 1

Natural Resources Engineering Co.
715-395-5680

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Annex 4 – Table of Contents Page

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Federal Legislation

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4.1 Transportation Safety Board Regulations, SOR/2014-37

Canadian Transportation Accident Investigation and Safety Board Act SOR/2014-37		
Section	**Brief Description**	**Location in ICP**
4 (1)	The operator of a pipeline must report the following pipeline occurrences to the Board if they result directly from the operation of the pipeline: *(a)* (a person is killed or sustains a serious injury; *(b)* (the safe operation of the pipeline is affected by (i) (i)damage sustained when another object came into contact with it, or (ii) (ii)a fire or explosion or an ignition that is not associated with normal pipeline operations; *(c)* (an event or an operational malfunction results in (i) (i)an unintended or uncontrolled release of gas, (ii) (ii)an unintended or uncontrolled release of HVP hydrocarbons, (iii) (iii)an unintended or uncontained release of LVP hydrocarbons in excess of 1.5 m3, or (iv) (iv)an unintended or uncontrolled release of a commodity other than gas, HVP hydrocarbons or LVP hydrocarbons; *(d)* (there is a release of a commodity from the line pipe body; *(e)* (the pipeline is operated beyond design limits or any operating restrictions imposed by the National Energy Board; *(f)* (the pipeline restricts the safe operation of any mode of transportation; *(g)* (an unauthorized third party activity within the safety zone poses a threat to the safe operation of the pipeline; *(h)* (a geotechnical, hydraulic or environmental activity poses a threat to the safe operation of the pipeline; *(i)* (the operation of a portion of the pipeline is interrupted as a result of a situation or condition that poses a threat to any person, property or the environment; or *(j)* (an unintended fire or explosion has occurred that poses a threat to any person, property or the environment.	Core 2.2 Notification and Communication; Core 2.2.1 Field Notifications; Core 2.2.2 Control Center; Core 2.2.3 Classification of the Incident; Annex 2.0 Notifications Overview; Annex 2.1 Emergency Responsibilities; Annex 2.2.3 Enbridge Incident Reporting Standard

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4.2 Transportation of Dangerous Good Regulation

Part 8 Accidental Release and Imminent Accidental Release Report SOR/2017-137		
Section	**Brief Description**	**Location in ICP**
8.1	**Application and Interpretation** This Part applies in respect of: (a) the release or anticipated release of dangerous goods that are being offered for transport, handled or transported by road vehicle, railway vehicle or ship; (b) the release or anticipated release of dangerous goods that are being offered for transport, handled or transported by aircraft; (c) undeclared and misdeclared dangerous goods that are being offered for transport, handled or transported by aircraft; (d) the loss or theft of dangerous goods; and (e) unlawful interference with dangerous goods.	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification
8.2	**Emergency Report — Road, Rail or Marine** A person who is required by subsection 18(1) of the Act 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 ship 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 table on the next page.	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification

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Part 8 Accidental Release and Imminent Accidental Release Report SOR/2017-137		
Section	**Brief Description**	**Location in ICP**
8.2 Cont.	<table><tr><th>Class¤</th><th>Packing·Group·or·Category¤</th><th>Quantity¤</th></tr><tr><td>1¤</td><td>II¤</td><td>Any·quantity¤</td></tr><tr><td>2¤</td><td>Not·applicable¤</td><td>Any·quantity¤</td></tr><tr><td>3,·4,·5,·6.1·or·8¤</td><td>I·or·II¤</td><td>Any·quantity¤</td></tr><tr><td>3,·4,·5,·6.1·or·8¤</td><td>III¤</td><td>30·L·or·30·kg¤</td></tr><tr><td>6.2¤</td><td>A·or·B¤</td><td>Any·quantity¤</td></tr><tr><td>7¤</td><td>Not·applicable¤</td><td>A·level·of·ionizing·radiation·greater·than·the·level·established·in·section·39·of·the·"Packaging·and·Transport·of·Nuclear·Substances·Regulations,·2015"¤</td></tr><tr><td>9¤</td><td>II·or·III,·or·without·packing·group¤</td><td>30·L·or·30¤</td></tr></table>	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification
8.3	**Information to be Included in an Emergency Report — Road, Rail or Marine** An emergency report referred to in section 8.2 must include the following information: (a) the name and contact information of the person making the report; (b) in the case of a release of dangerous goods, the date, time and geographic location of the release; (c) in the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release; (d) the mode of transport used; (e) the shipping name or UN number of the dangerous goods; (f) the quantity of dangerous goods that was in the means of containment before the release or anticipated release; (g) in the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released; and (h) if applicable, the type of incident leading to the release or anticipated release, including a collision, roll-over, derailment, overfill, fire, explosion or load-shift.	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification

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Part 8 Accidental Release and Imminent Accidental Release Report SOR/2017-137		
Section	**Brief Description**	**Location in ICP**
8.4(1)	**Release or Anticipated Release Report — Road, Rail or Marine** (1) Subject to subsection (2), a person who has made an emergency report referred to in section 8.2 must, as soon as possible after making it, make a report to the persons listed in subsection (	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification
8.4(2)	(2) Subject to subsection (3), the person is not required to make a report referred to in subsection (1) if the release or anticipated release did not result in: (a) the death of a person; (b) a person sustaining injuries that required immediate medical treatment by a health care provider; (c) an evacuation of people or their shelter in place; or (d) the closure of **(i)** a facility used in the loading and unloading of dangerous goods, or a road, a main railway line or a main waterway.	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification
8.4(3)	(3) The person is required to make a report referred to in subsection (1) if: (a) a means of containment has been damaged to the extent that its integrity is compromised; or the centre sill or stub sill of a tank car is broken or there is a crack in the metal equal to or greater than 15 cm (6 in.).	
8.4(4)	(4) For the purposes of subsection (1), the persons to whom a report must be made are (a) CANUTEC, at 1-888-CANUTEC (1-888-226-8832) or 613-996-6666; (b) the consignor of the dangerous goods; (c) in the case of dangerous goods included in Class 7, Radioactive Materials, the Canadian Nuclear Safety Commission; and in the case of a ship, a Vessel Traffic Services Centre or a Canadian Coast Guard radio station.	

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Part 8 Accidental Release and Imminent Accidental Release Report SOR/2017-137		
Section	**Brief Description**	**Location in ICP**
8.5	**Information to be Included in a Release or Anticipated Release Report — Road, Rail or Marine** A release or anticipated release report referred to in section 8.4 must include the following information: (a) the name and contact information of the person making the report; (b) in the case of a release of dangerous goods, the date, time and geographic location of the release; (c) in the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release; (d) the mode of transport used; (e) the shipping name or UN number of the dangerous goods; (f) the quantity of dangerous goods that was in the means of containment before the release or anticipated release; (g) in the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released; (h) if applicable, the type of incident leading to the release or anticipated release, including a collision, rollover, derailment, overfill, fire, explosion or load-shift; (i) if applicable, the name and geographic location of any road, main railway line or main waterway that was closed; (j) a description of the means of containment containing the dangerous goods; (k) if applicable, an estimate of the number of people evacuated or sheltered in place; and (l) if applicable, the number of deaths and the number of persons who sustained injuries that required immediate medical treatment by a health care provider.	Core 2 Notification Annex 2 Notification Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification
8.6	**30-Day Follow-up Report** A person who has made a report referred to in section 8.4, or the person's employer, must make a follow-up report in writing to the Director General within 30 days after the day on which the report was made.	Annex 2.2.3 Enbridge Incident Reporting Standard

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Part 8 Accidental Release and Imminent Accidental Release Report SOR/2017-137		
Section	**Brief Description**	**Location in ICP**
8.7	**Information to be Included in a 30-Day Follow-up Report** A follow-up report referred to in section 8.6 must include the following information: (a) the name and contact information of the person making the report; (b) the names and contact information of the consignor, consignee and carrier; (c) in the case of a release of dangerous goods, the date, time and geographic location of the release; (d) in the case of an anticipated release of dangerous goods, the date, time and geographic location of the incident that led to the anticipated release; (e) the mode of transport used; (f) the classification of the dangerous goods; (g) the quantity of dangerous goods that was in the means of containment before the release or anticipated release; (h) in the case of a release of dangerous goods, the quantity of dangerous goods estimated to have been released; (i) a description of the means of containment containing the dangerous goods; (j) if applicable, a description of any failure of or damage to the means of containment; (k) information about the events leading to the release or anticipated release of dangerous goods; (l) information as to whether there was an explosion or fire; (m) the name and geographic location of any facility used in the loading or unloading of the dangerous goods that was closed, and the duration of the closure; (n) the name and geographic location of any road, main railway line or main waterway that was closed, and the duration of the closure; (o) if applicable, an estimate of the number of people evacuated or sheltered in place and the duration of the evacuation or shelter in place; (p) if applicable, the number of deaths and the number of persons who sustained injuries that required immediate medical treatment by a health care provider; (q) if applicable, the ERAP reference number; (r) the date on which the report referred to in section 8.4 was made; and (s) an estimate of any financial loss incurred as a result of the release or anticipated release, and any emergency response cost or remediation costs related to it.	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification

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Part 8 Accidental Release and Imminent Accidental Release Report SOR/2017-137		
Section	**Brief Description**	**Location in ICP**
8.8	**30-Day Follow-up Report — Notice and Retention of Report** **(1)** A person who has made a follow-up report referred to in section 8.6 must, as soon as possible, notify the Director General of any change to the information referred to in paragraph 8.7(f), (i), (j), (k), (l), (p) or (s) that occurs within one year after the day on which the follow-up report was made. **(2)** The person must keep a copy of the report for two years after the day on which it is made. **(3)** The person must make the report available to an inspector within 15 days after the day on which the person receives a written request from the inspector.	Core 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification

4.3 NEB Onshore Pipeline Regulation SOR/99-294

SOR 99_294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
Management System 6.1: A company shall establish, implement and maintain a management system that (a) is systematic, explicit, comprehensive and proactive; (b) integrates the company's operational activities and technical systems with its management of human and financial resources to enable the company to meet its obligations under section 6; (c) applies to all the company's activities involving the design, construction, operation or abandonment of a pipeline and to the programs referred to in section 55; (d) ensures coordination between the programs referred to in section 55; and (e) corresponds to the size of the company, to the scope, nature and complexity of its activities and to the hazards and risks associated with those activities.	IMS 07 Emergency and Security Management System IMS 01 Governing Policies and Process IMS 04 Occupational Health and Safety Management System

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
6.2: (1) The company shall appoint an officer as accountable officer to ensure on its behalf that its management system and the programs referred to in section 55 are established, implemented and maintained in accordance with section 6.1, this section and sections 6.3 to 6.6 and that its obligations under section 6 are met.	IMS 01 Governing Policies and Process
6.2: (2) Within 30 days after the appointment of its accountable officer, the company shall notify the Board in writing of the name of the person appointed and ensure that the accountable officer submits to the Board a signed statement accepting the responsibilities of their position.	
6.2: Management System cont. (3) The company shall ensure that the accountable officer has authority over the human and financial resources required to (a) establish, implement and maintain the management system and the programs referred to in section 55; and ensure that the company's activities are carried out in a manner that enables it to meet its obligations under section 6.	IMS 01 Governing Policies and Process
6.3: (1) The company shall establish documented policies and goals for meeting its obligations (a) a policy for the internal reporting of hazards, potential hazards, incidents and near-misses that includes the conditions under which a person who makes a report will be granted immunity from disciplinary action; (b) goals for the prevention of ruptures, liquid and gas releases, fatalities and injuries and for the response to incidents and emergency situations.	Elements of the EMP are being executed across several Management Systems in Enbridge but there is no central framework to tie it all together. There is no single program document defining what the LP EMP is, its purpose and scope, or accountabilities within Enbridge. The EMP does not have a defined set of goals, objectives and targets that are documented.

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
6.3: (2) The company shall base its management system, as well as the programs referred to in section 55, on those policies and goals.	
6.3: (3) The accountable officer shall prepare a policy statement that sets out the company's commitment to those policies and goals and shall communicate it to the company's employees.	Elements of the EMP are being executed across several Management Systems in Enbridge but there is no central framework to tie it all together.
6.4: The company must have a documented organizational structure that enables it to (a) meet the requirements of the management system and meet its obligations under section 6; (b) determine and communicate the roles, responsibilities and authority of the officers and employees at all levels of the company; and (c) demonstrate, based on an annual documented evaluation of need, that the human resources allocated to establishing, implementing and maintaining the management system are sufficient to meet the requirements of the management system and to meet the company's obligations under section 6.	IMS 07 Emergency and Security Management System Integrated Contingency Plan IMS 07 Emergency Incident Response Overview Incident Management Handbook IMS 01 Governing Policies and Process
Emergency Management Program 32: (1) A company shall develop, implement and maintain an emergency management program that anticipates, prevents, manages and mitigates conditions during an emergency that could adversely affect property, the environment or the safety of workers or the public. (1.1) The company shall develop an emergency procedures manual, review it regularly and update it as required.	IMS 07 Emergency and Security Management System IMS 01 Governing Policies and Process IMS 04 Occupational Health & Safety Integrated Contingency Plans (Core 1.4 & Core 2.0.1, Core 3.0, Annex 2.2, Annex 5.1.), Tactical Response Plans, Tactical Response Guide, Guide Exercise

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
(2) A company shall submit the emergency procedures manual and any updates that are made to it to the Board.	Design Guide, Course Syllabus, Pre-fire Plans for Athabasca, Central, Eastern, and Western Regions.
33: A company shall establish and maintain liaison with the agencies that may be involved in an emergency response on the pipeline and shall consult with them in developing and updating the emergency procedures manual.	Mutual Aid Agreement Development Process, CEPA MEAA Providing Assistance Workbook, CEPA MEAA Receiving Assistance Workbook, CANADA - Public Awareness Program for First Response & Municipal Organizations Record. Emergency Response Education Program Training Records, 911 Dispatch Module training records
Emergency Management Program 34: A company shall take all reasonable steps to inform all persons who may be associated with an emergency response activity on the pipeline of the practices and procedures to be followed and make available to them the relevant information that is consistent with that which is specified in the emergency procedures manual.	IMS 07 Emergency and Security Management System IMS 01 Governing Policies and Process IMS 04 Occupational Health & Safety Top Risk Areas Volume Out Dispersion Analysis Results High Consequence Areas Implementation Docs: Book 1 Incident Reporting, Integrated

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
Emergency Management Program 35: A company shall develop a continuing education program for the police, fire departments, medical facilities, other appropriate organizations and agencies and the public residing adjacent to the pipeline to inform them of the location of the pipeline, potential emergency situations involving the pipeline and the safety procedures to be followed in the case of an emergency.	Contingency Plans (Core 1.4 & Core 2.0.1, Core 3.0, Annex 2.2, Annex 5.1.), Tactical Response Plans, Tactical Response Guide, Guide Exercise Design Guide, Course Syllabus, Pre-fire Plans for Athabasca, Central, Eastern, and Western Regions. Mutual Aid Agreement, IMS 07 Mutual Aid Agreement Development Process, CEPA MEAA Providing Assistance Workbook, CEPA MEAA Receiving Assistance Workbook, CANADA - Public Awareness Program for First Response & Municipal Organizations Record. Emergency Response Education Program Training Records, 911 Dispatch Module training records
General Operation Requirements 36: A company shall (a) maintain communication facilities for the safe and efficient operation of the pipeline and for emergency situations;	Information Production Unit written and visual communication materials Media alerts and advisories New Releases (including advance notices or external website notices) Messaging, Statements Social Media Messages Dark Website Emergency Response Advisory Team (ERAT) records ICP Core 2.0, core 2.4.1.5, core 2.4.1.6
Surveillance and Monitoring 39 A company shall develop a surveillance and monitoring program for the protection of the pipeline, the public and the environment	Currently being developed

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
Training Program 46: (1) A company shall develop and implement a training program for any employee of the company who is directly involved in the operation of the pipeline.	ICP core 3, Training Syllabi, Training Records, Regional Training Matrices, Training Program
Training Program 46: (2) The training program shall instruct the employee on (a) the safety regulations and procedures applicable to the day-to-day operation of the pipeline; (a.1) the security processes, procedures and measures applicable to the day-to-day operation of the pipeline; (b) responsible environmental practices and procedures in the day-to-day operations of the pipeline; (c) the procedures for the proper operation of the equipment that the employee could reasonably be expected to use; and (d) the emergency procedures set out in the manual developed under section 32 and the procedures for the operation of all emergency equipment that the employee could reasonably be expected to use.	ICP core 3, Training Syllabi, Training Records, Regional Training Matrices, Training Program
Training Program 46: (3) The company shall use reasonable efforts to ensure that any employee who attends a training program has a working knowledge of the subject-matter of the program at the end of the program.	

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
Safety Management Program 47: A company shall develop, implement and maintain a safety management program that anticipates, prevents, manages and mitigates potentially dangerous conditions and exposure to those conditions during all activities relating to construction, operation, maintenance, abandonment and emergency situations.	IMS 01 Governing Policies and Process IMS 04 Occupational Health & Safety
Security Management Program 47.1: A company shall develop, implement and maintain a security management program that anticipates, prevents, manages and mitigates conditions that could adversely affect people, property or the environment.	IMS-07 Emergency & Security Security Vulnerability Assessments (SVAs) SVA tracking sheet Assessments stemming from IMS-04 or initiated by LP Security LP Security Incident Reporting Form Internal/external security audits
Damage Prevention Program 47.2: A company shall develop, implement and maintain a damage prevention program that anticipates, prevents, manages and mitigates damage to its pipeline and meets the requirements set out in section 16 of the National *Energy Board Pipeline Damage Prevention Regulations — Obligations of Pipeline Companies*.	On the Enbridge agenda to be developed
Incident Report 52: (1) A company shall immediately notify the Board of any incident relating to the construction, operation or abandonment of its pipeline and shall submit a preliminary and detailed incident report to the Board as soon as is practicable.	ICP and Enbridge Incident Reporting Standard IMS 01 Governing Policies and Process ICP and Book 1 IMS 01 Governing Policies and Process

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
(2) After notification of an incident, an inspection officer may partially or completely relieve a company from the requirement to submit a preliminary and detailed incident report.	ICP and Enbridge Incident Reporting Standard IMS 01 Governing Policies and Process ICP and Book 1 IMS 01 Governing Policies and Process
Audits and Inspections General Compliance 53: (1) A company shall conduct inspections on a regular basis and audits, with a maximum interval of three years, to ensure that its pipeline is designed, constructed, operated and abandoned in compliance with (a) Part III of the Act; (b) Part V of the Act, as it relates to the protection of property and the environment and the safety and security of the public and of the company's employees; (c) these Regulations; and (d) the terms and conditions of any certificate or order issued by the Board, as they relate to the protection of property and the environment and the safety of the public and of the company's employees.	IMS 01 Governing Policies and Process
53 (2) The audit shall document (a) all non-compliance noted; and any corrective action taken or planned to be taken.	

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
Program Audits 55: (1) A company shall conduct audits, with a maximum interval of three years, of the following programs: (a) the emergency management program referred to in section 32; (b) the integrity management program referred to in section 40, including the pipeline control system referred to in section 37; (c) the safety management program referred to in section 47; (d) the security management program referred to in section 47.1; (e) the environmental protection program referred to in section 48; and (f) the damage prevention program referred to in section 47.2.	IMS 01 Governing Policies and Process
(2) The documents prepared following the audit shall include (a) any deficiencies noted; and any corrective action taken or planned to be taken.	IMS 01 Governing Policies and Process

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
56: A company shall, in addition to complying with the record retention requirements set out in the CSA standards referred to in section 4, retain (a) until at least one month after the date on which they were recorded, the records made under paragraphs 36(c) and 37(b) except for leak detection data, which shall be retained for six months; (b) an annual report on the training program developed under section 46 that compares the actual training received by employees to the planned training; (c) for at least one year after a pipeline or part of one is placed into service, any information with respect to the quality assurance program developed under section 15; (d) for the most recent five years of operation or for the period covered by the two most recent complete audits, whichever period is longer, the records for the audits and inspections required by sections 53 to 55; (e) for as long as the installations referred to in section 38 remain on the pipeline, detailed records of those installations, (e) for as long as the installations referred to in section 38 remain on the pipeline, detailed records of those installations, including (i) IMS 01 Governing Policies and Process (ii) IMS 06 Environmental (iii) Retention and Disposition of Transitory Material Guide (iv) Records System Identification Standard (v) Records Retention Schedule (vi) Information Classification Standard (vii) Records Management Policy accurate records of the location of all buried facilities, until they are removed;	IMS 01 Governing Policies and Process IMS 06 Environmental Retention and Disposition of Transitory Material Guide Records System Identification Standard Records Retention Schedule Information Classification Standard Records Management Policy

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SOR/99-294 Onshore Pipeline Regulation	
Program Element (Oct 2016)	**EM Control**
56 (f) for at least two years after the operation of a pipeline or part of one has been duly abandoned in accordance with all applicable requirements (i) all records available to the company in respect of the procedures used in each stage of the construction of the pipeline or part, (ii) the production reports and mill certificates, (iii) the specifications and name-plate data, if any, of the pumps, compressors, drivers, storage tanks and other major equipment of the pipeline, (iv) the performance curves of all main line pumps and compressors of the pipeline, (v) the reports of all surveillance and monitoring programs developed under section 39, (vi) the documentation referred to in section 41 in respect of pipeline defects, and the documentation on all incidents reported under section 52.	IMS 01 Governing Policies and Process IMS 06 Environmental Retention and Disposition of Transitory Material Guide Records System Identification Standard Records Retention Schedule Information Classification Standard Records Management Policy

4.4 NEB Emergency Procedures Manual Requirements

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National Energy Board Act Reporting - Board Letter to all companies, dated 26 March 2015		
Section	**Brief Description**	**Location in ICP**
	Reporting Guidelines – File # OFSurv-CompMan 01 Board Letter to all companies, dated 26 March 2015	Annex 2.2 Incident Reporting
Annex A - 2	The contents of the Emergency Procedure Manual, should include, but are not limited, to the following: • Manual Distribution List (or on separate file)	Annex 5.0 Distribution List (List for region is on separate file)
	• Manual updating procedures and schedule (or on a separate file);	Update Notice and Revision Record Table; Annex 5.0 Distribution List (List for region is on separate file); Annex 5.1 Revision Process
	• Description of initial actions when someone reports an incident;	Core 2.1 Discovery and Detection; Core 2.2 Notification and Communication; Annex 2.0.1 Emergency Notification/Activation
	• Definitions and levels of emergencies;	Core 2.2.3 Classification of the Incident
	• Corporate and operational chains of command (e.g., organization structures);	Core 1.3 Purpose and Scope of the Plan; Core 1.4.1 Enbridge Emergency Response and Support Team Hierarchy; Core 2.4.1.2 Incident Command Structure;

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National Energy Board Act Reporting - Board Letter to all companies, dated 26 March 2015		
Section	**Brief Description**	**Location in ICP**
Annex A – 2, Continued	• management of threat information;	Core 2.2.2 Control Center; Core 2.2.3 Classification of the Incident; Core 2.3.4.2 Community Evacuation; Core 2.4.3 Hazard-Specific Field Response Team Guides; Core 4, ICP 002 First Responder Checklist; Core 4, ICP 005 Threat Checklist
	• incident management system (e.g., Incident Command System);	Core 2.4.1 Enbridge's Response Management System; Annex 2.2.2 Incident Management Team
	• spill control procedures and locations of spill control points (if applicable);	Core 2.1.1.2 Discharge Mitigation; Core 2.2.1 Field Notifications; Core 2.4.4.2 Field Response Team – Pipeline Release; Core 2.4.4.5 Spill Volume Estimation; Core 2.4.6.1 Spills to Groundwater; Core 2.4.9.1 Inland Spill Response Tactics Guide; Annex 1.6 Local Spill Response Equipment; Annex 2.2.3 External Agencies and Support Resources; Annex 3, Unusually Sensitive Area Information; SPILL CONTROL POINT LOCATIONS (CP Map Sets) (separate file due to size of documents)

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National Energy Board Act Reporting - Board Letter to all companies, dated 26 March 2015		
Section	**Brief Description**	**Location in ICP**
Annex A – 2, Continued	• debriefing procedure;	Core 2.4.1.5 ICS Roles and Responsibilities (Incident Commander to determine other attendees); Core 2.5.2.1 Debriefing the Incident; Core 2.5.2 After Action Review; Core 2.5.2.2 Post-Incident Analysis
	• internal and external communications;	Core 1.2.2 Joint Information Center (JIC) definition Core 1.5.3 Leak Detection Systems; Core 1.5.3 Third Party Reporting System; Core 1.5.5 Public Awareness & Education; Core 2.0.1 #9 Guiding Objectives and Strategies Core 2.0.2 Documentation; Core 2.2 Notification and Communication Core 2.2.4 Third-Party Notifications; Core 2.2.5 External Communication; Core 2.3.3 Evacuation; Core 2.4.1.5 ICS Roles and Responsibilities, (Command Staff – Incident Commander, Public Information Officer, Liaison Officer) Core 4 Forms ICS 205, Communications Plan; Core 4 Forms ICS 202, General Response Objectives; Annex 1.7 Evacuation

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National Energy Board Act Reporting - Board Letter to all companies, dated 26 March 2015		
Section	**Brief Description**	**Location in ICP**
Annex A – 2, Continued	• roles and responsibilities for internal positions involved in a response (including contractors);	Core 2.4.1.3 ICS 207 Organizational Chart; Core 2.4.1.5 Roles and Responsibilities; Annex 1.6 Local Spill Response Equipment; Annex 1.7 Evacuation
	• roles and responsibilities for agencies that would likely be involved in a response;	Core 2.4.1.3 ICS 207 Organizational Chart; Core 2.4.1.5 ICS Roles and Responsibilities; Core 2.4.1.7 Expanding Incidents / Unified Command; Annex 2.2.3 External Agencies and Support Resources
	• environmental or other areas requiring special consideration or protection;	Core 2.4.6 Environmental Response; Core 2.4.7 Waste and Disposal; Core 2.4.9 Protection, Containment and Recovery; Annex 3, Unusually Sensitive Area Information
	• detailed product information;	Annex 1.5 Response Zone Description; Annex 1.10 Safety Data Sheets
	• internal and external reporting requirements;	Core 1.5.3 Leak Detection System, Core 2.2 Notification and Communication; Core 2.4.4.7 Fire or Explosion First Responder Guide; Core 2.4.6.6 Environmental Documentation; Annex 2.2 Incident Reporting
	• up-to-date internal and external contact lists;	Annex 2.2.3 External Agencies and Support Resources

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National Energy Board Act Reporting - Board Letter to all companies, dated 26 March 2015		
Section	**Brief Description**	**Location in ICP**
Annex A – 2, Continued	• lists of persons in the Emergency Planning Zones (or on a separate file);	Annex 3 identifies First Nation community Lands, Schools, Residential Areas, and Businesses. Specific lists are kept on a separate file with the Public Awareness Program
	• description and location of response equipment, including information on how to access the response equipment on a 24-hour basis;	Annex 1.6 Local Spill Response Equipment; For full inventory listing refer to http://www.ecrc.ca/en/about_ecrc/equipment.asp.
	• up-to-date area maps;	Core 1.7 Canada Pipeline System Map; Core 1.8 US Pipeline System Map; Annex 1.8 Emergency Response Time Maps; Annex 1.6 Local Spill Response Equipment;
	• mutual aid agreements (or on a separate file) or a reference to mutual aid agreements in the emergency procedures manual; and	Annex 2.2.3 External Agencies and Support Resources; Annex 1.8.4 Emergency Response Time Maps for Mutual Aid agreements; CEPA mutual Aid Agreement available at: http://myteamsites.cnpl.enbridge.com/sites/EmergencySM/Mutual%20Aid/default.aspx
	• forms and records.	Core 2.0.2 Documentation; Core 2.4.1.5 Roles and Responsibilities; Core 4, Forms

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4.5 Fisheries Act, R.S.C., 1985, c. F-14

R.S.C., 1985, c. F-14 Fisheries Act		
Section	**Brief Description**	**Location in ICP**
38 (4)	Every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations of an occurrence that results in serious harm to fish that are part of a commercial, recreational or Aboriginal fishery, or to fish that support such a fishery, that is not authorized under this Act, or of a serious and imminent danger of such an occurrence, if the person at any material time (*a*) owns or has the charge, management or control of the work, undertaking or activity that resulted in the occurrence or the danger of the occurrence; or (*b*) causes or contributes to the occurrence or the danger of the occurrence.	Core 2.2 Notification and Communication; Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2.2.3 External Agencies and Support Resources
38 (5)	If there occurs a deposit of a deleterious substance in water frequented by fish that is not authorized under this Act, or if there is a serious and imminent danger of such an occurrence, and detriment to fish habitat or fish or to the use by humans of fish results or may reasonably be expected to result from the occurrence, then every person shall without delay notify an inspector, a fishery officer or an authority prescribed by the regulations if the person at any material time (*a*) owns or has the charge, management or control of (i) the deleterious substance, or (ii) the work, undertaking or activity that resulted in the deposit or the danger of the deposit; or (*b*) causes or contributes to the occurrence or the danger of the occurrence.	
38 (6)	Any person described in paragraph (4)(*a*) or (*b*) or (5)(*a*) or (*b*) shall, as soon as feasible, take all reasonable measures consistent with public safety and with the conservation and protection of fish and fish habitat to prevent the occurrence or to counteract, mitigate or remedy any adverse effects that result from the occurrence or might reasonably be expected to result from it.	Core 2, Core Plan Elements
38 (7)	As soon as feasible after the occurrence or after learning of the danger of the occurrence, the person shall provide an inspector, fishery officer or an authority prescribed by the regulations with a written report on the occurrence or danger of the occurrence.	Annex 2.2.3 External Agencies and Support Resources

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4.6 Paragraph 35(2)(b) of the Fisheries Regulations SOR/2013-191

Applications for Authorization under Paragraph 35(2)(b) of the Fisheries Regulations SOR/2013-191		
Section	**Brief Description**	**Location in ICP**
4 (1)	**Required information — emergency circumstances** Only the information listed in Schedule 2 must be submitted to the Minister in support of an application in respect of a work, undertaking or activity that needs to be carried on without delay in response to (a) a matter of national security; (b) a national emergency for which special temporary measures are taken under the Emergencies Act; or (c) an emergency that poses a risk to public health or safety or to the environment or property.	Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2 Notification

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4.7 Canadian Environmental Protection Act, S.C. 1999, c. 33

Canadian Environmental Protection Act (CEPA 1999) S.C. 1999, c. 33		
Section	**Brief Description**	**Location in ICP**
95 (1)	Where there occurs or is a likelihood of a release into the environment of a substance specified on the List of Toxic Substances in Schedule 1 in contravention of a regulation made under section 92.1 or 93 or an order made under section 94, any person described in subsection (2) shall, as soon as possible in the circumstances, (a) subject to subsection (4) and any regulations made under paragraph 97(b), notify an enforcement officer or any other person designated pursuant to the regulations and provide a written report on the matter to the enforcement officer or other person; (b) take all reasonable measures consistent with the protection of the environment and public safety to prevent the release or, if it cannot be prevented, to remedy any dangerous condition or reduce or mitigate any danger to the environment or to human life or health that results from the release of the substance or may reasonably be expected to result if the substance is released; and (c) make a reasonable effort to notify any member of the public who may be adversely affected by the release or likely release.	Core 2.2 Notification and Communication; Core 2.4.1.5 ICS Roles and Responsibilities, (Command Staff – Incident Commander, Liaison Officer, Public Information Officer); Core 2.4.6 Environmental Response; Annex 2.2.3 Enbridge Incident Reporting Standard

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Canadian Environmental Protection Act (CEPA 1999) S.C. 1999, c. 33		
Section	**Brief Description**	**Location in ICP**
169 (1)	Where there occurs or there is a likelihood of a release into the air of a substance in contravention of a regulation made under section 167, any person described in subsection (2) shall, as soon as possible in the circumstances, (a) subject to subsection (4) and the regulations, notify an enforcement officer or any other person designated pursuant to the regulations and provide a written report on the matter to the enforcement officer or other person; (b) take all reasonable measures consistent with the protection of the environment and public safety to prevent the release or, if it cannot be prevented, to remedy any dangerous condition or reduce or mitigate any danger to the environment or to human life or health that results from the release of the substance or may reasonably be expected to result if the substance is released; and (c) make a reasonable effort to notify any member of the public who may be adversely affected by the release or likely release.	Core 2.2 Notification and Communication; Core 2.4.1.5 ICS (Command Staff – Incident Commander, Liaison Officer, Public Information Officer); Core 2.4.6 Environmental Response; Core 2.4.9 Protection, Containment and Recovery; Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2.2.3 External Agencies and Support Resources

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Canadian Environmental Protection Act (CEPA 1999) S.C. 1999, c. 33		
Section	**Brief Description**	**Location in ICP**
179 (1)	Where there occurs or there is a likelihood of a release into waters of a substance in contravention of a regulation made under section 177, any person described in subsection (2) shall, as soon as possible in the circumstances (a) subject to subsection (4) and the regulations, notify an enforcement officer or any other person designated pursuant to the regulations and provide a written report on the matter to the enforcement officer or other person; (b) take all reasonable measures consistent with the protection of the environment and public safety to prevent the release or, if it cannot be prevented, to remedy any dangerous condition or reduce or mitigate any danger to the environment or to human life or health that results from the release of the substance or may reasonably be expected to result if the substance is released; and (c) make a reasonable effort to notify any member of the public	Core 2.2 Notification and Communication; Core 2.4.1.5 ICS Roles and Responsibilities, *(Command Staff – Incident Commander, Liaison Officer, Public Information Officer, Operations Section, Planning Section);* Core 2.4.6 Environmental Response; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard

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Canadian Environmental Protection Act (CEPA 1999) S.C. 1999, c. 33		
Section	**Brief Description**	**Location in ICP**
201 (1)	Subject to any regulations made under subsection 200(1) or any interim orders made under section 200.1, if there occurs an environmental emergency in respect of a substance on a list established under the regulations or interim orders, any person described in subsection (2) shall, as soon as possible in the circumstances, (a) notify an enforcement officer or any other person designated by regulation or interim order and provide a written report on the environmental emergency to the enforcement officer or other person; (b) take all reasonable emergency measures consistent with the protection of the environment and public safety (i) to prevent the environmental emergency, or (ii) to repair, reduce or mitigate any negative effects on the environment or human life or health that result from the environmental emergency or that may reasonably be expected to result from it; and (c) make a reasonable effort to notify any member of the public who may be adversely affected by the environmental emergency.	Core 2.2 Notification and Communication; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard
212 (1)	If a substance is released into the environment in contravention of a regulation, or if there is a likelihood of such a release, a person described in subsection (2) shall, as soon as possible in the circumstances, (a) subject to the regulations, notify an enforcement officer or any other person designated pursuant to the regulations and provide a written report on the matter to the enforcement officer or other person; (b) take all reasonable measures consistent with the protection of the environment and public safety to prevent or eliminate any dangerous condition or minimize any danger to the environment or to human life or health that results from the release or may reasonably be expected to result if the substance is released; and (c) make a reasonable effort to notify any members of the public who may be adversely affected by the release or likely release.	Core 2.2 Notification and Communication; Core 2.4.6 Environmental Response; Core 2.2.5 External Communications; Annex 2.2.3 External Agencies and Support Resources Annex 2.2.3 Enbridge Incident Reporting Standard

4.8 CEPA 1999 - Federal Halocarbon Regulations 2003

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Canadian Environmental Protection Act, 1999 Federal Halocarbon Regulations 2003 (SOR//2003-289)		
Section	**Brief Description**	**Location in ICP**
32(1)	In the event of a release of 100 kg or more of a halocarbon from a system, or from a container or equipment used in the reuse, recycling, reclamation or storage of a halocarbon, the owner of the system, container or equipment shall submit the following reports to the Minister, within the periods indicated: (a) within 24 hours after the release is detected, a verbal or written report, or a report in an electronic format compatible with that used by the Minister, that indicates the name of the owner, the type of halocarbon released and the type of system, container or equipment from which it was released; and (b) within 14 days after the release is detected, a written report, or a report in an electronic format compatible with that used by the Minister, containing the information set out in column 3 of item 8 of Schedule 2.	Annex 2 Notification Annex 2.2.3 Enbridge Incident Reporting Standard
33(1)	In the event of a release of more than 10 kg but less than 100 kg of a halocarbon from a system, or from a container or equipment used in the reuse, recycling, reclamation or storage of a halocarbon, the owner of the system, container or equipment shall submit to the Minister a report in written format, or in an electronic format compatible with that used by the Minister, that contains the information set out in column 3 of item 8 of Schedule 2.	
33(2)	The owner shall submit the release report required by subsection (1) twice annually, not later than 30 days after January 1 and July 1.	

4.9 Environmental Emergency Regulations SOR/2003-307

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Environmental Emergency Regulations SOR/2003-307		
Section	**Brief Description**	**Location in ICP**
9(1)	**Environmental Emergencies** If a substance set out in column 1 of Schedule 1, the person who is designated, for the purpose of paragraph 201(1)(a) of the Act, to be provided with a written report is the Regional Director of the Environmental Enforcement Division of the Enforcement Branch of the Department of the Environment in the region where the environmental emergency occurs.	Core 2.2 Notification and Communication; Core 2.2.1 Field Notifications; Core 2.2.2 Control Center; Core 2.2.3 Classification of the Incident; Annex 2.0 Notifications Overview; Annex 2.1 Emergency Responsibilities; Annex 2.2.3 Enbridge Incident Reporting Stand
9(2)	The report must include the following information: (c) the name, civic address and telephone number of the person who owns or has the charge, management or control of the substance released; (d) the date, time and location of the release; (e) the name and CAS registry number of the substance released; (f) the quantity of the substance released or, if the quantity cannot be determined, an estimate of it; (g) the identification of the container from which the substance was released and a description of its condition; (h) the location of the release and a description of potential negative effects on the environment or on human life or health; (i) a description of the circumstances and of the cause of the release, if known, and of the measures taken to mitigate any negative effects on the environment or on human life or health; (j) the identification of all persons and agencies that were notified as a result of the release; and all measures taken or planned to be taken to prevent similar releases.	

4.10 Nuclear Substances & Radiation Devices Regulations

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Nuclear Substances and Radiation Devices Regulations SOR/2000-207		
Section	**Brief Description**	**Location in ICP**
38(1)	**Environmental Emergencies** Every licensee who possesses or uses a nuclear substance or a radiation device and becomes aware of any of the following situations shall notify the Commission immediately of the location and circumstances of the situation and of any action that the licensee has taken or proposes to take with respect to it: (a) the nuclear substance or the radiation device is lost or stolen; (b) the radiation device is damaged to an extent that could impair its normal use; (c) the sealed source is separated from the radiation device when the latter is not being serviced; (d) the sealed source fails to return to the shielded position inside the radiation device; and (e) there is a spill of (i) an unsealed radioactive nuclear substance that is set out in column 1 of Schedule 1, that has produced in excess of 100 times the activity set out in column 3, and (ii) an unsealed radioactive nuclear substance that is not set out in column 1.	Core 2.2 Notification and Communication; Core 2.2.1 Field Notifications; Core 2.2.2 Control Center; Core 2.2.3 Classification of the Incident; Annex 2.0 Notifications Overview; Annex 2.1 Emergency Responsibilities; Annex 2.2.3 Enbridge Incident Reporting Stand

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Nuclear Substances and Radiation Devices Regulations SOR/2000-207		
Section	**Brief Description**	**Location in ICP**
38(2)	Every licensee referred to in subsection (1) or subsection 30(2) who becomes aware of a situation referred to in one of those subsections shall file a full report of the situation with the Commission within 21 days after the day on which the licensee becomes aware of it or within the period specified in the licence, and the report shall contain the following information: (a) a description of the situation, the circumstances and the problem, if any, with the radiation device; (b) the probable cause of the situation; (c) the nuclear substance, and if applicable, the brand name, model number and serial number of the radiation device involved; (d) the date, time and location where the situation occurred or, if unknown, the approximate date, time and location, and the date and time of becoming aware of the situation; (e) the actions that the licensee has taken to re-establish normal operations; (f) the actions that the licensee has taken or proposes to take to prevent a recurrence of the situation; (g) if the situation involved an exposure device, the qualifications of the workers, including any trainee, who were involved; (h) the effective dose and equivalent dose — as those terms are defined in subsection 1(1) of the Radiation Protection Regulations — received by any person as a result of the situation; and the effects on the environment, the health and safe- ty of persons and the maintenance of security that have resulted or may result from the situation.	Annex 2.2.3 Enbridge Incident Reporting Standard

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4.11 Consolidation of Environmental Protection Act

CONSOLIDATION OF ENVIRONMENTAL PROTECTION ACT R.S.N.W.T. 1988,c.E-7		
Section	**Brief Description**	**Location in ICP**
5.1	**Environmental emergency** Where a discharge of a contaminant into the environment in contravention of this Act or the regulations or the provisions of a permit or licence issued under this Act or the regulations occurs or a reasonable likelihood of such a discharge exists, every person causing or contributing to the discharge or increasing the likelihood of such a discharge, and the owner or the person in charge, management or control of the contaminant before its discharge or likely discharge, shall immediately (a) subject to any regulations, report the discharge or likely discharge to the person or office designated by the regulations; (b) take all reasonable measures consistent with public safety to stop the discharge, repair any damage caused by the discharge and prevent or eliminate any danger to life, health, property or the environment that results or may be reasonably expected to result from the discharge or likely discharge; and (c) make a reasonable effort to notify every member of the public who may be adversely affected by the discharge or likely discharge.	Core 1.5.5 Public Awareness & Education; Notification and Communication Core 2.2.4 Third-Party Notifications; Core 2.2.5 External Communication Annex 2.2.3 Enbridge Incident Reporting Standard Annex 2.0 Notifications Overview; Annex 2.1 Emergency Responsibilities;

4.12 Environmental Guideline for Ozone Depleting Substances & Halocarbon Alternatives

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Environmental Guideline for Ozone Depleting substances (ODSs) and Halocarbon Alternatives (GNWT, ENR, August 2007)		
Section	**Brief Description**	**Location in ICP**
3.1.1	**Reported Release** The following reporting limits are based on the Spill Contingency Planning and Reporting Regulations (1990) established under the Environmental Protection Act. Any release of an ODS or halocarbon alternative listed in Appendix A of this guideline, which is classified as a class 2 (Gases), class 9 (Miscellaneous Products, Substances or Organisms) or is not classified, under Transportation of Dangerous Goods Regulations (TDGR) from containers with a capacity greater than 100 L, must be reported immediately to the 24 Hour Spill Report Line by calling (867) 920-8130.	Section 2.2.3d Government Agencies Section 2.2.3i Enbridge Incident Reporting Standard
	Similarly, a release of 5L or greater of an ODS or halocarbon alternative listed in Appendix A of this guideline, and classified as a class 6 (Toxic and Infectious Substances), under TDGR, must be reported immediately to the 24 Hour Spill Report Line by calling (867) 920-8130.	
	The responsibility for reporting could lie with either the owner or operator of the air conditioning, refrigeration or fire extinguishing equipment or the service technician depending on the circumstances surrounding the leak or spill. The Spill Contingency Planning and Reporting Regulations, Section 9. (1) state, “The owner or person in charge, management or control of contaminants at the time a spill occurs shall immediately report the spill…”	

4.13 Boilers and Pressure Vessels Act R.S.N.W.T. 1988 cB-2

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Boilers and Pressure Vessels Act R.S.N.W.T. 1988 cB-2		
Section	**Brief Description**	**Location in ICP**
34(1)	34. (1) Where an explosion or rupture of a boiler, pressure vessel or plant occurs or an accident arises out of its operation or use that causes injury or death to a person or damage to property, the owner shall (a) in the case of an explosion or rupture, within 48 hours of the explosion or rupture, send the chief inspector a written report of the circumstances surrounding the explosion or rupture; and (b) in the case of an accident, immediately notify the chief inspector giving the chief inspector full details of the accident.	Section 2.2.3 Enbridge Incident Reporting Standard

4.14 Transportation of Dangerous Goods Act (1990)

Boilers and Pressure Vessels Act R.S.N.W.T. 1988 cB-2		
Section	**Brief Description**	**Location in ICP**
34(1)	**Duty to take action** Where there is a discharge of dangerous goods from a container, packaging or vehicle transporting dangerous goods, or there is a reasonable likelihood of such a discharge occurring, the person who owns or has charge of the dangerous goods at the time shall, as soon as possible in the circumstances, (a) in accordance with the regulations, report any discharge to an inspector or a person designated by regulation; (b) implement the emergency plans referred to in section 15; and (c) subject to any order made under section 31, take all other reasonable emergency measures consistent with public safety to repair or remedy any dangerous condition or reduce or mitigate any danger to life, health or the environment that results or may reasonably be expected to result from the discharge. Intervention by inspector.	Section 2.2.3d Government Agencies Section 2.2.3 Enbridge Incident Reporting Standard
34(2)	Where a person fails to take any measures required under subsection (1), an inspector or a person authorized or directed by an inspector may take those measures or cause them to be taken.	

4.15 Northwest Territories Land Use Regulation R-012-2014

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Northwest Territories Land Use Regulation R-012-2014		
Section	**Brief Description**	**Location in ICP**
19	A person may, in an emergency that threatens life, property or the natural environment, carry out any operation that he or she considers necessary to cope with the emergency, whether or not the operation is carried out in accordance with these regulations or any permit that the person holds, and the person shall immediately after carrying out the operation send a written report to the engineer describing the duration, nature and extent of the operation	Section 2.2.3d Government Agencies Section 2.2.3 Enbridge Incident Reporting Standard

4.16 Spill Contingency Planning and Reporting Regulations

Spill Contingency Planning And Reporting Regulations R-068-93		
Section	**Brief Description**	**Location in ICP**
9(1)	(1) The owner or person in charge, management or control of contaminants at the time a spill occurs shall immediately report the spill where the spill is of an amount equal to or greater than the amount set out in Schedule B.	Core 2.2 Notification Procedures; Annex 2.2.3 External Agencies and Support Resources;
9(2)	(2) Where there is a reasonable likelihood of a spill in an amount equal to or greater than the amount set out in Schedule B, the owner or person in charge, management or control of the contaminants shall immediately report the potential spill.	
10	A person reporting a spill shall contact the 24 Hour Spill Report Line by calling **(867) 920-8130.**	

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Spill Contingency Planning And Reporting Regulations F-063-93		
Section	**Brief Description**	**Location in ICP**
11	(1) A person reporting a spill shall give as much of the following information as possible: (a) date and time of spill; (b) location of spill; (c) direction spill is moving; (d) name and phone number of a contact person close to the location of spill; (e) type of contaminant spilled and quantity spilled; (f) cause of spill; (g) whether spill is continuing or has stopped; (h) description of existing containment; (i) action taken to contain, recover, clean up and dispose of spilled contaminant; (j) name, address and phone number of person reporting spill; (k) name of owner or person in charge, management or control of contaminants at time of spill.	Core 2.2 Notification Procedures; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex Enbridge Incident Reporting Standard
	(2) No person shall delay reporting a spill because of lack of knowledge of any of the factors listed in subsection (1).	

4.1 7 Forest Protection Act R.S.N.W.T. 1988, c.F-10

Forest Protection Act R.S.N.W.T. 1988,c.F-10		
Section	**Brief Description**	**Location in ICP**
6	6. (1) Every person who discovers a fire within a forest area or within one kilometre of a forest area shall (a) take all steps available to that person to extinguish the fire; and (b) report the fire or cause the fire to be reported to the nearest forest officer by the fastest available means of communication, whether or not that person believes the fire to be completely extinguished.	Core 2.2 Notification and Communication; Core 2.4.4 Hazard Specific Response Actions; Core 2.4.6 Environmental Response; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard

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4.18 Oil and Gas Conservation Alberta Regulation 151/1971

Oil and Gas Conservation Rules Alberta Regulation 151/1971		
Section	**Brief Description**	**Location in ICP**
8.050 (1)	When oil, water or unrefined product is spilled or released from a break or leak in a wellhead, tank, separator, treater or process vessel, the licensee of the well or operator of the facility from which the spill or release occurred shall immediately take reasonable steps to contain and clean up the spill or release and shall ensure that the spilled or released material is processed in the operator's facilities, if appropriate, or is treated or disposed of, or both, in accordance with Directive 058.	Core 2 Section 2.1 Discovery/Detection, Section 2.3 Initial Response. Section 2.4 Operations ore 2.4 Operations; Annex 1.6 Local Spill Response Equipment; Annex 1.8 Emergency Response Time Maps
8.051	Where oil, water or unrefined product is spilled while being transported, otherwise than by pipeline, from a well, pipeline or other facility over which the Regulator has jurisdiction to any other like facility, the licensee of a well or pipeline or operator of the facility and the owner of the transportation facility shall immediately (a) report the spill to the appropriate field centre of the Regulator and to Alberta Environment and Sustainable Resource Development, (b) take reasonable steps to contain and clean up the spill material, and (c) ensure that the spill material is treated or disposed of in accordance with Directive 058, unless otherwise approved by the Regulator.	

4.19 Pipeline Rules Alberta Regulation 91/2005

Pipeline Rules Alberta Regulation 91/2005		
Section	**Brief Description**	**Location in ICP**
8(1)	**Emergency response plans** A licensee of a pipeline shall prepare and maintain a corporate emergency response plan in accordance with the requirements of Directive 071 and shall submit a copy to the Regulator for review on request.	Region Integrated Contingency Plan

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Pipeline Rules Alberta Regulation 91/2005		
Section	**Brief Description**	**Location in ICP**
8(2)	A licensee of a pipeline conveying HVP product shall prepare a site-specific emergency response plan in accordance with Directive 071 and shall, (a) in the case of a pipeline that is not yet in operation, submit the plan to the Regulator and obtain the Regulator's approval of the plan before putting the pipeline into operation, and (b) in the case of a pipeline already in operation, submit the current site-specific emergency response plan for the pipeline to the Regulator for review.	N/A
8(3)	For a pipeline conveying a product that contains hydrogen sulphide gas in the gas phase when the pipeline is operating at the licensed conditions, a licensee shall calculate the emergency planning zone in accordance with Directive 071 and determine whether any surface development exists or is taking place within the emergency planning zone.	N/A
8(4)	If any surface development exists or is taking place within the calculated emergency planning zone of a pipeline referred to in subsection (3), the licensee shall prepare a site-specific emergency response plan in accordance with Directive 071, and shall, (a) in the case of a pipeline that is not yet in operation, submit the plan to the Regulator and obtain the Regulator's approval of the plan before putting the pipeline into operation, and (b) in the case of a pipeline already in operation, submit the current site-specific emergency response plan for the pipeline to the Regulator for review.	N/A
8(5)	If there is no surface development within the calculated emergency planning zone of a pipeline referred to in subsection (3), the licensee shall prepare and maintain a corporate emergency response plan in accordance with Directive 071 and shall submit a copy to the Regulator for review on request.	Region Integrated Contingency Plan
8(6)	A licensee of a pipeline shall, in accordance with Directive 071, (a) update all emergency response plans for the pipeline, as necessary, (b) conduct training exercises in carrying out emergency response plans, and (c) ensure that it is capable of adequately responding to spills.	Annex 1 of the ICP

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Pipeline Rules Alberta Regulation 91/2005		
Section	**Brief Description**	**Location in ICP**
76	**Report of leak, break or contact damage** If a leak, break or contact damage has been reported to the Regulator in accordance with section 35 of the Act or section 27 of these Rules, the licensee shall on request submit to the Regulator a written report indicating (a) the time the leak, break or contact damage occurred, (b) the approximate quantity of substance lost, if any, (c) the method of repair, if applicable, (d) the conditions that caused or contributed to the leak, break or contact damage and any substantiating reports, (e) the steps to be taken to prevent similar occurrences in the future, (f) information regarding the spill containment and recovery techniques, and (g) any other information that the Regulator may request.	Annex 2.2.3 Enbridge Incident Reporting Standard
77)	**Containment of leak or break** If oil, salt water or other deleterious liquids escape from a leak or break in a pipeline, the licensee shall, on detection of the leak or break, take immediate steps to stop the source of release and contain and clean up the spill.	Core 2 Section 2.1 Discovery/Detection, Section 2.3 Initial Response. Section 2.4 Operations ore 2.4 Operations; Annex 1.6 Local Spill Response Equipment; Annex 1.8 Emergency Response Time Maps

4.20 Pipeline Act Revised Statutes of Alberta 2000

Pipeline Act Revised Statutes of Alberta 2000 Chapter P-15		
Section	**Brief Description**	**Location in ICP**
35 (1)	When a leak or break occurs in a pipeline, the licensee shall immediately cause the Regulator to be informed of the location of the leak or break.	Core 2.2 Notification Procedures; Annex 2 Notification Procedures Annex 2.2.3 External Agencies and Support Resources; Enbridge Incident Reporting Standard

4.21 Environmental Protection and Enhancement Act

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Revised Statutes of Alberta 2000 Chapter E-12		
Section	**Brief Description**	**Location in ICP**
110(1)	A person who releases or causes or permits the release of a substance into the environment that may cause, is causing or has caused an adverse effect shall, as soon as that person knows or ought to know of the release and report it.	Core 2.1 Discovery and Detection, Core 2.2 Notification and Communication, Annex 2.2.3 Enbridge Incident Reporting Standard
111(1)	A person who is required to report to the Director pursuant to section 110 shall report in person, by telephone or by electronic means and shall include the following in the report, where the information is known or can be readily obtained by that person.	
112(1)	Where a substance that may cause, is causing or has caused an adverse effect is released into the environment, the person responsible for the substance shall, as soon as that person becomes aware of or ought to have become aware of the release.	

4.22 Release Reporting Regulation 117/1993

Release Reporting Regulation Alberta Regulation 117/1993		
Section	**Brief Description**	**Location in ICP**
3(1)	Subject to section 2(a), where a release of a substance falling within the Class set out in the first column of the Table in section 8.1(1) of Part 8 of the Transportation of Dangerous Goods Regulations (SOR 2001-286) under the Transportation of Dangerous Goods Act, 1992 (Canada) occurs and the release has caused, is causing or may cause an adverse effect, sections 110 to 112 of the Act and this Regulation apply in respect of the release only if (a) the release is at or in excess of the quantity or emission levels set out for the substance in the Table in section 8.1(1) of Part 8 of the Transportation of Dangerous Goods Regulations (SOR 2001-286), or (b) the substance is released into a watercourse or into groundwater or surface water.	Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard
3(2)	Subsection (1)(b) applies regardless of whether the quantity or emission level of the release is at or in excess of the levels set out for the substance in the Table in section 8.1(1) of Part 8 of the Transportation of Dangerous Goods Regulations (SOR 2001-286).	

4.23 Dangerous Goods Transportation & Handling Act

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Dangerous Goods Transportation And Handling Act Revised Statutes of Alberta 2000 Chapter D-4		
Section	**Brief Description**	**Location in ICP**
13 (1)	**Actual or imminent release - duties** Where a release of dangerous goods in excess of a prescribed quantity or concentration occurs or is imminent from a means of containment being used to handle or transport dangerous goods, any person who at the time has the charge, management or control of the means of containment shall make a report of the occurrence or imminence of the release in the prescribed manner and containing the prescribed information to a prescribed person.	Core 2.2 Notification Procedures; Annex 2 Notification Procedures Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.*3* Enbridge Incident Reporting Standard
13 (2)	A person who is required by subsection (1) to make a report shall, as soon as possible in the circumstances, take all reasonable emergency measures to reduce or eliminate any danger to public safety that results or that may reasonably be expected to result from the release.	
13 (3)	A report under subsection (1) need not be made in such circumstances as are prescribed.	

4.24 Pressure Equipment Safety Regulation 49/2006

Pressure Equipment Safety Regulation Alberta Regulation 49/2006 including Regulation 195/2015		
Section	**Brief Description**	**Location in ICP**
35(1)	Unsafe condition, accident or fire The owner of pressure equipment must forthwith report to the Administrator under section 59 of the Act any unsafe condition, accident or fire that occurs with respect to that pressure equipment. (2) If an accident involving pressure equipment occurs and the accident results in damage to property or an injury to or death of a person, the owner or person in charge must send a full report in writing to the Administrator as soon as possible after the accident and must specify in the report	Annex 2.2.*3* Enbridge Incident Reporting Standard
35(2)	If an accident involving pressure equipment occurs and the accident results in damage to property or an injury to or death of a person, the owner or person in charge must send a full report in writing to the Administrator as soon as possible after the accident and must specify in the report (a) the exact place of the accident, (b) the name of any person killed or injured as a result of the accident, (c) a description of any damage to the property, (d) the cause and particulars of the accident, as far as may be ascertained, and (e) any other information that may be required by the Administrator	

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Pressure Equipment Safety Regulation Alberta Regulation 49/2006 including Regulation 195/2015		
Section	**Brief Description**	**Location in ICP**
35(3)	If an accident or fire referred to in subsection (1) has occurred, no person shall remove or interfere with anything in, on or about the place where the accident or fire occurred without the permission of a safety codes officer unless it is necessary to do so to prevent further injury or property damage.	Annex 2.2.*3* Enbridge Incident Reporting Standard

4.25 Directive 071 Corporate Level ERP Requirements

Directive 071 Revised edition November 18, 2008, including errata of November 2009 Corporate Level ERP Requirements		
Section	**Brief Description**	**Location in ICP**
2.1 (1)	The licensee must have a corporate-level ERP with pre-planned procedures that will aid in effective response to an emergency. The licensee is expected to determine the level of detail required to address each item in a corporate-level ERP based on the hazards and potential consequences of the emergency scenarios that its operations pose to the public and/or environment and to keep the plans current. Corporate-level ERPs do not require AER approval; however, the AER may request that they be submitted for review.	Core 2.4.3 Hazard-Specific Response Actions; Core 2.4.6 Environmental Response; Core 2.4.7 Waste and Disposal Annex 2.2.3 External Agencies and Support Resources;
	As a minimum, the licensee must include the following information in its ERP: • key licensee contacts • a 24-hour licensee emergency contact telephone number	Refer to next page

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Directive 071 Revised Edition November 18, 2008 including Errata of November 2009 Corporate Level ERP Requirements		
Section	**Brief Description**	**Location in ICP**
2.1 (2) cont.	• a method of classifying incidents and response actions for specific incidents	Core 2.2.3 Classification of the Incident; Core 2.4.1.2 Incident Command Structure; Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.4 Roles and Responsibilities, (Incident Commander)
	A communications plan that addresses the following: • communications with response team, support services and government • communication with the public and media, and • downgrading and stand-down of emergency levels	Core 2.0.1 Guiding Objectives #10; Core 2.2 Notification Procedures; Core 2.3.4.2 Community Evacuation; Core 2.2.3 Classification of the Incident; Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.4 Roles and Responsibilities, (Public Safety Leader, Public Information Officer, Telephone Unit, Incident Commander and Operations Section Chief); Core 2.5 Demobilization
	• responsibilities of personnel required to respond to an emergency	Core 2.4.1.5 Roles and Responsibilities

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Directive 071 Revised Edition November 18, 2008 including Errata of November 2009 Corporate Level ERP Requirements		
Section	**Brief Description**	**Location in ICP**
2.1 (2) cont.	• establishment of incident management systems	Core 1.4.1 Enbridge Emergency Response and Support Teams Hierarchy; Core 2.4.1 Enbridge's Response Management System; Annex 2.2.2 Incident Management Team
	• activation of a reception centre	Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities, (Public Safety Leader and Reception Center Unit);
2.1 (3)	The licensee must ensure that a call to its 24-hour emergency telephone number initiates immediate action.	Core 2.1.1.1 Pressure Alarm; Core 2.1.1.2 Discharge Mitigation Core 2.2 Notification Procedures; Core 2.3 Initial Response; Annex 2.0.1 Emergency Notification / Activation
2.1 (4)	The licensee must ensure that a call to its 24-hour is posted by way of a conspicuous sign erected at the primary entrance to all licensee wells and facilities.	N/A
2.1.1 (5)	The licensee must include all the information in Appendix 4 in its corporate-level ERP.	Core 2.2.3 Classification of the Incident; Annex 2.2 Incident Reporting Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities, (Public Safety Leader and Reception Center Unit);
2.1.1 (6)	The licensee must define appropriate actions, including public protection measures that would be taken for each level of emergency	

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Directive 071 Revised Edition November 18, 2008 including errata of November 2009 Corporate Level ERP Requirements		
Section	**Brief Description**	**Location in ICP**
2.1.2 (7) cont	In its corporate-level ERP, 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	Core 2.0.1 Guiding Objectives, #9 & #10; Core 2.1.1.1 Pressure Alarm' Core 2.1.1.2 Discharge Mitigation Core 2.2 Notification Procedures; Core 2.3.4.2 Community Evacuation; Core 2.4.1 Enbridge's Response Management System Core 2.4.1.2 Incident Command Structure; Core 2.4.1.5 ICS Roles and Responsibilities, (Liaison Officer, Public Safety Leader, Public Information Officer and Telephone Unit); Annex 2.2 Notification
	• clearly define the responsibility to contact the AER and other responders in the event of an emergency; the AER recommends that a communications flow chart be included in the ERP, identifying responsibilities by role	Annex 2.0.1. Emergency Notification / Activation; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3i *Enbridge Reporting Standard*

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Directive 071 Revised Edition November 18, 2008 including Errata of November 2009 Corporate Level ERP Requirements		
Section	**Brief Description**	**Location in ICP**
2.1.2 (7) cont	• 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; this includes plans for communicating the implementation of public protection measures, such as evacuation and sheltering in place for residents	Core 2.0.1 Guiding Objectives, #10; Core 2.2 Notification Procedures; Core 2.3.4.2 Community Evacuation; Core 2.4.1. Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities, (Public Safety Leader, Public Information Officer, and Telephone Unit)
	• 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	Core 2.2.5 External Communications; Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities (Public Information Officer, Incident Commander and Operations Section Chief)
	•describe procedures to downgrade and stand-down levels of emergency	Core 2.4.1 Enbridge's Response Management System Roles and Responsibilities, (Incident Commander); Core 2.5 Demobilization

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Directive 071 Revised Edition November 18, 2008 including Errata of November 2009 Corporate Level ERP Requirements		
Section	**Brief Description**	**Location in ICP**
2.1.3 (8)	The licensee must identify the roles and responsibilities of personnel required to effectively respond to an emergency. One or more functions can be assigned to an individual depending on the complexity of the potential response to an emergency.	Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities; Annex 1.7 Evacuation
2.1.4 (9)	In its corporate-level ERP, the licensee must: • describe how it will manage and coordinate a response to an emergency	Core 2.0.1 Guiding Objectives, #3; Core 2.4.1.7 Expanding Incidents / Unified Command
	• Address the roles and responsibilities of personnel at its on-site command post, the company regional emergency operations centre (REOC), and the corporate EOC	Core 2.4.1.3 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities; Core 2.4.1.6 Command Posts
2.1.5 (10)	In its corporate-level ERP, the licensee must set out the procedures for: • activating a reception centre located at a safe distance from the release source, and	Core 2.4.1.3 ICS 207 Organizational Chart; Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities, (Public Safety Leader)
	• Meeting and registering evacuees at the reception centre	Core 2.4.1 Enbridge's Response Management System; Core 2.4.1.5 ICS Roles and Responsibilities, (Reception Center Unit)

4.26 Ozone Depleting Substances & Halocarbons

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Ozone Depleting Substances and Halocarbons Regulation (Alberta Regulation 181/2000)		
Section	**Brief Description**	**Location in ICP**
2(1)	**General prohibition** Unless subsection (3) or (4) is not contravened or unless permitted by any enactment of Alberta or Canada or by approval, no person shall release or permit the release of an ozone-depleting substance or halocarbon into the environment.	Core 2.2 Notification and Communication; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard
8 (1)	**Returns and reports** The Director may by notice in writing directed to the person responsible for an ozone-depleting substance or a halocarbon (a) require any returns or reports respecting a release of the ozone-depleting substance or halocarbon into the environment resulting from the construction, operation or reclamation of a plant, structure or thing, (b) specify the manner and frequency of sampling, recording and reporting of the performance of a plant, structure or thing from which the ozone-depleting substance or halocarbon is or could be released into the environment, and (c) specify an analytical method for determining the presence of the ozone-depleting substance or halocarbon at a plant, structure or thing that has affected, is affecting or may affect air emissions from the plant, structure or thing.	
8 (2)	(2) A person who receives a notice in writing under subsection (1) must comply with it in accordance with its terms.	

4.27 Forest and Prairie Protection Regulation Alberta

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Forest and Prairie Protection Act Revised Statues of Alberta 2000 Chapter F-19		
Section	**Brief Description**	**Location in ICP**
11	**Fire Prevention — Industrial Operations** Industrial operations in or near forest protection area An owner or operator of an industrial operation or industrial camp located in or within one kilometre of a forest protection area shall, unless otherwise authorized by a forest officer, (a) keep the area in which the industrial operation or industrial camp is located clear of all timber, vegetation and combustible material, (b) maintain a cleared distance of not less than 30 metres between the industrial operation or industrial camp and the closest standing timber, and (c) maintain a clear, bare mineral soil surface extending at least 8 metres around any burner, pit or other source of fire.	Core 2.2 Notification and Communication; Core 2.4.4 Hazard Specific Response Actions; Core 2.4.6 Environmental Response; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard
15 (1)	**Pipelines endangered by fire 15(1) In this section**, (a) “installation” means an installation as defined in the Pipeline Act; (b) “licensee” means a licensee as defined in the Pipeline Act and includes any agent of the licensee approved under section 19 of the Pipeline Act; (c) “pipeline” means a pipeline as defined in the Pipeline Act, but does not include a pipe used to convey water.	
15 (2)	(2) The licensee of a pipeline or an installation that is endangered by a fire shall, as soon as the licensee knows or ought to know of the fire, unless otherwise approved by the Minister, (a) immediately shut off every well supplying the pipeline, (b) immediately depressurize every pipeline located within one kilometre of the fire, and (c) notify the Minister in writing when the licensee has complied with the requirements of clauses (a) and (b).	
15 (3)	(3) A licensee who is required to comply with subsection (2) shall not repressurize the pipeline until the licensee is notified in writing by the Minister that the licensee may do so.	

4.28 Forest and Prairie Protection Act

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Forest and Prairie Protection Act Revised Statues of Alberta 2000 Chapter F-19		
Section	**Brief Description**	**Location in ICP**
10(1)	**Control of fire hazards** 10(1) If the council of a municipal district finds within its boundaries on privately owned land or occupied public land conditions that in its opinion constitute a fire hazard or a burning hazard, it may order the owner or the person in control of the land on which the hazard exists to reduce, remove or eliminate the hazard within a fixed time and in a manner prescribed by the council.	Core 2.2 Notification and Communication; Core 2.4.4 Hazard Specific Response Actions; Core 2.4.6 Environmental Response; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard
10(1)	(2) When the council of a municipal district finds that the order it made pursuant to subsection (1) has not been carried out, it may enter on the land with any equipment and persons it considers necessary and may perform the required work.	
10(1)	(3) The owner or the person in control of the land on which work was performed pursuant to subsection (2) shall on demand reimburse the council of the municipal district for the cost of the work performed and in default of payment the council has a lien for the amount against the land and improvements on it.	
30	**Oil and gas pollution clean-up operations** 30 The Minister, on the request of any Minister or agency of the Government charged with responsibility in relation to pollution related to the oil and gas industry in Alberta, may authorize the use of employees and equipment of the Minister's Department for clean-up operations necessitated by the pollution and in that event forest officers and fire guardians may (a) require any able-bodied adult person not exempted by regulations to assist in clean-up operations, and (b) commandeer and authorize payment for the possession or use of any equipment for clean-up operations.	Core 2.2Notification and Communication; Core 2.4.4 Hazard Specific Response Actions; Core 2.4.6 Environmental Response; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard Deadlines Core 2.4.7 Waste and Disposal;

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Forest and Prairie Protection Act Revised Statutes of Alberta 2000 Chapter F-19		
Section	**Brief Description**	**Location in ICP**
41	Regulations 41 The Lieutenant Governor in Council may make regulations (a) respecting the issue and use of permits; (b) respecting forest fire prevention and control measures to be observed; (c) designating any part of Alberta as a forest protection area and respecting control measures applicable to it; (d) respecting the prevention and control of injurious forest tree pest infestations or non-indigenous invasive species infestations; (e) prescribing maximum monetary penalties for the purposes of section 37(a) and (b); (f) respecting any other matter necessary or advisable to carry out effectively the intent and purpose of this Act.	Core 2.2 Notification and Communication; Core 2.4. Hazard-Specific Response Actions; Core 2.4.6 Environmental Response; Annex 2.2 Incident Reporting; Annex 2.2.3 External Agencies and Support Resources; Annex 2.2.3 Enbridge Incident Reporting Standard
42	Regulations 42 The Minister may make regulations (a) respecting the disposal of debris and waste materials; (b) respecting the use of airstrips on public land for firefighting purposes; (c) establishing and otherwise respecting training programs and facilities; (d) respecting the conduct of firefighting operations; (e) respecting the conduct of pollution clean-up operations; (e.1) prescribing the distance and providing for themanner of reporting for the purposes of section 11(3); (e.2) prescribing outdoor fires for the purposes of section 18(4); (f) respecting rates of payment for persons required to assist or for equipment commandeered under section 13 or 30;(g) respecting rates of payment for persons, equipment or services hired temporarily for operations for firefighting, pollution clean-up, controlling injurious forest tree pest infestations or non-indigenous invasive species infestations or dealing with any other emergency; (h) respecting the amounts and types of firefighting equipment required by industrial or commercial operations operating in or within one kilometre of public land; (i) respecting the manner of reducing fire hazards; (j) respecting precautions to be taken to prevent and suppress fires in a forest protection area; (k) designating any part of Alberta as a non-permit area.	

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Annex 5 – Table of Contents Page

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5.0 Distribution List

An updated Distribution List for this Plan is maintained on the Emergency Management SharePoint site. The plan is available to all staff on the Governance Document Library at https://esites.enbridge.com/sites/GDL/SitePages/Home.aspx

In addition to the Company Corporate Office, the entire Plan with appropriate Geographical Annexes will be kept at each regional office, with Qualified Individual / Incident Commander and with spill response trailers where appropriate. Additionally, the Field Emergency Response Plan is a concise truncated version of this plan, will be kept by designated response personnel.

5.1 Revision Process

The maintenance process for all Integrated Contingency Plans follows the IMS 07 Emergency Response Plans Development and Maintenance Process. The purpose of this process is to ensure that plans and other essential emergency response documents are developed, maintained and updated when required. The establishment and implementation of an Emergency Response Planning process is a requirement of the NEB.

The ICP will be reviewed annually or when an operating condition change occurs. Examples may include:

- Construction of a new terminal;
- Construction of new pipeline;
- The Qualified Individual / Incident Commander or designee as identified in *Annex 1* will be updated if needed to reflect accurate accountability in the Region;
- New response Procedures that would significantly alter how Enbridge manages a response.

The annual review process of the ICP Annexes will ensure that the most accurate drawings and references are integrated into the Plan.

In the event of a revision requirement before the annual review, a revision request to update the Core Plan and/or a Regional Annex may be submitted for consideration by completing and sending an ESM Management of Change Form, Part A (see next page) to the Document Owner of this Plan or to ESM@enbridge.com.

The Emergency Management Department is the ICP Administrator. All revision requests shall be forwarded to this Department. The revision request will be examined, prioritized and when the revision is integrated into the ICP electronic version, electronic notifications will be sent to the Region(s) and updates will be mailed out to hard copy plan holders.

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5.2 Record of Revisions

A simplified record of revisions can be found at the beginning of this document. A full detailed record of revisions for all Integrated Contingency Plans is kept with the Emergency Management Department.

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For internal use only ID:

Management of Change
PART A: Change Request Form

Change Requestor:	**Date:**
Department:	
Change Title:	**Published Version:**

PRIORITY

Priority:

☐ Non-Critical OR (Critical (Select one):

- ☐ Emergency & Security Management Department finding/mandated change
- ☐ Significant change in process, function and/or authority*
- ☐ Regulatory requirement / recommendation

DOCUMENT SECTION/ANNEX (if applicable)

Document Name:

Section Part/Annex Part Name & Number:

Page Number(s) or Major Document Revision:

REVISION REQUEST

Current Wording of process or document if known (or attached markup if available):

Proposed Wording (or attached markup)/Proposed Change:

Reason for Change (Please be specific):

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For internal use only ID:

Management of Change – PART A
Change Request Form

Suggested Stakeholders:
Impact of Change:
Risk of not doing change:

Submit PART A to esm@enbridge.com